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# OBJECTIVE CARDIOLOGY



**Mahesh Chandra**

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# OBJECTIVE CARDIOLOGY

**Mahesh Chandra**

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To

*My Wife*

**Mrs. Usha Agarwal**

&

*My Daughter*

**Dr. Swati Chandra**

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## **PREFACE**

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In this era of super-specialisation almost every postgraduate student has the zeal of acquiring training in a specialised way. One of the most fascinating branches for the students of Medicine is Cardiology. As the pattern of DM entrance examination is based on multiple choice questions and there is scarcity of such books, I took up this task and tried to fill the lacuna by writing a book containing MCQs for DM entrance exams and also supplementing it with updated version of recent advances. I have tried to cover each topic with appropriate stress upon often repeated facts.

The questions are authentic and the answer of each and every question has been checked from various textbooks.

Every effort is made to minimize grammatical errors and spelling mistakes. I hope that you would pardon me for any inadvertent error.

**Mahesh Chandra**

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## **ACKNOWLEDGEMENT**

I owe this book first and foremost to my wife, Mrs. Usha Agarwal and my daughter, Dr. Swati Chandra who made all the resources available to me for the making of this book and making no demands on my time when I was writing this book. In fact, it is our dream vision which has taken a real shape.

This book would not have been so complete without the help of my students Dr. Lanlan Jha, Dr. Saurabh Srivastva and Dr. Rupali Khanna of SGPGI, Lucknow; Prof. Pankaj Kumar, Dr. Pradeep Kumar, Dr. Arun Prasath, Dr. Ritesh Sangari, Dr. Akshyaya Kumar Pradhan, Dr. Vivek Raj Singh, Dr. Gaurav Chaudhary, Dr. Abhishek Singh, Dr. Abhilash Chandra, Dr. Shiresh Mishra, Dr. Rakesh Kumar and Dr. Jahangeer Rashid Beg of KGMU and Mr. Vikas Roy, Area Manager of New Age International (P) Limited, Publishers, Lucknow Branch.

In fact, all the residents of Medicine have given me immense support throughout.

**Mahesh Chandra**

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## **ABBREVIATIONS**

ASD	=	Atrial Septal Defect
ASH	=	Asymmetrical Septal Hypertrophy
ATVL	=	Anterior Tricuspid Valve Leaflet
AV	=	Atrioventricular
AVA	=	Aortic Valve Area
AVR	=	Aortic Valve Replacement
CAD	=	Coronary Artery Disease
CO	=	Cardiac Output
CS	=	Coronary Sinus
CT	=	Computed Tomography
ECG	=	Electrocardiogram
Echo	=	Echocardiography
EF	=	Ejection Fraction
HCM	=	Hypertrophic Cardiomyopathy
HOCM	=	Hypertrophic Obstructive Cardiomyopathy
HR	=	Heart Rate
LA	=	Left Atrium
LAA	=	Left Atrial Appendage
LADCA	=	Left Anterior Descending Coronary Artery
LAE	=	Left Atrial Enlargement
LPA	=	Left Pulmonary Artery
LV	=	Left Ventricle
LVH	=	Left Ventricular Hypertrophy
LVE	=	Left Ventricular Enlargement

LVI	=	Left Ventricular Inflow
MI	=	Myocardial Infarction
MR	=	Mitral Regurgitation
MRI	=	Magnetic Resonance Imaging
MS	=	Mitral Stenosis
PA	=	Pulmonary Artery
PD	=	Pulsed Doppler
PDA	=	Patent Ductus Arteriosus
PDA	=	Posterior Descending Artery
PE	=	Pericardial Effusion
RA	=	Right Atrium
RAE	=	Right Atrial Enlargement
RCA	=	Right Coronary Artery
RCC	=	Right Coronary Cusp
RF	=	Regurgitant Fraction
SV	=	Stroke Volume or Sample Volume
SVC	=	Superior Vena Cava
TOF	=	Tetralogy of Fallot
TR	=	Tricuspid Regurgitation
TS	=	Tricuspid Stenosis
TSV	=	Total Stroke Volume
VAS	=	Ventriculo Atrial Septum
VSD	=	Ventricular Septal Defect
WPWS	=	Wolff-Parkinson-White Syndrome

## CONTENTS

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## SECTION-1

# CLINICAL AND INVESTIGATIONAL CARDIOLOGY

1. **Loud first heart sound is heard in**
  - (a) Mitral stenosis
  - (b) Mitral regurgitation
  - (c) Mitral valve prolapse
  - (d) Calcified mitral stenosis
2. **Commonest cause of pulsus paradoxus is**
  - (a) Cardiac tamponade
  - (b) Adhesive pericarditis
  - (c) Constrictive pericarditis
  - (d) Chylopericardium
3. **Roth's spots are seen in the**
  - (a) Pharynx
  - (b) Heart
  - (c) Fundus
  - (d) Palms
4. **Bisferiens pulse may be seen in all except**
  - (a) Combined aortic stenosis + Aortic regurgitation
  - (b) Hypertrophic subaortic stenosis
  - (c) Normal individuals
  - (d) Chronic severe atrial regurgitation
5. **Cannon 'a' waves are seen in**
  - (a) Sinus bradycardia
  - (b) Complete heart block
  - (c) Pulmonary stenosis
  - (d) Atrial fibrillation
6. **Anacrotic pulse is present in**
  - (a) Aortic regurgitation
  - (b) Mitral regurgitation
  - (c) Mitral stenosis
  - (d) Aortic stenosis

- 7. Pulsus alternans is seen in**
- (a) Left ventricular failure
  - (b) Digitalis poisoning
  - (c) Aortic stenosis with aortic regurgitation
  - (d) Mitral stenosis with mitral regurgitation
- 8. Electrical alternans is pathognomic of**
- (a) Pericardial tamponade
  - (b) Pericardial effusion
  - (c) Left ventricular failure
  - (d) All of the above
- 9. Rib notching is seen in**
- (a) Patent ductus arteriosus
  - (b) Ventricular septal defect
  - (c) Coarctation of aorta
  - (d) Tetralogy of fallot
- 10. Mid diastolic rumble in the tricuspid region is found in which of the following.**
- (a) Atrial septal defect
  - (b) Ventricular septal defect
  - (c) Patent ductus arteriosus
  - (d) Mitral regurgitation
- 11. Graham steel murmur is heard in**
- (a) Aortic regurgitation
  - (b) Pulmonary hypertension
  - (c) Aortic stenosis
  - (d) Tricuspid stenosis
- 12. Which statement is true for left ventricular free wall thickness?**
- (a) Uniform
  - (b) Thickest toward apex
  - (c) Thickest toward base
  - (d) Thickest in mid segment
- 13. Papillary muscles are not found in**
- (a) Mitral valve
  - (b) Aortic valve
  - (c) Tricuspid valve
  - (d) All the above

- 14. Current technique of bed side assessment of jugular venous pressure was described by**  
(a) Pierre-carl potain (b) James mackenzie  
(c) Claudius galen (d) Thomas lewis
- 15. Nobel prize in electrocardiography was given to**  
(a) Von kalliker (b) Augsentus walter  
(c) William einthoven(d) None of the above
- 16. Which tricuspid leaflet is least mobile?**  
(a) Anterior (b) Posterior  
(c) Septal (d) None of these
- 17. Which is the smallest tricuspid leaflet?**  
(a) Anterior (b) Posterior  
(c) Septal (d) None of these
- 18. Coronary origin of angina was first appreciated by**  
(a) William heberden (b) Edward jenner  
(c) John hunter (d) None of the above
- 19. Mean pulmonary arterial pressure is best estimated by**  
(a) Loud P2  
(b) Narrow split S2  
(c) Right ventricular heave  
(d) Diameter of the right pulmonary artery at the widest point
- 20. P mitrale has all the following features except**  
(a) More than normal duration  
(b) Best seen in L1  
(c) Notched  
(d) Flat top
- 21. ECG–RVH in mitral stenosis suggest all except.**  
(a) Bad prognosis without surgery  
(b) More prone to right ventricular failure  
(c) More prone to infective endocarditis  
(d) None of the above

- 22. Most specific sign of pulmonary hypertension in mitral stenosis is**
- (a) P2 loud
  - (b) P2 palpable
  - (c) ESM in PA
  - (d) Right ventricular heave
- 23. In mild mitral stenosis the diastolic murmur is confined to**
- (a) Middiastole
  - (b) Presystolic
  - (c) Both middiastolic and presystolic murmur with gap between two
  - (d) Holodiastolic
- 24. Non significant mitral regurgitation in presence of mitral stenosis is suggested by**
- (a) Presence of presystolic murmur
  - (b) Absence of loud S1
  - (c) Absence of opening snap
  - (d) None of the above
- 25. A patient having loud S1 with atrial fibrillation the most common diagnosis is**
- (a) Constrictive pericarditis
  - (b) Cor pulmonale
  - (c) Mitral stenosis
  - (d) Mitral regurgitation
- 26. What S2–OS duration means that mitral stenosis is critical?**
- (a) > 0.10 sec
  - (b) 0.1 sec
  - (c) 0.09 sec
  - (d) < 0.08 sec
- 27. Normal diastolic mitral valve flow is approximately**
- (a) 70 ml/sec
  - (b) 100 ml/sec
  - (c) 150 ml/sec
  - (d) 200 ml/sec
- 28. Boot shaped cardiac silhouette is characteristic of**
- (a) Aortic stenosis
  - (b) Mitral stenosis
  - (c) Aortic regurgitation
  - (d) Transposition of great arteries

- 29. All the following statements are incorrect regarding pulmonary regurgitation except**
- (a) Murmur increases with hand grip
  - (b) Comes after A2
  - (c) Murmur decreases with amyl nitrite
  - (d) Murmur begins just after P2
- 30. Austin flint murmur has all the features except**
- (a) S3 is present
  - (b) Opening snap is present
  - (c) Left ventricular enlargement is present
  - (d) Murmur decreases with amyl nitrite
- 31. Pulsus parvus occurs in**
- (a) Compensated aortic stenosis
  - (b) Aortic stenosis and aortic regurgitation
  - (c) Decompensated aortic stenosis
  - (d) All the above
- 32. All statements regarding cooing dove murmur are correct except**
- (a) Musical murmur of aortic stenosis
  - (b) Musical murmur of aortic regurgitation
  - (c) Due to perforation of aortic cusp
  - (d) Occurs in aortic valve infective endocarditis
- 33. Ascending aorta dilatation is usual in the all following except**
- (a) IHSS
  - (b) Congenital supra-avalvular aortic stenosis
  - (c) Congenital valvular aortic stenosis
  - (d) Congenital subvalvular aortic stenosis
- 34. Double apex beat is usually found in**
- (a) IHSS
  - (b) Aortic stenosis
  - (c) Supra-avalvular aortic stenosis
  - (d) None of the above
- 35. Aortic ejection sound is most commonly found in**
- (a) Congenital valvular stenosis
  - (b) Acquired valvular aortic stenosis
  - (c) Congenital subvalvular stenosis
  - (d) Congenital supra-avalvular stenosis

- 36. Which of the following is a sail sound?**  
(a) Normal M1      (b) Normal T1  
(c) Exaggerated T1      (d) Exaggerated M1
- 37. Reverse splitting of S1 is found in all except**  
(a) Right ventricular pacing  
(b) Severe aortic stenosis  
(c) Left atrial myxoma  
(d) Right bundle branch block
- 38. All are high frequency heart sound except**  
(a) A2      (b) P2  
(c) S4      (d) Non ejection sound
- 39. Summation fallop is a fusion of**  
(a) A2 and P2      (b) M1 and T1  
(c) S3 and S4      (d) All of the above
- 40. Most common cause of kussmauls sign is**  
(a) Constrictive pericarditis  
(b) Severe right side heart failure  
(c) Right ventricle infarction  
(d) Cardiac tamponade
- 41. Giant 'a' wave is most commonly present in**  
(a) PS  
(b) PS with VSD  
(c) PS with ASD  
(d) PS with ASD and VSD
- 42. Bisferiens pulse is found in all of the following except**  
(a) Aortic regurgitation  
(b) Aortic stenosis + Aortic regurgitation  
(c) HCM  
(d) Mitral regurgitation
- 43. Central venous pressure and wave forms are best appreciated in**  
(a) Right internal jugular vein  
(b) Left internal jugular vein  
(c) Right external jugular vein  
(d) None of the above

- 44. Osler's node has all of the following features except**
- (a) Present on distal pad of fingers
  - (b) Are non tender
  - (c) Reddish purple
  - (d) Tender
- 45. Pulsatile liver is found in which condition?**
- (a) Mitral regurgitation
  - (b) Tricuspid regurgitation
  - (c) Aortic stenosis
  - (d) None of the above
- 46. Katz-Wachtel phenomenon in ECG occurs in**
- (a) Mitral regurgitation
  - (b) Ventricular septal defect
  - (c) Tricuspid regurgitation
  - (d) Aortic stenosis
- 47. In severe chronic mitral regurgitation all are commonly found except**
- (a) S1 soft
  - (b) Wide split S2
  - (c) S3
  - (d) S4
- 48. All are contraindication to exercise testing in ischemic heart disease except**
- (a) Within 48hr of acute myocardial infraction
  - (b) High risk of unstable angina
  - (c) Sinus bradycardia with mild hypertension
  - (d) Symptomatic severe aortic stenosis
- 49. In presence of RBB block ST depression in which lead suggests presence of Ischemia?**
- (a) L1, aVL
  - (b) V2, V3
  - (c) V1
  - (d) L2, L3, aVF
- 50. Tall T waves in patients of hyperkalemia are differentiated from tall T waves of myocardial infarction by**
- (a) Tall 'P' wave
  - (b) Short QT interval
  - (c) Prolonged QT interval
  - (d) None of the above

- 51. False positive exercise test is found in all except**
- (a) Hypertension
  - (b) Aortic stenosis
  - (c) Recent food intake
  - (d) 1° AV block
- 52. Myocardial dysfunction is best assessed by**
- (a) History
  - (b) Physical examination
  - (c) Chest X-ray
  - (d) ECG
- 53. Myocardial ischemia is best assessed by**
- (a) Physical examination
  - (b) Resting ECG
  - (c) Exercise ECG
  - (d) Holter monitoring
- 54. Functional capacity of heart disease is best assessed by**
- (a) History
  - (b) ECG (Resting)
  - (c) Exercise ECG
  - (d) Physical examination
- 55. Valvular function is best assessed by**
- (a) Chest X-ray
  - (b) ECG exercise
  - (c) Echo
  - (d) All of the above
- 56. When is pulsus paradoxus is absent in cardiac tamponade?**
- (a) Associated with left ventricular failure
  - (b) Regional tamponade
  - (c) When associated with ASD
  - (d) All of the above
- 57. Which of the following is best for diagnosis of constrictive pericarditis?**
- (a) Chest X-ray
  - (b) CT
  - (c) Cine CT
  - (d) MRI
- 58. Which ECG feature is pathognomonic for cardiac tamponade?**
- (a) Low voltage QRS complex
  - (b) Generalized T wave inversion
  - (c) Abnormal Q waves
  - (d) Total electrical alternans

- 59. Which of the following is powerful predictor of cardiac tamponade?**
- (a) Anteriorly echo free space of 5 mm
  - (b) Posteriorly echo free space of 10 mm
  - (c) Circumferential echo free space > 10 mm
  - (d) None of the above
- 60. Peak gradient on doppler ultrasound suggestive of high likelihood of severe aortic stenosis is**
- (a) 60 mmHg
  - (b) 50 mmHg
  - (c) 70 mmHg
  - (d) > 80 mmHg
- 61. Myocardial disarray is found in all except**
- (a) Hypertrophic cardiomyopathy
  - (b) Hypertension
  - (c) Aortic stenosis
  - (d) Aortic regurgitation
- 62. Probable largest organ of body is**
- (a) Lungs
  - (b) Brain
  - (c) Endothelium
  - (d) Liver
- 63. Left ventricular enlargement in presence of LBBB is suggested by all except**
- (a) Left atrial enlargement
  - (b) Left axis deviation
  - (c)  $V2 S + V5 R = 45$  mm or more
  - (d) QRS duration > 0.14 S
- 64. Which statement is incorrect regarding still's murmur?**
- (a) Common in infancy
  - (b) Common after age 3 years
  - (c) Decreases towards adolescence
  - (d) Systolic vibratory murmur
- 65. Following ECG findings are strongly suggestive of acute cor pulmonale except**
- (a) S1-Q3-T3 pattern with T wave inversion in V1-V3
  - (b) S1-Q3-T3 pattern with RBBB
  - (c) RBBB
  - (d) S1-T3 pattern

- 66. All the following drugs causes false positive exercise test except**
- (a) Digitalis
  - (b) Diuretics
  - (c) Antidepressants
  - (d) Calcium blockers
- 67. All of the following drugs causes false negative exercise test except**
- (a) Nitrates
  - (b) Aspirin
  - (c) Propranolol
  - (d) Verapamil
- 68. Which arrhythmia is not indication for termination of exercise test?**
- (a) VT
  - (b) AT
  - (c) RBBB
  - (d) Atrial fibrillation
- 69. All the following findings are of clinical significance during exercise testing**
- (a) S3
  - (b) S4
  - (c) Systolic murmur at mitral area
  - (d) loud S1
- 70. All of the following are absolute contraindications to exercise test except**
- (a) Atrial fibrillation
  - (b) CHB
  - (c) Heart failure
  - (d) 1° AV block
- 71. Pseudo left axis deviation is found in**
- (a) Diffuse myocardial disease
  - (b) Diffuse pulmonary disease
  - (c) Left ventricular enlargement
  - (d) Left anterior fascicular block
- 72. S1, S2 and S3 syndromes are found in all except**
- (a) Right ventricular enlargement
  - (b) COPD
  - (c) Myocardial infarction
  - (d) RBBB
- 73. Negative T wave is found in all except**
- (a) Coronary artery disease
  - (b) Aortic regurgitation
  - (c) Mitral regurgitation
  - (d) Aortic stenosis

- 74. Tall T wave is found in all except**
- (a) Mitral stenosis
  - (b) Hyperkalemia
  - (c) Left ventricular enlargement
  - (d) Polycythemia
- 75. QT interval is prolonged in all except**
- (a) Left ventricular enlargement
  - (b) Acute myocardial infarction
  - (c) Mitral valve prolapse
  - (d) Digitalis
- 76. RSR' in V1 with prolonged QRS duration is found in**
- (a) RBBB
  - (b) RBBB with RV enlargement
  - (c) RBBB with left posterior hemiblock
  - (d) All of the above
- 77. Poor R wave progression is found in all of the following except**
- (a) COPD
  - (b) LBBB
  - (c) Anterior myocardial infarction
  - (d) PS
- 78. Fixed & wide split of S2 was first detected by**
- (a) Cardiac nurse      (b) Cardiac technician
  - (c) Cardiac resident    (d) Cardiac consultant
- 79. Snowman's heart on X-ray is found in**
- (a) Tetralogy of fallot
  - (b) Transposition of great vessels
  - (c) Total anomalous pulmonary venous drainage
  - (d) Pulmonary arteries-venous fistula
- 80. All are auscultatory features of cor triatriatum except**
- (a) Systolic murmur
  - (b) Early diastolic murmur at pulmonary area
  - (c) Loud P2
  - (d) Middiastolic murmur at mitral area

- 81. Narrow upper mediastinum with cardiomegaly is seen in**
- (a) Tetralogy of fallot
  - (b) Trilogy of fallot
  - (c) Complete transposition of great vessels
  - (d) None of the above
- 82. Right aortic arch is seen in all except**
- (a) TOF
  - (b) Pulmonary artesia with VSD
  - (c) Common arterial trunk
  - (d) ASD (OS)
- 83. High volume pulse in premature baby is found in**
- (a) ASD
  - (b) VSD
  - (c) PDA
  - (d) Atrial regurgitation
- 84. P mitrale suggest**
- (a) Right atrial enlargement
  - (b) Left atrial enlargement
  - (c) Right ventricle enlargement
  - (d) None of the above
- 85. Abnormal LAD of 'P' wave is found in**
- (a) OP ASD
  - (b) OS ASD
  - (c) SV ASD
  - (d) PFD
- 86. Which is least common auscultatory finding in pulmonary hypertension?**
- (a) Graham steel murmur
  - (b) Right sided S3
  - (c) Right sided S4
  - (d) Tricuspid regurgitation
- 87. All are common ECG findings of RVH in CLD except**
- (a) Partial RBBB with RAD
  - (b) Complete RBBB with normal axis
  - (c) R/S ratio in V1 > 1
  - (d) QR in V1

- 88. Pathologic LV S3 is found in all the following conditions except**
- (a) Left ventricular dysfunction
  - (b) Mitral regurgitation
  - (c) Restrictive cardiomyopathy
  - (d) Mitral stenosis
- 89. Pericardial knock has all following features except**
- (a) Occurs in constrictive pericarditis
  - (b) High pitched
  - (c) Best heard in expiration
  - (d) Best heard in inspiration
- 90. Paradoxical splitting of S2 has all the following features except**
- (a) Increases during inspiration
  - (b) Splitting maximum during expiration
  - (c) Found in LBBB
  - (d) Found in aortic stenosis
- 91. Early systolic murmur is found in all except**
- (a) TR with normal PAH
  - (b) TR with PAH
  - (c) Acute mitral regurgitation
  - (d) VSD
- 92. Apex beat is usually palpable in**
- (a) < 20%                      (b) < 40%
  - (c) About 50%                (d) 70%
- 93. Most specific indicator of left ventricle enlargement is**
- (a) Lateral shift from left mid clavicular line
  - (b) Down & outward shift from left mid clavicular line
  - (c) > 10 cm shift from mid sternal line
  - (d) Apical diameter > 3 cm
- 94. Which is the most specific feature of dyspnea due to left ventricle dysfunction?**
- (a) Dyspnea on exertion
  - (b) Orthopnea
  - (c) Paroxysmal nocturnal dyspnea
  - (d) All of the above

- 95. All are common causes of non cardiac syncope except**
- (a) Vaso vagal
  - (b) Situational
  - (c) Orthostatic hypotension
  - (d) Cardiovascular
- 96. Idiopathic dilatation of pulmonary artery has all the following features except**
- (a) Systolic murmur in pulmonary area
  - (b) Right ventricular hypertrophy
  - (c) Pulmonary ejection sound
  - (d) Mid systolic murmur in pulmonary area
- 97. Which right heart event decreases during inspiration?**
- (a) Murmur
  - (b) T1
  - (c) P2
  - (d) Ejection click
- 98. Left axis deviation of 'P' wave is found in which of the following?**
- (a) Ostium secundum ASD
  - (b) Ostium premium ASD
  - (c) Single atrium
  - (d) VSD
- 99. Complete A-V septal defect has all the features except**
- (a) Fixed split S2
  - (b) Left axis deviation
  - (c) Right ventricular hypertrophy
  - (d) Right axis deviation
- 100. All are modes of stress in stress echo except**
- (a) Dopamine
  - (b) Adenosine
  - (c) Dipyrimadole
  - (d) Isoprenaline
- 101. All following features regarding pulsus alternans are correct except**
- (a) Found in severe depression of left ventricular performance
  - (b) Better appreciated in carotid
  - (c) Confirmed by blood pressure Instruments
  - (d) Usually associated with left ventricular S3

- 102. Sustained pulsations in pulmonary area are found in all the following except**
- (a) Pulmonary hypertension
  - (b) Pulmonary stenosis
  - (c) Idiopathic dilatation of pulmonary artery
  - (d) ASD
- 103. Aortic ejection sound has all the features except**
- (a) Best heard on left sternal border
  - (b) Found in non calcific aortic stenosis
  - (c) Best heard in mitral area
  - (d) Best heard in 2nd intercostal space
- 104. Tall notched 'P' with is found in**
- (a) Emphysema
  - (b) Acute left ventricular failure
  - (c) Tachycardia
  - (d) Tricuspid atresia
- 105. Negative 'P' wave is found in all the following except**
- (a) True dextrocardia
  - (b) Left atrial rhythm
  - (c) Severe RA enlargement
  - (d) Low atrial rhythm
- 106. ECG finding in subarachnoid hemorrhage includes all except**
- (a) ST segment changes
  - (b) T wave inversion
  - (c) Short QT interval
  - (d) Isnacre
- 107. Which cardiac disease is not associated with sweating?**
- (a) Acute myocardial infarction
  - (b) Infective endocarditis
  - (c) Heart failure
  - (d) None of the above

- 108. Wide splitting S2 in constrictive pericarditis has following features except**
- (a) Abrupt and shut hand
  - (b) Occurs in expiration
  - (c) Occurs throughout inspiration
  - (d) Occurs in early inspiration
- 109. Pulsus paradoxus is best detected in**
- (a) Carotid
  - (b) Brachial
  - (c) Radial
  - (d) Femoral
- 110. ECG finding highly suggestive of TR is**
- (a) P pulmonale
  - (b) Atrial fibrillation
  - (c) RBBB
  - (d) QR in V1
- 111. All the following suggest severe mitral stenosis except**
- (a) Right ventricular hypertrophy
  - (b) S2-OS interval short
  - (c) Full length diastolic murmur
  - (d) Loud S1
- 112. Hilar dance on X-ray chest is feature of**
- (a) Mitral stenosis
  - (b) VSD
  - (c) ASD
  - (d) PDA
- 113. Mean right atrial pressure is**
- (a) 0.3 mm Hg
  - (b) 2.7 mm Hg
  - (c) 1.5 mm Hg
  - (d) 0.2 mm Hg
- 114. Large 'a' waves is seen in**
- (a) Tricuspid stenosis
  - (b) Right ventricular failure
  - (c) Pulmonary hypertension
  - (d) All of the above
- 115. Normal mean pulmonary artery pressure ranges between**
- (a) 19–29 mm Hg
  - (b) 0–9 mm Hg
  - (c) 9–19 mm Hg
  - (d) 9–29 mm Hg
- 116. In mild PAH the mean pulmonary artery pressure ranges between**
- (a) 9–19 mm Hg
  - (b) 20–29 mm Hg
  - (c) 39–49 mm Hg
  - (d) More than or equal to 50 mm Hg

- 117. PCWP may be greater than LA pressure in**
- (a) Venous occlusive disease of lungs
  - (b) Pulmonary venous thrombosis
  - (c) Pulmonary venous obstruction by a tumor mass
  - (d) All of the above
  - (e) None of the above
- 118. PCWP may be more than pulmonary artery diastolic pressure**
- (a) Acute VSD
  - (b) Acute mitral regurgitation
  - (c) Chronic mitral regurgitation
  - (d) Severe mitral stenosis
  - (e) All except C
- 119. In severe PVH the PCWP is between**
- (a) 13–19 mm Hg
  - (b) 20–24 mm Hg
  - (c) More than or equal to 25 mm Hg
  - (d) None of the above
- 120. Mitral valve area calculation by pressure half-time method is affected by all of the following except**
- (a) Left ventricular compliance
  - (b) Aortic regurgitation
  - (c) Pulmonary hypertension
  - (d) Mitral regurgitation
- 121. Displaced heart without cardiomegaly is featured by**
- (a) Lateral and upward
  - (b) Downward & lateral
  - (c) Upward only
  - (d) Downward only
- 122. Pulsations in right 1<sup>st</sup> & 2<sup>nd</sup> intercostal space occur with**
- (a) Coarctation of aorta
  - (b) Aneurysm of ascending aorta
  - (c) Supra valvular aortic stenosis
  - (d) None of the above

- 123. Central chest bulge frequently associated with**
- (a) PDA
  - (b) VSD Large
  - (c) TOF
  - (d) All of the above
- 124. Left chest bulge is after seen in**
- (a) Large ASD
  - (b) Large PDA
  - (c) PS
  - (d) AS
- 125. Jugular venous pressure is raised in all the following except**
- (a) Right heart failure
  - (b) High out put state
  - (c) Constrictive pericarditis
  - (d) Chronic lax pericardial effusion
- 126. Prominent x descent is found in which of the following?**
- (a) TR
  - (b) Atrial fibrillation
  - (c) Constrictive pericarditis
  - (d) Acute pericarditis
- 127. Enlargement of main PA only with normal right & left pulmonary A. suggests**
- (a) PS
  - (b) Eissenmenger syndrome
  - (c) Primary PA
  - (d) Idiopathic dilatation of PA
- 128. Cardiac calcification is rarely found in which of the following?**
- (a) Valves
  - (b) Pericardium
  - (c) Myocardium
  - (d) Aorta
- 129. Which of the following valve is rarely calcified?**
- (a) Mitral
  - (b) Aortic
  - (c) Pulmonary
  - (d) Tricuspid
- 130. Most common cause of rib notching is**
- (a) Aortic stenosis
  - (b) Coarctation of aorta
  - (c) Cyanotic congenital heart disease when subclavian artery is used for palliative shunt
  - (d) Superior vena cava occlusion

**131. Intermittent RBBB occurs in**

- (a) Acute myocardial infarction
- (b) Myocarditis
- (c) ASD
- (d) During paroxysmal SVT

**132. Most specific clinical sign for LV enlargement is**

- (a) Shift of apex beat from midclavicular line
- (b) Shift of apex beat from midsternal line
- (c) Size of apex beat
- (d) Any one of the above

**133. Presystolic accentuation of MDM not found in all except**

- (a) Mitral regurgitation
- (b) VSD
- (c) Anuthnia
- (d) Austin flint murmur

**134. At which valve the peak gradient is often used instead of valve orifice area?**

- (a) Pulmonary
- (b) Aortic
- (c) Mitral
- (d) All of the above

**135. Valvular regurgitant fraction indicating severe lesion is**

- (a) 20 - 40 %
- (b) 50 %
- (c) 55 %
- (d) 60 %

**136. Sphygmomanometer is used either in diagnosis or treatment in all the following except**

- (a) Cardiogenic edema
- (b) To bring out murmur of AR
- (c) Pulsus alternans
- (d) Mitral stenosis

**137. Total ischemic burden on ambulatory monitoring is indicative of poor prognosis**

- (a) 15 mts
- (b) 30 mts
- (c) 45 mts
- (d) > 60 mts

**146. Hoarseness of voice may occur in all except**

- (a) LA enlargement
- (b) PA dilation
- (c) Ascending aortic aneurysm
- (d) Arch of aorta aneurysm

**147. Einthovens triangle is constituted by all except**

- (a) Left arm – Right arm
- (b) LL – RA
- (c) LL – LA
- (d) RL – LA

**148. Splenomegaly is found in all except**

- (a) Severe heart failure
- (b) Constrictive pericarditis
- (c) Infective endocarditis
- (d) Rheumatic fever

**149. Continuous vascular murmur is heard when**

- (a) Obstruction is 40 % of luminal diameter
- (b) Obstruction is 50 % of luminal diameter
- (c) Obstruction is 60 % of luminal diameter
- (d) Obstruction is 80 % of luminal diameter

**150. Which investigation is best for determining cardiac chamber size?**

- (a) X-ray chest
- (b) Echocardiography
- (c) Radionuclide ventriculography
- (d) Myocardial scintigraphy

**151. Valvular stenosis/regurgitation are best shown by**

- (a) Echocardiography
- (b) Cardiac catheterization
- (c) Radionuclide ventriculography
- (d) Clinical examination

**152. Tissue characterisation is best done by**

- (a) X-ray chest
- (b) Echo
- (c) CC-expond
- (d) Radionucleotide ventriculography

- 153. Ventricular diastolic function is best determined by**
- (a) Radionuclide ventriculography
  - (b) Echocardiography
  - (c) Clinical
  - (d) Myocardial scintigraphy
- 154. Coronary anatomy is best determined by**
- (a) Digital angiography
  - (b) MRI
  - (c) FCT expand
  - (d) Echocardiography
- 155. Investigation of choice in dilated cardiomyopathy**
- (a) X-ray
  - (b) Echocardiography
  - (c) Cardiac catheterisation
  - (d) Radionuclide study
- 156. Investigation of choice in infective endocarditis is**
- (a) Echocardiography
  - (b) FCT-expond
  - (c) MRI
  - (d) X-ray chest
- 157. Best investigation for pericardial disease is**
- (a) X-ray
  - (b) Echocardiography
  - (c) Cardiac catheterisation
  - (d) FCT-expond
- 158. Which function is least common in systolic heart failure?**
- (a) Cardiomegaly
  - (b) S3
  - (c) S4
  - (d) Mitral regurgitation functional
- 159. Valvular function is best assessed by**
- (a) Echo
  - (b) X-ray
  - (c) ECG
  - (d) Holter
- 160. Which finding is least common in diastolic heart failure?**
- (a) Hypertension
  - (b) S4
  - (c) Pulmonary congestion
  - (d) Soft heart sounds

**161. Syncope occurring with arm exercise is found in**

- (a) Atrial myxoma
- (b) Orthostatic hypotension
- (c) Vasovagal syncope
- (d) Subclavian steal

**162. Important causes of neurological syncope are**

- (a) TIA
- (b) Migraine
- (c) Epilepsy
- (d) Brain tumor

**163. Non infarction Q wave are found in all except**

- (a) Hypertrophic cardiomyopathy
- (b) Myocarditis
- (c) Cardiac amyloidosis
- (d) Acid base disturbances

**164. All following drugs may cause T wave inversion except**

- (a) Digoxin
- (b) Anti arrhythmics
- (c) Lithium
- (d)  $\beta$ -blockers

**165. Which of the continuous murmur is louder in diastole than systole?**

- (a) PDA
- (b) Arterial constriction
- (c) Mammary souffle
- (d) Venous hum

**166. Valsalva maneuver should not be performed in**

- (a) Mitral regurgitation
- (b) Aortic stenosis
- (c) IHSS
- (d) Ischemic heart disease

**167. Variable intensity of 1st heart sound is found in all except**

- (a) Atrial fibrillation
- (b) Atrial flutter with fixed block
- (c) Complete heart block
- (d) Ventricular tachycardia

- 168. All of the following are causes of wide splitting of S1 except**
- (a) RBBB
  - (b) ASD
  - (c) Ebsteins anomaly
  - (d) VSD
- 169. Prominent 'a' wave in JVP in cyanotic congenital heart disease suggests all the following except**
- (a) Tricuspid atresia
  - (b) Pulmonary atresia with intact IVS
  - (c) TAPVD
  - (d) Single ventricle
- 170. JVP is elevated in VSD in all the following except**
- (a) Small VSD
  - (b) Large VSD with HF
  - (c) A-V Canal VSD
  - (d) Gerbode's defect
- 171. All are the finding of JVP in cardiac tamponade except**
- (a) JV pressure is elevated
  - (b) X descent is prominent
  - (c) Y descent is prominent
  - (d) A & V wave are equal
- 172. Systolic retraction of apex beat occurs in all the following except**
- (a) Constrictive pericarditis
  - (b) ASD
  - (c) TR
  - (d) AS
- 173. Decreased pulmonary flow in congenital heart disease is determined by all the following except**
- (a) Usually no cardiac enlargement
  - (b) Left parasternal lift
  - (c) Systolic thrill in pulmonary area
  - (d) Palpable pulmonary artery
- 174. All are clinical features of increased pulmonary flow in congenital heart disease except**
- (a) Cardiac enlargement
  - (b) S3 with MDM in mitral area
  - (c) P2 Palpable
  - (d) Absence of heart failure

**175. All are high frequency murmur except**

- (a) AR
- (b) PR
- (c) MR
- (d) Organic TR

**176. All are high frequency sounds except**

- (a) Ejection click
- (b) Pericardial knock
- (c) Opening snap
- (d) S1

**177. All are mixed frequency murmurs except**

- (a) AS
- (b) PS
- (c) VSD
- (d) MR

**178. Which is the commonest component of pericardial rub?**

- (a) Systolic whole (Halosystolic)
- (b) Mid systolic
- (c) Early diastolic
- (d) Late diastolic

**179. Where the pericardial rub is best heard?**

- (a) Apex
- (b) Pulmonary area
- (c) Left sternal border at 3<sup>rd</sup> and 4<sup>th</sup> ICS
- (d) Over whole precordium

**180. Murmur of coronary artery stenosis has all the following features except**

- (a) Diastolic murmur
- (b) Crescendo decrescendo
- (c) High pitched
- (d) Most easily heard in supine position

**181. MDM at tricuspid valve occurs in all of the following except**

- (a) Rheumatic
- (b) Ebsteins anomaly
- (c) ASD
- (d) VSD

**182. Tricuspid flow diastolic murmur occurs in all the following except**

- (a) ASD
- (b) TAPVD
- (c) PDA
- (d) TR

**183. Nonpan systolic murmur in MR is found in all the following except**

- (a) MVP
- (b) Papillary muscle dysfunction
- (c) Acute mitral regurgitation
- (d) Functional mitral regurgitation

- 184. Silent mitral regurgitation is found in all the following except**
- (a) Acute mitral regurgitation
  - (b) Para prosthetic mitral regurgitation
  - (c) Post BMV
  - (d) Moderate mitral regurgitation
- 185. Systolic thrill in mitral regurgitation is usually found in all the following except**
- (a) Chordal rupture
  - (b) Infective endocarditis
  - (c) Severe chronic mitral regurgitation
  - (d) Mitral regurgitation following episode of ischemia
- 186. All the following mitral regurgitation may produce unmusical murmur except**
- (a) Chordal rupture
  - (b) Vegetation of infective endocarditis
  - (c) MVP
  - (d) Traumatic mitral regurgitation
- 187. All are associated physical finding in TR except**
- (a) Pulsatile liver
  - (b) Prominent 'V' in jugular venous pulse
  - (c) RV S3
  - (d) High volume pulse
- 188. All are causes of diastolic murmur due to increased flow through tricuspid valve except**
- (a) ASD
  - (b) TAPVD
  - (c) Ruptured sinus of valsalva
  - (d) Ebstein's anomaly
- 189. Functional diastolic murmur of mitral regurgitation has all following features except**
- (a) Mid diastolic
  - (b) Preceded by S3
  - (c) Indicates severe mitral regurgitation
  - (d) Presystolic murmur is always present

**190. All are causes of functional TR because of increased flow in cyanotic congenital heart disease except**

- (a) TAPVD
- (b) Single RA
- (c) Hypo plastic left heart syndromes
- (d) Ebstein's anomaly

**191. Austin flint murmur has all the features except**

- (a) Thrill rare
- (b) decrease HS is not loud
- (c) Opening snap is absent
- (d) Pulmonary hypertension is usual

**192. Sustained apical impulse is found in all except**

- (a) Aortic stenosis
- (b) Hypertension
- (c) Mitral regurgitation
- (d) Left ventricular aneurysm

**193. All are diagnostic criteria for RBBB except**

- (a) QRS duration  $\geq 0.12$  sec
- (b) M pattern of QRS in V1 - V3
- (c) Deep slurred S in L1, aVL, V4 - V6
- (d) Secondary ST/T changes V1 - V6

**194. All following are diagnostic criteria for LBBB except**

- (a) QRS  $\geq 0.12$  sec
- (b) M pattern of QRS in L1, aVL, V4 - V6
- (c) No Q in L1, aVL, V4 - V6
- (d) Secondary ST/T changes in V1 - V6

**195. LBBB is rarely found in which of the following?**

- (a) Coronary artery disease
- (b) Hypertensive heart disease
- (c) Cardiomyopathy
- (d) Rheumatic heart disease

**196. Electrocardiography signs of sub endocardial Ischemia are all except**

- (a) Prolonged QT
- (b) Tall T wave
- (c) Both 'a' & 'b'
- (d) T wave inversion

- 197. Systolic murmur at left sternal border with brisk carotid upstroke the possible cause for syncope is**
- (a) Aortic stenosis with aortic regurgitation
  - (b) Aortic stenosis
  - (c) HCM
  - (d) CHB
- 198. Early systolic murmur is found in all except**
- (a) Acute severe mitral regurgitation
  - (b) Chronic severe mitral regurgitation
  - (c) Small VSD
  - (d) Large VSD with PH
- 199. Regular cannon 'a' wave in jugular vein occurs in all the following except**
- (a) Junctional rhythm
  - (b) VT
  - (c) Isorhythmic AV dissociation
  - (d) Complete heart block
- 200. Brockenbrough sign is found in all the following except**
- (a) HOCM
  - (b) Constrictive pericarditis
  - (c) Severe left ventricular dysfunction
  - (d) Mild aortic stenosis
- 201. In a normal person upright posture causes all the following except**
- (a) Tachycardia
  - (b) Bradycardia
  - (c) Decrease in systolic blood pressure < 5 mm Hg
  - (d) Increase in diastolic blood pressure < 5 mm Hg
- 202. Which physical sign is virtually diagnostic of constrictive pericarditis?**
- (a) Systolic retraction of apex
  - (b) Rapid deep 'y' descent
  - (c) Pericardial knock
  - (d) Prompt wide splitting of S2 for one beat only

**203. Maximum blood volume is in**

- (a) Left heart
- (b) Right heart
- (c) Arteries
- (d) Veins

**204. Narrow fixed splitting of S2 is found in**

- (a) Eisenmenger complex
- (b) Pulmonary hypertension
- (c) ASD
- (d) PDA

**205. Wide and fixed splitting of S2 in MR is found in all the following except**

- (a) Severe mitral regurgitation with heart failure
- (b) Associated ASD
- (c) Mitral regurgitation as a part of AV canal defect
- (d) Mitral regurgitation with RBBB

**206. Loud A2 with aortic regurgitation is found in all the following except**

- (a) Syphilis
- (b) Marfan's syndrome
- (c) Aortic dissections
- (d) Rheumatic

**207. All the following usually cause soft or absent OS in MS except**

- (a) Calcification
- (b) Fibrosis
- (c) Aortic regurgitation
- (d) Extremely low flow

**208. Juvenile 'T' wave pattern is due to all except**

- (a) Positional change of subject
- (b) Up ward displacement of diaphragm
- (c) Anxiety
- (d) Exposed to hot environment

**209. Which ECG finding is not found in pericarditis?**

- (a) T wave inversion
- (b) ST depression
- (c) Low voltage of QRS
- (d) Abnormal Q wave

**210. Commonest ECG finding in single ventricle is**

- (a) RVH
- (b) LVH
- (c) BVH
- (d) RAD

**211. Which of the following is associated with reversed splitting of S2?**

- (a) Congenital aortic stenosis
- (b) Subvalvular aortic stenosis
- (c) Supravalvular aortic stenosis
- (d) HOCM

**212. Aortic ejection sound is commonly found in**

- (a) Congenital non calcific aortic stenosis
- (b) Subvalvular aortic stenosis
- (c) Supravalvular aortic stenosis
- (d) HOCM

**213. All following left ventricular outflow tract obstruction are associated with slow rising pulse except**

- (a) Congenital valvular aortic stenosis
- (b) Subvalvular aortic stenosis
- (c) Acquired valvular aortic stenosis
- (d) HOCM

**214. S3 with short diastolic rumble indicates**

- (a) Significant mitral stenosis
- (b) Mild mitral stenosis
- (c) Carrey coomb's murmur
- (d) Left atrial myxoma

**215. Most common ECG finding in ostium secundum ASD is**

- (a) Incomplete RBBB
- (b) Complete RBBB
- (c) RAD
- (d) RVH

**216. All can cause slow 'y' descent except**

- (a) Tricuspid stenosis
- (b) Cardiac tamponade
- (c) Tension pneumothorax
- (d) Constrictive pericarditis

- 217. All following are the cause of shock with out 3<sup>rd</sup> HS except**
- (a) Hypovolemia
  - (b) Septic shock
  - (c) Tension pneumothorax
  - (d) Cardiogenic shock
- 218. All following are the causes of pathological S4 except**
- (a) LVH
  - (b) Coronary artery disease
  - (c) Acute regurgitant lesions
  - (d) Short PR interval
- 219. Ejection click in LVOT obstruction has all following features except**
- (a) Widely audible
  - (b) Indicates valvular obstruction
  - (c) Indicates valvular pliability
  - (d) Indicates severity of aortic stenosis
- 220. Roths spots are found in all the following except**
- (a) Infective endocarditis
  - (b) Severe anemia
  - (c) Collagen vascular diseases
  - (d) Rheumatic fever
- 221. All of the following are causes of chest pain except**
- (a) Esophageal spasm
  - (b) Esophageal reflux
  - (c) Esophageal rupture
  - (d) Hepatitis
- 222. Hypokinetic pulse is found in all the following except**
- (a) Mitral stenosis
  - (b) Constrictive pericarditis
  - (c) LVF
  - (d) Hypervolemia
- 223. Mid systolic murmur occurs in all the following except**

- (a) Aortic stenosis
- (b) Mitral regurgitation due to papillary muscle dysfunction
- (c) PS
- (d) Rheumatic mitral regurgitation

**224. ECG is more reliable for diagnosis of RVH in which of in following**

- (a) Sleep apnoea
- (b) Obstructive airway disease
- (c) Parenchymal lung disease
- (d) All the above

**225. ECG changes may be non diagnostic in following situations except**

- (a) Presence of old infarct marking the new infarct
- (b) Apical infarct
- (c) LBBB preexisting
- (d) Anteroseptal myocardial infarction

**226. Inverted 'P' wave in L1 occurs in all except**

- (a) Dextrocardia
- (b) Left atrial rhythm
- (c) Anterolateral infarction
- (d) Technical dextrocardia

**227. Negative 'U' wave is found in all except**

- (a) Hypertension
- (b) Aortic regurgitation
- (c) Mitral regurgitation
- (d) Dilated cardiomyopathy

**228. 'P' pulmonale is found in all the following except**

- (a) Right atrial enlargement
- (b) Emphysema
- (c) Coronary artery disease
- (d) Acute rheumatic fever

**229. Left atrial enlargement pattern is found in all except**

- (a) Pulmonary embolism
- (b) Mitral valve disease
- (c) Hypertension
- (d) Constrictive pericarditis

**230. Pulsus alternans in heart failure may occur in all the following but particularly occurs in which condition**

- (a) Heart failure in aortic stenosis
- (b) Heart failure in ischemic heart disease
- (c) Heart failure in cardiomyopathy
- (d) Heart failure in mitral regurgitation

**231. All of the following causes localized edema except**

- (a) Cellulitis
- (b) Filariasis
- (c) Deep venous thrombosis
- (d) Heart failure

**232. Duplex scanning is most useful for**

- (a) Aorta
- (b) Iliac
- (c) Common femoral
- (d) Popliteal

**233. Increase jugular venous pressure occurs in all the following except**

- (a) RHF
- (b) TS
- (c) IVC obstruction
- (d) SVC obstruction

**234. Hypoperfusion is suggested by all except**

- (a) Narrow pulse pressure
- (b) Decreased renal function
- (c) Hypernatremia
- (d) Mental obtundation

**235. Which auscultatory sign is not found in significant mitral stenosis?**

- (a) M1 Increase loud S1
- (b) S3
- (c) MDM
- (d) OS

**236. Most sensitive indicator of right ventricular hypertrophy in COPD is**

- (a) R/S ratio > 1 in V1
- (b) Right axis deviation
- (c) P. pulmonale
- (d) Poor 'r' wave progression in precordial leads

- 237. Commonly considered specific ECG finding in acute pulmonary embolism is**
- (a) T wave inversion
  - (b) ST and T abnormality
  - (c) Right axis deviation
  - (d) S1 q3 T3 pattern
- 238. Clubbing is a feature of all the following except**
- (a) Cyanotic congenital heart disease
  - (b) Rheumatic fever
  - (c) Pulmonary arteriovenous fistula
  - (d) Infective endocarditis
- 239. Cardiac chamber is best measured by**
- (a) X-ray
  - (b) Echo
  - (c) Radionuclide ventriculography
  - (d) None of the above
- 240. Myocardial mass is best known by**
- (a) X-ray
  - (b) ECG
  - (c) Echo
  - (d) Radionuclide ventriculography
- 241. Intra cardiac masses are best detected by**
- (a) X-ray
  - (b) Echo
  - (c) Myocardial scintigraphy
  - (d) Radionuclide ventriculography
- 242. Pericardial disease is best detected by**
- (a) Clinical
  - (b) X-ray
  - (c) ECG
  - (d) Echo
- 243. Valvular heart disease is best detected by**
- (a) Clinical
  - (b) X-ray
  - (c) ECG
  - (d) Echo
- 244. Coronary anatomy is best detected by**
- (a) Echo
  - (b) Coronary angiography
  - (c) EBCT
  - (d) All the above

**245. Ventricular systolic function is best known by**

- (a) Clinical
- (b) X-ray
- (c) Echo
- (d) ECG

**246. Ventricular diastolic function is best known by**

- (a) Clinical
- (b) X-ray
- (c) Cardiac catheterization
- (d) Echo

**247. Myocardial tissue characterization is best known by**

- (a) Cardiac catheterization
- (b) Radionuclide ventriculography
- (c) Echo
- (d) Radionuclide ventriculography

**248. Myocardial blood flow is best known by**

- (a) Myocardial angiography
- (b) Clinical
- (c) Echo
- (d) Cardiac catheterization

**249. Myocardial metabolism is best known by**

- (a) Myocardial scintigraphy
- (b) Clinical
- (c) ECG
- (d) All of the above

**250. Post PVC increase the murmur of**

- (a) TR
- (b) VSD
- (c) MVP
- (d) MOCM

**251. Presystolic increase of MDM is not found in all except**

- (a) Mitral regurgitation
- (b) VSD
- (c) Arrhythmia
- (d) Austin flint murmur

**252. Austin flint murmur has all following feature except**

- (a) Frequently found in syphilitic AR
- (b) MDM with presystolic Increase
- (c) M1 may be loud
- (d) No OS

- 253. The term diastolic shock on palpation of precardium is used for**
- (a) Palpable M1
  - (b) Palpable A2
  - (c) Palpable S3
  - (d) Palpable P2
- 254. Murmur of organic TS has all feature except**
- (a) Radiates to cardiac apex
  - (b) Louder during inspiration
  - (c) High frequency
  - (d) Low frequency
- 255. Venous pulsations have all the feature except**
- (a) Laterally derated and superficial
  - (b) Multiple
  - (c) Better palpable than seen
  - (d) Alters with respiration
- 256. Mammary shuffle has all following features except**
- (a) Due to inceased blood flow to breast
  - (b) Continuous with late systolic accentuation
  - (c) Usually no thick
  - (d) Charge with respiration
- 257. Pathological venous hum is found in all the following except**
- (a) Anemia
  - (b) Thyrotoxicosis
  - (c) A-V Frstula
  - (d) Myxedema
- 258. Which physical sign of pulmonary hypertension indicates the pressure in PA is equal to suprasystemic pressure**
- (a) Loud P2
  - (b) Grahm steel murmur
  - (c) Ejection click
  - (d) Pulmonary ejection systolic murmur
- 259. Excimer laser angiography is indicated in all except**
- (a) Differs disease
  - (b) Lang lesion
  - (c) Ostial stenosis
  - (d) Refracting restorer
- 260. Absence of EC in aortic stenosis suggest gradient to be**
- (a) < 30 mmHg
  - (b) 30-35 mmHg
  - (c) 35-50 mmHg
  - (d) > 50 mmHg

**261. Split S2 is best heard in right side of chest except**

- (a) Dextrocardia
- (b) Persistent truncus arteriosus PDA
- (c) TGA
- (d) ASD

**262. Which of the following suggest the pulmonary hypertension is primary?**

- (a) P2 Loud and palpable
- (b) Graham steel murmur
- (c) Pulmonary ejection click
- (d) Vibratory S1

**263. Nonparadoxical reversed splitting is found in**

- (a) Aortic stenosis with heart failure
- (b) Aortic stenosis with aortic regurgitation
- (c) LBBB with AAMI
- (d) LBBB with normal heart

**264. All are causes of late OS except**

- (a) Mild mitral stenosis
- (b) Mitral stenosis with myocardial dysfunction
- (c) Mitral stenosis with aortic regurgitation
- (d) Mitral stenosis with tachycardia

**265. Soft or absent OS in significant mitral stenosis is found in all the following except**

- (a) Calcification
- (b) Associated mitral regurgitation
- (c) Extremely low flow through MV
- (d) Thick chest wall

**266. Peripheral cyanosis seen in all following places except**

- (a) Nail beds
- (b) Earlobes
- (c) Nose
- (d) Inner surface of lips

**267. Aortic ejection click is found in all the following except**

- (a) Aortic stenosis
- (b) Hypertension
- (c) Bicuspid aortic valve without stenosis
- (d) IHSS

- 268. Widest reversed splitting of S2 occurs in**
- (a) Left bundle branch block
  - (b) Aortic stenosis
  - (c) Large PDA
  - (d) Acute ventricular dysfunction
- 269. Reversed splitting of S2 in aortic stenosis indicates gradient to be**
- (a) < 30mmHg
  - (b) 30–40 mmHg
  - (c) 40–50 mmHg
  - (d) Around 60 mmHg
- 270. RV S3 has all following features except**
- (a) Heard over RV area (lower sternal area)
  - (b) Louder in inspiration
  - (c) Usually associated with RV failure
  - (d) Usually associated with prominent 'a' wave
- 271. Bifid notched 'P' wave are seen in all the following except**
- (a) Mitral stenosis
  - (b) Constrictive pericarditis
  - (c) IHSS
  - (d) PS
- 272. Ear lobe crease more frequently in which cardiovascular disease**
- (a) Hypertension
  - (b) Aortic stenosis congenital
  - (c) Coronary artery disease
  - (d) Restrictive CMP
- 273. All haemodynamic finding occur during sudden squatting position except**
- (a) Increase venous return
  - (b) Decrease PVR
  - (c) Increase SVR
  - (d) Increase arterial pressure
- 274. All the following murmur become louder during squatting except**
- (a) Aortic stenosis
  - (b) PS
  - (c) Mitral stenosis
  - (d) TR

**275. Abnormal Q wave in L1 is found in all except**

- (a) Ant lat myocardial infarction
- (b) Superior myocardial infarction
- (c) Dextrocardia
- (d) Levocardia

**276. All following are haemodynamic feature of dicrotic pulse except**

- (a) Decrease cardiac output
- (b) Decrease SV
- (c) Increase PUR
- (d) Normal LV and diastolic pressure

**277. Abnormal pulsation in sterno clavicular area are found in all except**

- (a) Aortic dissection
- (b) Aneurysm of aorta
- (c) Follots tetralogy
- (d) Mild aortic regurgitation

**278. Pedal edema is not reoyted with which Ca-blocker**

- (a) Nifedipine
- (b) Verapamil
- (c) Nimodipine
- (d) Bepridil

**279. Headache may occur with all the Ca-channel blockers except**

- (a) Nifedipine
- (b) Verapamil -Verapamil
- (c) Diltiazem
- (d) Bepridil

**280. Soil sound is**

- (a) Exaggerated T1
- (b) Loud M1
- (c) Normal oral P2
- (d) RVS3

**281. Calcium itucouale is effective in reversing all in following Ca-blocker and used complication except**

- (a) Hypertension
- (b) LV dysfunction
- (c) Suns burly cardia
- (d) A-V nodal block

**282. Abnormal LAD is found in all except**

- (a) LAHB
- (b) Diffuse myocardial disease
- (c) Ostium primum defect
- (d) Left ventricular ectopic rhythm

**283. Negative 'V' waves are found in all except**

- (a) Coronary artery disease
- (b) Hypertension
- (c) Aortic regurgitation
- (d) Mitral stenosis

**284. Tall 'V' waves are found in all except**

- (a) CHB
- (b) Hypokalemia
- (c) Hypocalcaemia
- (d) Hypomagnesaemia

**285. QT prolongation is found in all except**

- (a) Hypercalcaemia
- (b) Acute myocardial infarction
- (c) Subarachnoid hemorrhage
- (d) Quinidine

**286. Prolonged QRS interval is found in all except**

- (a) BBB
- (b) Quinidine
- (c) Procainamide
- (d) RVH

**287. RSQ in V1 with normal QRS is found in all except**

- (a) S1, S2, S3 syndromes
- (b) LAHB
- (c) Post myocardial infarction
- (d) Complete RBBB

**288. Poor 'r' wave progression in V1-V3 is found in all except**

- (a) Anterior septal myocardial infarction
- (b) LBBB
- (c) LAHB
- (d) 'P' RBB

**289. Narrow pulse pressure is found in all except**

- (a) Aortic stenosis
- (b) Cardiac tamponade
- (c) AVNRT
- (d) Mitral stenosis with mild PH

**290. Incomplete RBBB may be produced by all the following except**

- (a) Variable conduction through main trunk
- (b) Delayed activation of crista supra ventricularis
- (c) Conduction delay because of elongated right bundle
- (d) Localized delay in Purkinje-myocardial area

**291. All are heart rate indications of reprecidings except**

- (a) Differentiation of supraventricular from ventricular rhythm
- (b) Evaluation of wide QRS tachycardia is with pre excitation
- (c) Evaluation of syncope with uncertain origin
- (d) 1 Degree AV block

**292. Following murmur may be heard by patients except**

- (a) VSD
- (b) Aortic regurgitation due to retro version of aortic cusp
- (c) Mitral regurgitation due to rupture of CT
- (d) ASD

**293. PND is found in all the following except**

- (a) LVF
- (b) Pulmonary embolism
- (c) Hyperventilation
- (d) Neurogenic pulmonary edema

**294. For cardiac diagnosis maximum information is obtained by**

- (a) Medical history
- (b) Physical examination
- (c) Investigation
- (d) All similar

**295. What strategy should be applied regarding  $\beta$ -blocker for stress ECG**

- (a) Abrupt withdrawal
- (b) Should be continued
- (c) Withdraw in 48 hrs.
- (d) Gradual withdrawal

**296. All are contraindications to exercise testing except**

- (a) Acute myocardial infarction < 48 hours
- (b) Severe symptomatic aortic stenosis
- (c) Symptomatic heart failure
- (d) AF with controlled VR

- 297. All are indications for stopping exercise testing in IHD except**
- (a) A drop of SBP > 10 mmHg from base line
  - (b) Mod – severe angina
  - (c) ST elevation
  - (d) Ventricular ectopics
- 298. Tall R wave in V1 is found in all the following except**
- (a) Post myocardial infarction
  - (b) RVH
  - (c) Constrictive pericarditis
  - (d) Acute pericarditis
- 299. P2 is loud in all following except**
- (a) TPVR
  - (b) Truncus arteriosus
  - (c) C – TGA
  - (d) Ebstein anomaly
- 300. P2 decrease in all the following except**
- (a) TOF
  - (b) Common atrium
  - (c) Tricuspid atresia
  - (d) Ebsteins disease
- 301. CT ratio is normal in all the following except**
- (a) TOF
  - (b) Tricuspidatresia
  - (c) Eissenmenger syndrome
  - (d) TAPVC
- 302. MPA is concave in all the following except**
- (a) C – TGA
  - (b) TOF
  - (c) Tricuspidatresia
  - (d) Eissenmenger syndrome
- 303. Earliest ECG change in hyperkalemia is**
- (a) Tall tented T
  - (b) Decrease P wave
  - (c) PR
  - (d) Widening elevation of QRS
- 304. Pseudo infarction pattern or ECG is found in all except**
- (a) HCM
  - (b) LBBB
  - (c) WPW syndrome
  - (d) Cerebral thrombosis

**305. Most common cause of aortic systolic murmur in elderly is**

- (a) Aortic stenosis
- (b) Aortic sclerosis
- (c) Anemia
- (d) Hypertension

**306. Regular cannon 'a' waves are found in**

- (a) CHB
- (b) SVT
- (c) VT
- (d) AF

**307. Sinequa non of cardiac tamponade is**

- (a) Cardiomegaly
- (b) Pericardial knock
- (c) Pulsus paradoxus
- (d) Absent Y

**308. Most common type of normal continuous murmur**

- (a) Venous hum
- (b) Mammary soufflé
- (c) Cephalic continuous murmur
- (d) All the above

**309. RVH is not the feature of which PH**

- (a) Acute cor pulmonale (Embolic)
- (b) Passive PH
- (c) Primary pulm. HTN
- (d) PH in CHD

**310. Ischemic ST depression is found in all the following except**

- (a) Prinzmetal angina
- (b) Ventricular aneurysm
- (c) Acute myocardial infarction (Transmural)
- (d) Acute myocardial infarction (Subendocardial)

**311. Osborn wave is associated with all except**

- (a) Hypothermia
- (b) ST elevation
- (c) Ventricular arrhythmia
- (d) Hyperthermia

- 312. Pulsus paradoxus may be absent in cardiac tamponade in all the following except**
- (a) LV dysfunction
  - (b) ASD
  - (c) Positive pressure breathing
  - (d) Malignant etiology
- 313. Diagnostic method of choice for pericardial effusion is**
- (a) MRI
  - (b) CT
  - (c) Echo
  - (d) Clinical
- 314. Which auscultatory sign in mitral stenosis is not palpable**
- (a) Opening snap
  - (b) Myocardial infarction
  - (c) P2
  - (d) Murmur
- 315. All the following conditions are associated with left parasternal heave except**
- (a) PS
  - (b) PH
  - (c) Eisenmenger's syndrome
  - (d) Fallot's tetralogy
- 316. Graham steell murmur has all the following features except**
- (a) Early diastolic murmur
  - (b) Low pitched
  - (c) Ejection click
  - (d) In pulmonary hypertension
- 317. Austin flint murmur has all the following feature except**
- (a) S3 is present
  - (b) LV enlargement
  - (c) Murmur decrease by amyl nitrite
  - (d) S1 is loud
- 318. Musical aortic regurgitation murmur is found in all the following except**
- (a) IE
  - (b) Syphilis
  - (c) Rheumatic fever
  - (d) Ankylosing spondylitis

- 319. Hemoptysis may occur in all following cardiac lesion except**
- (a) Pulmonary venous hypertension
  - (b) Pulmonary infarction
  - (c) Eisenmenger's physiology
  - (d) Aortic stenosis uncomplicated
- 320. Jaundice may occur in all following cardiac complications except**
- (a) Hepatic congestion due to heart failure
  - (b) Prosthetic valve
  - (c) Severe aortic stenosis
  - (d) Fallot's tetralogy
- 321. Dynamic exercise causes all the following change except**
- (a)  $O_2$  uptake is increased
  - (b) Cardiac output is increased
  - (c) Peripheral vascular resistance is decreased
  - (d) Blood pressure is increased
- 322. Static exercise cause all the following hemodynamic change except**
- (a)  $O_2$  uptake least increase
  - (b) CO least increase
  - (c) Peripheral resistance is least decrease
  - (d) Blood pressure is decreased
- 323. Superior axis on ECG usually occurs in except**
- (a) Endocardial cushion defects
  - (b) Single ventricle
  - (c) DORV with PS
  - (d) Truncus arteriosus
- 324. Egg on side appearance of heart on X-ray is found in**
- (a) TGA
  - (b) Fallot's
  - (c) Tricuspid atresia
  - (d) TAPVS
- 325. Functional TR usually develops with RVSP (Right Ventricular Systolic Pressure) of**
- (a) 15 mm Hg
  - (b) 30 mm Hg
  - (c) 40 mm Hg
  - (d) > 55 mm Hg
- 326. The TS should be suspected in patients of mitral stenosis by all the following except**

- (a) Prominent 'a' wave with out pulmonary hypertension
- (b) Rapid Y descent
- (c) MDM in TA increase with inspiration
- (d) Ascles tricuspideana

**327. RVH is asceles consistently found at which RVSP**

- (a) 50 mm Hg
- (b) 70 mm Hg
- (c) 90 mm Hg
- (d) > 100 mm Hg

**328. Kereley A lines are indicate mitral stenosis to be**

- (a) Minimal
- (b) Mild
- (c) Moderate
- (d) Severe

**329. Thrill of aortic stenosis is best appreciated in which posture**

- (a) Sitting
- (b) Leaning forward
- (c) In held expiration
- (d) Standing

**330. In which aortic stenosis A2 may be increase?**

- (a) Congenital bicuspid valve pliable
- (b) Rheumatic aortic stenosis pliable
- (c) Degenerative aortic stenosis
- (d) None of the above

**331. Paradoxical splitting of S2 in aortic stenosis signifies**

- (a) A - V gradient -50 mm Hg
- (b) A - V gradient -60 mm Hg
- (c) A - V gradient -70 mm Hg
- (d) A - V gradient -75 mm Hg

**332. All the following may be heard in pregnancy except**

- (a) Systolic murmur
- (b) Mammary soufflé
- (c) Diastolic murmur
- (d) Loud S1

**333. Negative V wave occurs in all except**

- (a) LVH
- (b) LVH with dilation
- (c) Myocardial ischemia/infarction
- (d) Dilated CMP

**334. Coronary angiography may cause**

- (a) Myocardial infarction
- (b) Arrhythmia
- (c) Coronary dissection
- (d) All the above

**335. All following abnormal Q/R ratio act as evidence of Pathological Q except**

- (a)  $> 25\%$  in L1, L2, L3 are F
- (b)  $> 50\%$  in Are
- (c)  $> 15\%$  in V4 - V6
- (d)  $> 10\%$  in V2 - V3

**336. Himalayan 'P' waves are found in**

- (a) Eisenmengers disease
- (b) Fallot's tetralogy
- (c) TGA
- (d) Ebseins anomaly

**337. Most specific ECG finding of RVH is**

- (a) RAD
- (b)  $R/S V1 > 1$
- (c)  $RS V6 < 1$
- (d)  $S1 S2 S3$

**338. Splenomegaly occurs in all the following except**

- (a) Tricuspid valve disease
- (b) Infective endocarditis
- (c) Constrictive pericarditis
- (d) Left ventricular failure

**339. Non cardiogenic pulmonary edema has all following features except**

- (a) High flow state
- (b) S3 per cent
- (c) JVP normal
- (d) Dry crepts

**340. All following arrhythmia have abnormal splitting of S2 except**

- (a) RBBB
- (b) CHB
- (c) VT
- (d)  $1^\circ$  AV block

**341. Globular cardio megaly on X-ray is found in all except**

- (a) Dilated CMP
- (b) Pericardial effusion
- (c) Ebsteins disease
- (d) ASD

**342. Absence of 'P' in ECG occurs in all the following except**

- (a) Chronic progressive cardiac disease in old age
- (b) Chronic neuromuscular disease in young patients
- (c) Hyperkalemia
- (d) Acidosis

**343. Pulsus alternans can occur in normal heart in which situation?**

- (a) During bradycardia
- (b) During tachycardia
- (c) With sinus arrhythmia
- (d) All the above

**344. Pulses alternans particularly occurs in LVF of which etiology?**

- (a) Myocardial infarction
- (b) Cardiomyopathy
- (c) Aortic stenosis
- (d) Hypertension

**345. Cyanosis leads to clubbing after which time period?**

- (a) Immediately
- (b) At one month
- (c) At two months
- (d) After three months

**346. Up right exercise does not cause the following changes in blood pressure except**

- (a) Systolic blood pressure falls
- (b) Diastolic pressure falls
- (c) Both systolic and diastolic blood pressure falls
- (d) All of the above

**347. Inverted is v in ECG suggest all except**

- (a) HT
- (b) Coronary artery disease
- (c) LVH
- (d) On exercise ECG suggest no significant CAD

**348. Most specific ECG evidence of RVH is**

- (a) R/S, V1 > 1
- (b) RAD
- (c) S1, S2, S3
- (d) R/S, V6 < 1

- 349. Prediction of significant PH by ECG is best done by**
- (a) RAD
  - (b) R/S, V1 > 1
  - (c) R in, V1 > 12 mm
  - (d) None of the above
- 350. Prediction of reduced cardiac index is best done by**
- (a) RAD
  - (b) RAD + R/S, V6 < 2
  - (c) R/S, V1 > 1
  - (d) S1 S2 S3
- 351. Which murmur is named after Gibson's**
- (a) Aortic regurgitation
  - (b) Coronary arteris – venous fistula
  - (c) PDA
  - (d) VSD
- 352. All are causes of continuous murmur except**
- (a) Large PDA
  - (b) Long narrow murmur PDA
  - (c) Infant with PDA
  - (d) All of the above
- 353. First description of angina was given by**
- (a) William Henerder
  - (b) Edward Jenner
  - (c) Johan Hunter
  - (d) Samuel Block
- 354. Which variety of shock is associated with pathologic S3?**
- (a) Hypovolemic shock
  - (b) Septic shock
  - (c) Cardiac tamponade
  - (d) Cardiogenic shock
- 355. Which heart failure cause is associated with pathologic S3?**
- (a) Cardiac tamponade
  - (b) Acute myocardial infarction with LVF
  - (c) Mitral stenosis with heart failure
  - (d) Aortic stenosis with heart failure

- 356. S4 may be heard in mild LVOT obstruction in all the following situations except**
- (a) HOCM
  - (b) Aortic stenosis mild
  - (c) Mild aortic stenosis with CAD
  - (d) Mild aortic stenosis with HT
- 357. Dilated IVC and hepatic veins indicates the estimated RAP to be**
- (a) 5–10 mm Hg
  - (b) 10–15 mmHg
  - (c) 15–20 mmHg
  - (d) > 20 mmHg
- 358. All are the echo findings in old myocardial infarction except**
- (a) Infarct area decreases
  - (b) Increased echogenicity of infarct area
  - (c) Decrease motion
  - (d) Systolic thickening preserved
- 359. All are indications of contrast echocardiography except**
- (a) Detection of ASD
  - (b) Detection of VSD
  - (c) Detection of PFO
  - (d) Myocardial perfusion
- 360. All are false positive causes of ST depression during EST except**
- (a) Digitalis
  - (b) Hypokalemia
  - (c) Recent food intake
  - (d) Polycythemia
- 361. All the following are cardiac causes of false positive EST except**
- (a) Aortic stenosis
  - (b) MVP
  - (c) WPW
  - (d) Rheumatic mitral valve disease
- 362. Myocardial function is best evaluated by**
- (a) History
  - (b) Physical examination
  - (c) X-ray chest
  - (d) ECG

**363. Myocardial ischemia is best evaluated by**

- (a) History
- (b) Physical examination
- (c) X-ray
- (d) ECG

**364. Functional capacity best evaluated by**

- (a) Physical examination
- (b) History
- (c) Examination ECG
- (d) Chest X-ray

**365. In which location of acute myocardial infarction the ventricular septal defect occurs?**

- (a) Antero septal      (b) Apical
- (c) Post intact      (d) Anterolateral

**366. The late systolic murmur in MVP is**

- (a) Crescendo – Decrescendo
- (b) Decrescendo
- (c) Crescendo      (d) Same necessity

**367. In which valve lesion the systolic murmur may radiate to top of head?**

- (a) MVP chordal rupture mitral regurgitation
- (b) Aortic stenosis
- (c) PS      (d) TR

**368. Changing intensity of apical systolic murmur occurs in all the following except**

- (a) Rheumatic fever
- (b) Bacterial endocarditis
- (c) Papillary muscle dysfunction
- (d) HOCM

**369. Collapsing pulse in cyanotic congenital heart disease is found in all the following except**

- (a) Fallots with bronchopulmonary collaterals
- (b) Truncus arteriosus
- (c) Pulmonary atresia
- (d) Ebstein anomaly

**370. All the following are causes of chest pain with collapsing pulse except**

- (a) Aortic regurgitation severe
- (b) RSOV

- (c) Aortic dissection with aortic regurgitation
- (d) PDA

**371. Chest pain with bisferiens pulse is found in all except**

- (a) HOCM
- (b) Aortic regurgitation
- (c) Aortic stenosis + Aortic regurgitation
- (d) RSOV

**372. Verrucae exhibit all the following feature except**

- (a) Most often observed on dorsal line of mitral and aortic valve
- (b) Location on atrial surface AV of valves
- (c) Location on ventricular surface of simular valves
- (d) Found in infective endocarditis

**373. In all the following situations S1 is decrease in aortic regurgitation except**

- (a) Severe aortic regurgitation
- (b) Increase PR interval
- (c) Decrease PR interval
- (d) Sinus brachycardia

**374. Which is characteristic change on fundus examination?**

- (a) Micro infarction
- (b) Micro aneurysm
- (c) Arterio venous anastomosis around disc
- (d) Hemorrhage

**375. Early RVH in myocardial infarction is suggested by**

- (a) Deep S in L1
- (b) RAD
- (c) S in V6
- (d) Non descriptive QRS in V1 with marked diminution in amplitude of S wave

**376. Dock's murmur has all following features except**

- (a) Early diastolic murmur
- (b) Significant stenosis of proximal LAD
- (c) Best heard 2<sup>nd</sup> 3<sup>rd</sup> left intercostals space lateral to sternal border
- (d) Mid diastolic murmur

- 377. Least amount of fluid detectable by echocardiography is**
- (a) 5 ml                      (b) 10 ml  
(c) 15 ml                    (d) 20 ml
- 378. Presence of both anterior and posterior pericardial effusion in supine position indicates what amount of fluid**
- (a) 100 ml                  (b) 200 ml  
(c) 300 ml                  (d) > 300 ml
- 379. Paradoxical pulse occurs in all the following except**
- (a) Cardiac tamponade  
(b) Acute cor pulmonale  
(c) Hypovolemic shock  
(d) Lax pericardial effusion
- 380. Most characteristic X-ray finding in constrictive pericarditis is**
- (a) Decrease or absent cardiac pulsations on fluoroscopy  
(b) Distension of superior vena cava and calcification of azygous vein  
(c) Pericardial calcification  
(d) Cardiac shadow often not enlarged
- 381. All the following signs are unusual in cardiac tamponade except**
- (a) Pulsus paradoxus  
(b) Kussmaul's sign  
(c) Liver enlargement  
(d) Ascites
- 382. Electrical alternans most commonly develop in which etiology of cardiac tamponade?**
- (a) Tuberculosis            (b) Uremia  
(c) Viral                      (d) Malignant
- 383. Single diagnostic feature of pericardial pain is**
- (a) Substernal location  
(b) Stabbing  
(c) Variation with position  
(d) Radiates to neck
- 384. Pericardial rub has all following features except**

- (a) Scratchy
- (b) Leather like series of sounds
- (c) Low pitched
- (d) Has 3 components

**385. Following low frequency phenomenon are best left by heel of palm except**

- (a) Mid diastolic murmur of mitral stenosis
- (b) Right ventricular lift
- (c) LV Lift
- (d) 3<sup>rd</sup> and 4<sup>th</sup> heart sound

**386. Most common cause of liver enlargement in cardiac disease is**

- (a) Increase RAP      (b) Increase LAP
- (c) Increase LVSP    (d) Increase RVSP

**387. Best tool for imaging pericardium is**

- (a) X-ray chest      (b) Echocardiography
- (c) CT                (d) MRI

**388. S1 Q3 T3 pattern is found in which pulmonary hypertension?**

- (a) Primary pulmonary hypertension
- (b) Passive pulmonary hypertension
- (c) Reactive pulmonary hypertension
- (d) Pulmonary embolism

**389. In which of following causes of pulmonary hypertension LVH is found in ECG?**

- (a) Mitral stenosis    (b) Aortic disease
- (c) COPD              (d) PPH

**390. ECG shows LAD + LVH in all the following valvular heart disease except**

- (a) Mitral stenosis
- (b) Mitral regurgitation
- (c) Aortic stenosis
- (d) Aortic regurgitation

**391. Extreme pulmonary hypertension with RVH without heart failure occurs in which of the following**

- (a) Lung disease
- (b) Primary pulmonary hypertension
- (c) Persons living at high altitude (> 10,000 ft)
- (d) Mitral stenosis

- 392. Foremost symptom of myocardial ischemia is**
- (a) Chest pain
  - (b) Dyspnea
  - (c) Syncope
  - (d) Palpitation
- 393. Most common precipitating factor for angina is**
- (a) Exertion
  - (b) Emotional distress
  - (c) Cold weather
  - (d) Eating
- 394. Hypokinetic pulse is found in all except**
- (a) Hypovolemia
  - (b) Left ventricular failure
  - (c) Mitral stenosis
  - (d) Mitral regurgitation
- 395. Dicrotic pulse is found in**
- (a) Mitral stenosis
  - (b) Aortic stenosis
  - (c) Dilated cardiomyopathy
  - (d) Hypertrophic cardiomyopathy
- 396. Which neck vein is best for accurate measurement of central venous pressure?**
- (a) Left external jugular vein
  - (b) Right internal jugular vein
  - (c) Left internal jugular vein
  - (d) Right external jugular vein
- 397. Most common cause of Kussmaul's sign is**
- (a) Constrictive pericarditis
  - (b) Severe right sided failure
  - (c) RV infarction
  - (d) All of the above
- 398. In acute pericarditis ST segment is elevated in**
- (a) V1 – V6
  - (b) L2, L3, aVF
  - (c) All Leads
  - (d) All Leads except AVR & V1
- 399. Most common alteration of PR segment in acute pericarditis is**
- (a) Elevated
  - (b) Isoelectric
  - (c) Depressed
  - (d) Any of the above

- 400. Which changes don't occur in ECG in acute pericarditis?**
- (a) PR elevation
  - (b) Reciprocal changes of ST elevation
  - (c) Abnormal Q wave
  - (d) All of the above
- 401. Pure ST segment alternans is a sign of**
- (a) Sub endocardial ischemia
  - (b) Severe transmural myocardial ischemia
  - (c) Pericardial effusion
  - (d) Myocarditis
- 402. U-wave alternans is found in**
- (a) Idiopathic QT prolongation
  - (b) Ischemic heart disease
  - (c) Drug induced
  - (d) Myocarditis
- 403. QRS alternans is usually found in**
- (a) Rapid SVT with concealed bypass tract
  - (b) Myocarditis
  - (c) Cardiac tamponade
  - (d) Drug induced
- 404. On ECG presence of RA enlargement left axis deviation and LVH indicates which disorder?**
- (a) Single ventricle
  - (b) Truncus arteriosus
  - (c) Fallot's tetralogy
  - (d) Tricuspid atresia
- 405. Which up thrust is found in atrial fibrillation in neck veins?**
- (a) a-wave
  - (b) c-wave
  - (c) v-wave
  - (d) cv-wave
- 406. Pulmonary venous hypertension is best known by**
- (a) Clinical
  - (b) ECG
  - (c) Radiology
  - (d) Echocardiography

- 407. Broad QRS tachycardia associated with coronary artery disease is likely to be VT in which % of cases**
- (a) 50 % (b) 70 %  
(c) 95 % (d) 100 %
- 408. All are ECG criteria of AV dissociation except**
- (a) Independent 'P' wave at slower rate than VR  
(b) Captured beats  
(c) Fusion beats (d) LBBB
- 409. Kussmaul's sign is found in all except**
- (a) Constrictive pericarditis  
(b) RV infarction  
(c) Pulmonary embolism  
(d) Cardiac tamponade
- 410. Rapid 'x' descent is found in**
- (a) Atrial fibrillation  
(b) Atrial paralysis  
(c) Cardiac tamponade  
(d) AVNRT
- 411. Marked delay in T1 occurs in**
- (a) TS (b) TR  
(c) Ebstein's disease (d) None of the above
- 412. Causes of palpable presystolic impulse at apex are all the following except.**
- (a) Aortic stenosis (b) IHSS  
(c) SH  
(d) Restrictive cardiomyopathy
- 413. All the following are causes of BP differences in arms and legs except**
- (a) Dissection of aorta  
(b) Coarctation of aorta  
(c) Supravalvular aortic stenosis  
(d) Aneurysm of ascending aorta
- 414. Pulmonary artery pulsation are found in pulmonary area in all the following except**
- (a) ASD (b) PS  
(c) PH (d) VSD
- 415. Commonest symptom of pulmonary hypertension is**

- (a) Dyspnea
- (b) Fatigue
- (c) Chest pain
- (d) Syncope

**416. Which is the commonest murmur found in pulmonary hypertension?**

- (a) TR
- (b) PR
- (c) Pulmonary systolic murmur
- (d) All the above with same frequency

**417. Commonest X-ray finding in thoracic aortic dissection is**

- (a) Abnormality in the region of aortic knob
- (b) Mediastinal widening
- (c) Indistinct aortic margins
- (d) No definite finding

**418. Oslers nodes have all the following features except**

- (a) Small
- (b) Vascular
- (c) Due to infected micro emboli
- (d) Purplish

**419. Fundus examination is useful in all except**

- (a) Valvular heart disease with atrial fibrillation
- (b) Hypertension
- (c) Infective endocarditis
- (d) Congenital acyanotic heart disease

**420. Ear lobe crease is often found in**

- (a) Hypertension
- (b) Coronary artery disease
- (c) Diabetes mellitus
- (d) Hyperlipoproteinemia

**421. Tallest precordial T is found in which leads?**

- (a) V1 - V2
- (b) V3 - V4
- (c) V5 - V6
- (d) V3 - V6

**422. Massive hemoptysis occurs in all the following except**

- (a) Acute pulmonary edema
- (b) Rupture of pulmonary artery aneurysm
- (c) Thoracic aortic aneurysm
- (d) Arteriovenous malformations

**423. Following are the causes of fatigue in cardiac disease except**

- (a) Severe pulmonary hypertension with heart failure
- (b)  $\alpha$ -Methyldopa
- (c)  $\beta$ -blockers
- (d) ACE inhibitors

**424. All the following features of bisferiens pulse are correct except**

- (a) Best felt in femoral artery
- (b) Found in HOCM
- (c) Found in aortic stenosis with aortic regurgitation
- (d) Found in pure aortic regurgitation

**425. Pulses alternans is characterized by all the following except**

- (a) Best felt in carotids
- (b) Found in LV dysfunction
- (c) Found in cardiac tamponade
- (d) The systolic blood pressure difference in two beats is  $\geq 20$  mm Hg

**426. Examination of apex beat provide information about**

- (a) Cardiomegaly
- (b) LV size
- (c) LV function
- (d) All of the above

**427. In what percentage apex beat is palpable in normal persons?**

- (a) 70 %
- (b) 80 %
- (c) 50 %
- (d) 100 %

**428. Peri bronchial cuffing is best visualized at which location?**

- (a) Superior portion of pulmonary hilum
- (b) Apex of lung
- (c) Base of lung
- (d) Peripheral part of lung

**429. All are features of ischemic T wave except**

- (a) Deep
- (b) Symmetrical
- (c) Arrow head
- (d) Shallow

**430. Earliest radiological sign in mitral stenosis is**

- (a) Left atrium enlargement
- (b) Right atrium enlargement
- (c) RV enlargement
- (d) Kerley's B lines

**431. All the following valve lesions have left atrium and left ventricular enlargement except**

- (a) Mitral stenosis
- (b) Mitral regurgitation
- (c) Aortic stenosis
- (d) Aortic regurgitation

**432. Hemoptysis is found in which valve lesion?**

- (a) Mitral stenosis
- (b) Mitral regurgitation
- (c) Aortic stenosis
- (d) Aortic regurgitation

**433. Acute mitral regurgitation has all the following except**

- (a) Normal apical impulse
- (b) S3
- (c) Pansystolic murmur
- (d) Mod - Severe heart failure

**434. Most common cause of cardiac enlargement**

- (a) CHF
- (b) Attelete heart
- (c) Pericardial effusion
- (d) Absence of pericardium

**435. All are causes of narrow pulse pressure except**

- (a) Heart failure
- (b) Shock
- (c) Cardiac tamponade
- (d) Use of vasodilators

**436. Systolic thrill in AV disease is found in all following except**

- (a) Severe aortic stenosis
- (b) Severe aortic regurgitation with mild aortic stenosis
- (c) Moderate aortic regurgitation with moderate aortic stenosis
- (d) Mild aortic stenosis

- 437. Long fields on X-ray in cardiac tamponade are frequently**
- (a) Normal
  - (b) Hyperaemic
  - (c) Oligenic
  - (d) All the above
- 438. Which is the most sensitive method for detection atrial thrombosis?**
- (a) Trans thoracic echo
  - (b) Trans esophageal echo
  - (c) Ultra fast CT
  - (d) All the above
- 439. Inadequate rise of blood pressure during exercise < 120mm Hg systolic indicate**
- (a) Double vessel disease
  - (b) Presence of LBBB
  - (c) LV dysfunction
  - (d) Autonomic dysfunction
- 440. ST segment elevation during exercise testing indicates all the following except**
- (a) Elevation occurring in levels with Q indicates severe Prox CAD
  - (b) Indicates spams
  - (c) With prior Q indicates deepberetic area
  - (d) Indicates low ejection fraction
- 441. Which is commonest finding in primary pulmonary hypertension?**
- (a) Dysphasia
  - (b) Fatigue
  - (c) Loud P2
  - (d) EDM of PR
- 442. Which is commonest finding in thrombo-embolic PH?**
- (a) Dysper
  - (b) Loud P2
  - (c) EDM of PR
  - (d) RVH
- 443. Kerley's A line are not due to which of the following?**
- (a) Fluid in inter lobular septal
  - (b) Perivascular cutting
  - (c) Peribronctrial cutting
  - (d) All of the above
- 444. S3 Gallop has all following feature except**
- (a) Heard best at apex
  - (b) Heard best during expiration

- (c) Positions of patients should be lasts interval
  - (d) After persist after heart best of heart failure
- 445. Most common cause of cannon a waves in jugular is**
- (a) Complete heart block
  - (b) Junctional tachycardia
  - (c) Ventricular fibrillation
  - (d) Pacemaker syndrome
- 446. Most common cause of cyclic ischemic chest pain at rest is**
- (a) Stable angina      (b) Unstable angina
  - (c) Variant angina      (d) All of the above
- 447. Small cardiac chambers on echocardiography is found in**
- (a) Acromegaly      (b) Myxoedema
  - (c) Addison's disease      (d) Diabetes mellitus
- 448. Which is most uncommon cause of S4?**
- (a) Aortic stenosis      (b) Athletes heart
  - (c) Hypertension
  - (d) Hypertrophic cardiomyopathy
- 449. Most common cause of cyanosis is**
- (a) Cor pulmonale      (b) Tetralogy of fallot
  - (c) Tricuspid atresia      (d) Ebstein's anomaly
- 450. All are common causes of ejection click except**
- (a) Aortic stenosis      (b) Bicuspid valve
  - (c) Mitral valve prolapse
  - (d) Pulmonary stenosis
- 451. Most common site for pericardial rub in acute pericarditis is**
- (a) Aortic area      (b) Mitral area
  - (c) Pulmonary area      (d) Left sternal border
- 452. Sustained apex beat is found in all the following except**
- (a) Mitral regurgitation with left ventricular failure
  - (b) Aortic stenosis
  - (c) HCM
  - (d) VSD

- 453. Most sensitive ECG marker of tricyclic antidepressant cardiac toxicity is**
- (a) QT prolongation
  - (b) QRS prolongation
  - (c) Terminal R wave in AVR
  - (d) Ventricular arrhythmia
- 454. RA enlargement without RVH is found in**
- (a) Mitral stenosis
  - (b) ASD
  - (c) TS
  - (d) All of the above
- 455. RA enlargement with LVH and oligemic lung fields is found in**
- (a) Ebstein's anomaly
  - (b) Fallots tetralogy
  - (c) TGA
  - (d) Tricuspid atresia
- 456. First indication of cor pulmonale usually is**
- (a) Increase JVP
  - (b) Liver enlargement
  - (c) Edema
  - (d) All of the above
- 457. All are clinical signs of hypercapnia except**
- (a) High volume pulse
  - (b) Flapping tremors
  - (c) Papilloedema
  - (d) None of the above
- 458. Most sensitive indicator of RVH in Cor pulmonale is**
- (a) RAD
  - (b) P pulmonale
  - (c) R/S in V1 > 1
  - (d) R/S ratio V6 < 1
- 459. S3 /knock is found in all except**
- (a) Constrictive pericarditis
  - (b) Endomyocardial fibrosis
  - (c) Amyloid heart disease
  - (d) Primary restrictive cardiomyopathy
- 460. Step ladder 'P' waves are found in**
- (a) Restrictive cardiomyopathy
  - (b) Constrictive pericarditis
  - (c) Dilated cardiomyopathy
  - (d) None of the above
- 461. Gold standard test for diagnosis of pulmonary hypertension is**

- (a) Echocardiography
- (b) Lung scan
- (c) Lung biopsy
- (d) Right heart catheterization

**462. Lung scan is of most value in which etiological type of pulmonary hypertension**

- (a) Mitral stenosis
- (b) Left ventricular failure
- (c) Thrombo embolic
- (d) Left-Right shunt

**463. Which is best technique to know the vulnerability of plaque?**

- (a) Angioscopy
- (b) Intravascular ultrasound
- (c) Optical coherence topography
- (d) None of the above

**464. All the following indicate moderately severe LA hypertension except**

- (a) Orthopnea
- (b) Short S2 - OS
- (c) Long mid diastolic murmur
- (d) RVF

**465. Most specific criteria for LVH is**

- (a) Sokolow lyon criteria
- (b) Romhilt - estes score
- (c) Cornell criterion
- (d) Talbot criterion

**466. Apical mid diastolic murmur of mitral stenosis is masked in which of the following?**

- (a) Calcification
- (b) Atrial fibrillation
- (c) Right ventricle enlargement
- (d) Mitral regurgitation

**467. Dicrotic pulse is characterized by all following haemodynamic features except**

- (a) Peripheral resistance is low
- (b) Blood pressure is low
- (c) Cardiac out put probably low
- (d) Arterial tree increase tone

- 468. Unilateral clubbing is found in**
- (a) Aneurysm of ascending aorta
  - (b) Aneurysm of arch of aorta
  - (c) Reversed PDA
  - (d) Aneurysm of subclavian artery
- 469. All the following cardiac diseases are not associated with prominent 'a' wave except**
- (a) Tricuspid regurgitation
  - (b) Constrictive pericarditis
  - (c) Fallot's tetralogy
  - (d) Pulmonary stenosis
- 470. P2 in pulmonary stenosis has all the features except**
- (a) Delayed
  - (b) Diminished
  - (c) High Pitch
  - (d) Low Pitch
- 471. Murmur of TR has all the following features except**
- (a) Usually holosystolic
  - (b) Increases with inspiration
  - (c) TR & RHF the murmur does not increase with inspiration
  - (d) Usually associated with thrill
- 472. TS murmur has all the following features except**
- (a) Low pitched
  - (b) Increases with inspiration
  - (c) Loudest at lower left sternal border
  - (d) High pitched
- 473. Pulsatile liver is found in which of the following lesion**
- (a) Mitral regurgitation
  - (b) VSD
  - (c) TR
  - (d) Aortic stenosis
- 474. Murmur with thrill is usually present in which of the following lesion?**
- (a) Mitral regurgitation
  - (b) TR
  - (c) VSD
  - (d) ASD
- 475. S2 in acute mitral regurgitation is**
- (a) Normal split
  - (b) Wide split
  - (c) Single S2
  - (d) All the above

- 476. All the following events are best felt in left lateral position except**
- (a) S3
  - (b) S4
  - (c) Size of apex beat
  - (d) S2
- 477. Type B lesion on coronary angiography has all the following features except**
- (a) Tubular 10–20 mm length
  - (b) Concentric
  - (c) Moderate angulation 45 – 90° angle
  - (d) Moderate to heavy calcification
- 478. Type c lesion an coronary angiography has all the following features except**
- (a) Diffuse 20 mm in length
  - (b) Extreme angulation > 90°
  - (c) Total occlusion < 3 months
  - (d) Excessive torturosity of proximal segment
- 479. Type A lesion on coronary angiography has all the following features except**
- (a) Discrete < 10 mm
  - (b) Eccentric
  - (c) Non angulated < 45° angle
  - (d) Smooth contour
- 480. Single best physical sign for severity of aortic valve stenosis is**
- (a) Pulsus parvus et tardus
  - (b) Decrease A2
  - (c) S4
  - (d) Ejection click
- 481. Which of the following is correct for apex beat of aortic stenosis?**
- (a) Forceful only
  - (b) Sustained only
  - (c) Shifted from normal position
  - (d) Forceful and sustained
- 482. Palpable S1 in mitral stenosis indicates**
- (a) AML pliable
  - (b) PML pliable
  - (c) Both are pliable
  - (d) None of the above

- 483. All the following method increase intensity of korotkoff sound in case they are less loud except**
- (a) Rapidly inflating bladder
  - (b) By raising the arm for few seconds before taking blood pressure
  - (c) Hand closing and opening ten times before taking blood pressure
  - (d) Taking the blood pressure in standing position
- 484. Murmur of papillary dysfunction is decreased in the following situations except**
- (a) Post PVC
  - (b) Valsalva
  - (c) Standing
  - (d) Squatting
- 485. Murmur of aortic stenosis is decreased in all the following situations except**
- (a) Post PVC
  - (b) Valsalva
  - (c) Handgrip
  - (d) Standing
- 486. MVP murmur is decreased in all the following except**
- (a) Post PVC
  - (b) Handgrip
  - (c) Squatting
  - (d) Standing
- 487. Calcification of proximal pulmonary artery occurs in**
- (a) Severe long standing pulmonary hypertension
  - (b) PS
  - (c) PR
  - (d) All the above
- 488. Abnormal convexity of right border of heart on X-ray is found in all except**
- (a) RA Enlargement
  - (b) LA Enlargement
  - (c) LV Enlargement
  - (d) RV Enlargement
- 489. Aortic valve calcification occurs most commonly in**
- (a) Bicuspid valve
  - (b) Rheumatic endocarditis
  - (c) Senile degenerating
  - (d) Ankylosing spondylitis

- 490. Reduced HR variability in myocardial infarction is indicative of all except**
- (a) Severe coronary artery disease
  - (b) Coronary artery disease with LV dysfunction
  - (c) Propensity to arrhythmia
  - (d) Strong predictor of mortality
- 491. All following CNS neurotransmitters are involved in HR variability except**
- (a) Acetyl Choline
  - (b) Norepinephrine
  - (c) Serotonin
  - (d) Dobutamine
- 492. LA Hypertrophy is better known by**
- (a) Abnormal 'P' terminal force in V1
  - (b) Abnormal P duration L2
  - (c) Both of the above
  - (d) All of the above
- 493. LA Dilatation is best known by**
- (a) Abnormal 'P' terminal force in V1
  - (b) Abnormal duration
  - (c) Both of the above
  - (d) None of these
- 494. In collapsing pulse related to**
- (a) Back flow in to the aortic valve
  - (b) Reflex vasodilation
  - (c) Both of the above
  - (d) None of the above
- 495. All following are physiological causes of sinus bradycardia except**
- (a) Athletes
  - (b) During sleep
  - (c) Neonates
  - (d) Pregnancy
- 496. All following drugs cause sinus bradycardia except**
- (a) Lithium
  - (b) Clonidine
  - (c) Amiodarone
  - (d) ACE inhibitors
- 497. Jugular venous pulse in cardiac tamponade results in all the following except**
- (a) Pressure is increased
  - (b) Y is absent
  - (c) X is prominent
  - (d) a wave larger than V-wave

**498. Reduced pulse pressure is found in all except**

- (a) Aortic stenosis
- (b) Heart failure
- (c) Cardiac tamponade
- (d) Renal failure

**499. Which of the following sign is always associated with severe aortic stenosis?**

- (a) S4
- (b) Pulsus parvus et tardus
- (c) Late peaking murmur
- (d) Reverse splitting of S2 in absence of LBBB

**500. Sustained PA pulsation in PA are felt in**

- (a) Post stenotic dilation of PA
- (b) PH
- (c) Both of the above
- (d) None of the above

**501. Pulsation s in supraclavicular area are seen in all the following except**

- (a) Aortic stenosis
- (b) Aortic regurgitation
- (c) Aneurysm of aorta
- (d) Dissection of aorta

**502. Which murmur is heard in extensive venous embolism?**

- (a) Systolic
- (b) Diastolic
- (c) To and fro
- (d) Churning continuous

**503. Upright T wave in V1 after 1st week of life suggests which diagnosis**

- (a) Tricuspid atresia
- (b) Pulmonary atresia with hypoplastic RV
- (c) Ebstein's disease
- (d) Fallot's tetralogy

**504. Pulses alternans is amplified by all the following except**

- (a) Aortic regurgitation
- (b) Hypotension
- (c) Nitroglycerine administration
- (d) Lying down position

**505. Most common causes of cannon 'a' waves in neck veins**

- (a) Complete heartblock
- (b) Non-paroxysmal junctional tachycardia
- (c) Pacemaker syndrome
- (d) Ventricular tachycardia

**506. Most common cause of continuous murmur is**

- (a) Patent ductus arteriosus
- (b) Ventricular septal defect with aortic regurgitation
- (c) Aortopulmonary window
- (d) Fallots tetralogy

**507. Most common cause of central cyanosis**

- (a) Corpulmonale
- (b) Eisenmengers syndrome
- (c) Fallots tetralogy
- (d) Tricuspid atresia

**508. Most common cause of pedal edema**

- (a) Heart failure
- (b) Hypothyroidism
- (c) Constrictive pericarditis
- (d) Lymph edema

**509. Most common cause of systolic ejection sound**

- (a) Bicuspid aortic valve
- (b) Pulmonary hypertension
- (c) Pulmonary stenosis
- (d) None of the above

**510. Most common cause of elevated jugular venous pressure is**

- (a) Heart Failure (Right)
- (b) Restrictive cardiomyopathy
- (c) Right ventricular infarction
- (d) Superior vena caval syndrome

**511. Most common cause of cardiogenic cerebral dysfunction is**

- (a) Cardiogenic shock
- (b) Digitalis toxicity
- (c) Infective endocarditis
- (d) Mitral stenosis

**512. Reversed opening snap is found in**

- (a) Mitral stenosis
- (b) Tricuspid stenosis
- (c) Pulmonary stenosis
- (d) Bicuspid valve

**513. Reversed opening snap is**

- (a) Aortic ejection click
- (b) Pulmonary ejection click
- (c) Mitral opening snap
- (d) Non ejection click

**514. Aneurysm of sinus of valsalva commonly involves which cusp?**

- (a) Right aortic cusp
- (b) Posterior cusp
- (c) Left cusp
- (d) All the above

**515. Cannon 'a' wave most commonly found**

- (a) Atrioventricular nodalhis block
- (b) Nonparoxysmal junctional tachycardia
- (c) Pacemaker syndrome
- (d) Ventricular tachycardia

**516. Systolic murmur in axilla represents which lesion**

- (a) PDA
- (b) Pulmonary valve stenosis
- (c) Peripheral pulmonary stenosis
- (d) Venous hum

**517. Which sound is absent in atrial fibrillation?**

- (a) S1
- (b) S2
- (c) S3
- (d) S4

**518. Anacrotic notch in aortic stenosis is best felt in**

- (a) Brachial artery
- (b) Carotid artery
- (c) Radial artery
- (d) Femoral artery

**519. Who auscultated the heart first?**

- (a) Lennec
- (b) Nectar
- (c) Austinflint
- (d) Nicolas corvisart

**520. How the auscultation of heart was carried first?**

- (a) Ear applied to chest
- (b) Cylinder of paper on the chest

- (c) Roll of pasted card board
- (d) Wooden cylinder

**521. Who invented spectral phonocardiogram?**

- (a) Alfredo Luisade
- (b) Aubrey Leathen
- (c) Victor Mekusick
- (d) MB Rappaport

**522. Most anterosuperior part of heart is**

- (a) Aortic valve
- (b) Pulmonary valve
- (c) Left atrium
- (d) Right atrium

**523. Pulses paradoxus is best detected in**

- (a) Carotid artery
- (b) Femoral artery
- (c) Brachial artery
- (d) Radial artery

**524. Which finding is diagnostic of constrictive pericarditis?**

- (a) Raised JVP
- (b) Hepatomegaly
- (c) Ascites
- (d) Wide splitting of S2 for one beat only

**525. The murmur of pulmonary arteriovenous fistula is heard at all following sites except**

- (a) Right lower lobe
- (b) Left lower lobe
- (c) Right middle lobe
- (d) Left middle lobe

**526. All following are features of pulmonary arteriovenous fistula except**

- (a) Cyanosis
- (b) Clubbing
- (c) Murmur
- (d) Abnormal ECG

**527. Mitral opening snap is best heard at**

- (a) Between left sternal border and apex
- (b) Pulmonary area
- (c) Mitral area
- (d) Aortic area

**528. Infants have typically which axis?**

- (a) Right axis deviation
- (b) Left axis deviation
- (c) Extreme right axis deviation
- (d) Normal axis

**529. L1 shows upward QRS and lead aVF downward QRS which axis is that**

- (a) Right axis deviation
- (b) Left axis deviation
- (c) Extreme right axis deviation
- (d) Normal axis

- 530. All are the non cardiac causes severe left axis deviation**
- (a) Ascites
  - (b) Pregnancy
  - (c) Aging
  - (d) Infants
- 531. If L1 and aVF show downward QRS which axis is that?**
- (a) Left axis deviation
  - (b) Right axis deviation
  - (c) Normal axis
  - (d) Extreme right axis deviation
- 532. If lead I has downward QRS complex and lead aVF upward QRS complex which axis deviation is it?**
- (a) Left axis deviation
  - (b) Right axis deviation
  - (c) Normal axis
  - (d) Extreme right axis deviation
- 533. If L1 and aVF show up right QRS which electrical axis is the?**
- (a) Right axis deviation
  - (b) Normal axis
  - (c) Left axis deviation
  - (d) Extreme right axis deviation
- 534. Which electrolyte disorder produces RBBB?**
- (a) Hypokalemia
  - (b) Hyperkalemia
  - (c) Hypocalcaemia
  - (d) Hyponatremia
- 535. Which is the best lead to monitor VT?**
- (a) V1
  - (b) L11
  - (c) L111
  - (d) V4
- 536. On predischarge exercise ECG in acute myocardial infarction which parameter has highest positive predictive value**
- (a) ST Depression
  - (b) Impaired systolic blood pressure
  - (c) Exercise duration
  - (d) Angina
- 537. After 6 hours of chest pain which of the following marker is most specific in acute myocardial infarction?**

- (a) Total CK.MB activity
- (b) Total CK.MB mass
- (c) Troponin-I
- (d) Troponin-T

**538. All following can cause situational syncope except**

- (a) Swallowing
- (b) Defecation
- (c) Micturition
- (d) Sneezing

**539. All are causes of paradoxical splitting of size except**

- (a) Aortic stenosis
- (b) LBBB
- (c) LVF
- (d) RBBB

**540. Early systolic ejection sound is found in all the following except**

- (a) Aortic regurgitation
- (b) Aortic stenosis
- (c) PS
- (d) Ebsteins Anomaly

**541. P Mitrale is suggestive of**

- (a) Left atrial enlargement
- (b) LV hypertrophy
- (c) RV hypertrophy
- (d) RA enlargement

**542. Extremely tall P wave is seen in**

- (a) Pulmonary hypertension due to mitral stenosis
- (b) Pulmonary hypertension due to cor-pulmonale
- (c) Pulmonary hypertension due to Eisenmenger's syndrome
- (d) Ebsteins anomaly

**543. Variable intensity of S1 occurs in all except**

- (a) CHB
- (b) AVNRT
- (c) VT
- (d) Atrial fibrillation

**544. Paradoxical splitting of S2 due to mechanical delay of A2 occurs in all the following except**

- (a) Aortic valve stenosis
- (b) HCM
- (c) Aortic regurgitation
- (d) Mitral regurgitation

**545. All following features regarding pericardial knock are correct except**

- (a) 1<sup>st</sup> Recognized by bottom
- (b) Found in couss
- (c) Low pitched sound
- (d) It can be palpated

**546. Continuous murmur may be found in all the following except**

- (a) Small ASD
- (b) Anomalous left coronary artery
- (c) High VSD
- (d) Pulmonary artery branch stenosis

**547. All following sounds can be palpable except**

- (a) Loud P2
- (b) Loud M1
- (c) Ejection click
- (d) Tumour plop

**548. Carotid arterial pulse in chronic AR has all following features except**

- (a) Rapidrise
- (b) Bifid
- (c) Short curvation
- (d) Reduced dicrotic notch

**549. Friction rubs over liver suggest**

- (a) Viral hepatitis
- (b) Serum hepatitis
- (c) Amoebic liver abscess
- (d) Gonococcal endocarditis

**550. Outward lift over precardium occurs in all the following except**

- (a) RV enlargement
- (b) LV enlargement
- (c) Left atrium
- (d) Dilated ascending aorta

**551. Which ECG finding best correlate with LVEF?**

- (a) Q wave in precordial leads
- (b) LVH
- (c) RBBB
- (d) Low voltages

**552. Cabrera's sign in ECG is found in**

- (a) LBBB with RV pacing and extension anterior myocardial infarction

- (b) Extension inferior myocardial infarction
- (c) RV pacing with LBBB
- (d) RV pacing with diffuse myocardial disease

**553. Which of the following ECG is most important in diagnosis of MI in presence of LBBB?**

- (a) ST elevation of 1 mm or more with concordant QRS
- (b) ST depression of  $\geq 1$  mm V1 – V3
- (c) ST elevation of  $\geq 5$  mm with discordant QRS
- (d) All of the above

**554. Which is most sensitive method for predicting cardiac failure after myocardial infarction?**

- (a) Exercise ejection fraction
- (b) Rest ejection fraction
- (c) Killips class
- (d) Position exercise test

**555. Which complication does not occurs during exercise testing?**

- (a) SVT
- (b) VT
- (c) BBB
- (d) CHB

**556. Right anterior oblique view is useful in detection of all the following except**

- (a) Right atrial enlargement
- (b) Left atrial enlargement
- (c) RV enlargement
- (d) Left ventricular enlargement

**557. PA is used as injection site during angiography in which lesion?**

- (a) PS
- (b) Fallots tetralogy
- (c) Atrial septal defect
- (d) LA myxoma

**558. In OSASD which site is used of injection during angiography?**

- (a) RA
- (b) RV
- (c) LA
- (d) Right upper lobe pulmonary view

**559. Most specific and sensitive method for predicting cardiac events after myocardial infarction**

- (a) Exercise EF
- (b) Exercise EF
- (c) Positive exercise test
- (d) Killip class

**560. LV is used as injection site during angiocardiography in all the following except**

- (a) Mitral stenosis
- (b) Aortic stenosis
- (c) Atrial regurgitation
- (d) Mitral regurgitation

**561. Hand grip test integrity which part of autonomic nervous system**

- (a)  $\alpha$ -sympathetic      (b)  $\beta$ -sympathetic
- (c) Parasympathetic      (d) Baroreceptor

**562. Orthostatic test does not show integrity of which part of ANS?**

- (a)  $\beta$ -sympathetic      (b)  $\beta$ -sympathetic
- (c) Parasympathetic      (d) Baroreceptor

**563. Isoprenaline test show integrity of which part of ANS?**

- (a)  $\beta$ -sympathetic      (b)  $\beta$ -sympathetic
- (c) Parasympathetic      (d) Baroreceptor

**564. Broken brough's sign is found in**

- (a) HOCM
- (b) Aortic stenosis
- (c) Mitral regurgitation
- (d) PS

**565. ECG findings in common atrium include all the following except**

- (a) RA hypertrophy
- (b) RV hypertrophy
- (c) Prolonged PR interval
- (d) Left axis deviation

**566. All are ECG changes in trained athletes except**

- (a) Sinus bradycardia
- (b) 1 Degree AV block

- (c) QRS voltages of LVH
- (d) ST segment elevation

**567. Wide splitting of S1 is found in all except**

- (a) Ebsteins disease
- (b) RBBB
- (c) Preexcitation syndrome (LV connection)
- (d) Sinus tachycardia

**568. Clubbing occurs first in which part of the hand?**

- (a) Index finger
- (b) Little finger
- (c) Thumb
- (d) Other two finger

**569. Mammary souffle has all following feature except**

- (a) Continuous murmur
- (b) Arterial origin
- (c) Venous origin
- (d) Louder in systole

**570. Gallop de block term is applied for**

- (a) 3<sup>rd</sup> HS
- (b) 4<sup>th</sup> HS
- (c) 2<sup>nd</sup> HS (A2)
- (d) None of the above

**571. Echocardiogram confirms the diagnosis of**

- (a) Coarctation of aorta
- (b) Reno vascular disease
- (c) Hypothyroidism
- (d) Phaeochromocytoma

**572. Left parasternal lift in severe mitral regurgitation has all following features except**

- (a) Occurs later then LV apex
- (b) Synchronous with 'v' wave of LA pressure curve
- (c) Due to RV
- (d) Due to enlarged expanding LA

**573. RV lift occur best at which site**

- (a) Upper left parasternal area
- (b) Middle left parasternal area
- (c) Lower left parasternal area
- (d) Whole left parasternal area

**574. Diastolic mitral regurgitation occurs**

- (a) Mitral stenosis
- (b) Chronic aortic regurgitation
- (c) Acute aortic regurgitation
- (d) None of the above

**575. All following cardiac signs may be found during pregnancy with normal heart except**

- (a) Pedal edema
- (b) Basilar rales
- (c) Systolic murmur
- (d) Diastolic murmur

**576. Following changes may occur in ECG in subarachnoid haemorrhage except**

- (a) Short PR interval
- (b) Long QT interval
- (c) Inverted T wave
- (d) Depressed ST segment

**577. Procedure of choice for diagnosis of pericardial effusion**

- (a) X-ray chest
- (b) ECG
- (c) Clinical
- (d) Echo

**578. What happens to S3 gallop with the treatment of heart failure?**

- (a) Often persist
- (b) Often disappear
- (c) Always persist
- (d) Always disappears

**579. All following are correct regarding aortic ejection sound except**

- (a) High pitched
- (b) Usually best heard at apex
- (c) Usually best heard at aortic area
- (d) Disappears with calcification of aortic valve

**580. Which of the following is associated with most marked bisferiens pulse?**

- (a) Pure severe aortic regurgitation
- (b) Mild aortic stenosis + Moderate aortic regurgitation
- (c) Moderate aortic stenosis + Severe aortic regurgitation
- (d) Severe aortic stenosis with moderate aortic regurgitation

**581. Which type of aortic stenosis produces bisferiens pulse?**

- (a) Severe aortic valve stenosis
- (b) Supravalvular aortic stenosis
- (c) HOCM
- (d) All the above

**582. Dicrotic wave is palpable in all the following except**

- (a) Tamponade
- (b) Severe heart failure
- (c) Low output states
- (d) Mitral stenosis

**583. Bisferiens pulse found in**

- (a) Mild aortic regurgitation
- (b) Moderate aortic regurgitation
- (c) Severe aortic regurgitation
- (d) All the above

**584. Very rapid rising pulse with more pulse pressure is found in all the following except**

- (a) Mitral regurgitation
- (b) VSD
- (c) Idiopathic hypertrophic subaortic stenosis
- (d) PDA

**585. Dyspnea and ascites precedes edema likely diagnosis is**

- (a) Cirrosis of liver
- (b) Constrictive pericarditis
- (c) CHF
- (d) None of the above

**586. Dyspnoea occurring with anginal discomfort is how frequent**

- (a) 10 %
- (b) 20 %
- (c) 33 %
- (d) 50 %

**587. Facial flushing is seen in which all following cardiac condition except?**

- (a) Carcinoid heart disease
- (b) Post stokes adam's attack
- (c) Cushing's syndrome
- (d) All the above

**588. Which location of edema tends to rule out cardiac origin?**

- (a) Pedal
- (b) Sacral
- (c) Abdominal
- (d) Hand

**589. Mosque sign in ECG is found in**

- (a) Congenital hypothyroidism
- (b) Congenital hyperthyroidism
- (c) Marfan's syndrome
- (d) All the above

**590. Systolic retraction of apex beat is found in**

- (a) Mitral stenosis
- (b) Tricuspid regurgitation
- (c) PS
- (d) Constrictive pericarditis

**591. Audible splitting of S1 in normal subject is heard in**

- (a) 20 %
- (b) 40 %
- (c) 60 %
- (d) 85 %

**592. Which is in correct regarding ejection sound heard in pulmonary hypertension?**

- (a) Better heard lower down in the chest
- (b) Decrease with Inspiration
- (c) Usually not changed by respiration
- (d) All of the above

**593. Most common cause of abnormal left axis deviation**

- (a) Left anterior hemiblock
- (b) Normal
- (c) Inferior myocardial infarction
- (d) Chronic diffuse pulmonary disease

**594. Supraclavicular systolic murmurs have all the following features except**

- (a) In children and young adults
- (b) Can reach to grade 4/6
- (c) Crescendo – Decrescendo
- (d) Louder on Left Side

**595. Most common form of innocent murmurs in adults is**

- (a) Still's murmur
- (b) Supraclavicular murmur
- (c) Systolic mammary soufflé
- (d) Aortic systolic murmur

**596. Vibratory systolic murmur has all the following features except**

- (a) Twanging sound
- (b) In children between 2–6 years
- (c) Intensity 1–3/6
- (d) High frequency

**597. Innocent pulmonary systolic murmur has all the following features except**

- (a) Maximal in 2<sup>nd</sup> left intercostals space
- (b) Crescendo – Decrescendo
- (c) 2/6 intensity
- (d) Best heard on standing

**598. Exercise induced ischemia causes all the following except**

- (a) Increase end diastolic size of LV
- (b) Increase end systolic size of LV
- (c) Increase end diastolic filling rate
- (d) Ejection fraction increased

**599. ST elevation of acute pericarditis has all the following features except**

- (a) Concavity upward
- (b) Not > 5 mm
- (c) Lead avR is spared
- (d) Lead avL is spared

**600. Mammary soufflé has all following features except**

- (a) Changes with respiration
- (b) Heard over breasts
- (c) During advanced pregnancy/lactation
- (d) Due to increased blood flow to the breast

**601. All are pathological causes of vinous heart except**

- (a) Anaemia
- (b) Thyrotoxicosis
- (c) Intracranial AV Fistula
- (d) Pregnancy

**602. Most specific sign of severe PAH**

- (a) Loud palpable P2
- (b) Ejection systolic murmur in PA
- (c) Ejection click
- (d) Graham steel murmur

**603. Loud A2 in ASD suggest all the following except**

- (a) Associated coarctation of aorta
- (b) TGA with VSD
- (c) Systemic hypertension
- (d) Associated ASD (OS)

**604. P2 is absent in all the following except**

- (a) TOF
- (b) TGA
- (c) Pulmonary artesia
- (d) Eissenmenger syndrome

**605. All causes loud S1 except**

- (a) Mitral stenosis
- (b) ASD
- (c) Tachycardia
- (d) Bradycardia

**606. High frequency murmur have all following features except**

- (a) Soft
- (b) Blowing
- (c) Musical
- (d) Rumbling

**607. All are high frequency sound except**

- (a) Ejection clicks
- (b) Non ejection clicks
- (c) Pericardial knock
- (d) 4<sup>th</sup> HS

**608. All are low frequency murmur except**

- (a) MDM
- (b) Austin flint murmur
- (c) PR with normal PA pressure
- (d) PR with pulmonary hypertension

**609. Aortic ejection click of aortic stenosis has all the following features except**

- (a) Usually best heard in aortic area
- (b) Does not vary with respiration
- (c) Indicate severity of aortic stenosis
- (d) Disappears with calcified valve

**610. All following are cause of shock without S3 except**

- (a) Hypovolemic shock
- (b) Cardiogenic shock following anterior MI
- (c) Cardiac tamponade
- (d) Septic shock

**611. All following points regarding LV S3 are correct except**

- (a) Best heard at apex
- (b) Widely audible
- (c) Low pitched
- (d) Palpable

**612. All following points regarding split of S2 are correct except**

- (a) Best heard in PA
- (b) Localized
- (c) High pitched
- (d) Better heard in expiration

**613. All following are causes of aortic valvular click except**

- (a) Aortic stenosis
- (b) Aortic regurgitation
- (c) Systemic hypertension
- (d) Fallots tetralogy

**614. All following are causes pulmonary valvular clicks except**

- (a) Left-Right shunts
- (b) Pulmonary hypertension
- (c) Idiopathic dilatation of pulmonary artery
- (d) Pulmonary stenosis

**615. Diastolic murmur has following features except**

- (a) Nearly always organic
- (b) Graded by intensity
- (c) Graded by duration
- (d) Presence/absence of thrill is noted

**616. Murmur of mitral stenosis increase by all except**

- (a) Standing
- (b) Amylnitrite inhalation
- (c) Isotonic exercise
- (d) During expiration

**617. Opening snap may not be heard in mitral stenosis in all following situations except**

- (a) Mitral regurgitation
- (b) Aortic regurgitation
- (c) LVF
- (d) PAH

- 618. Musical early diastolic murmurs of aortic regurgitation occurs in all the following except**
- (a) Infective endocarditis
  - (b) Syphilis
  - (c) Congenital
  - (d) All of these
- 619. Austin flint murmur has all the following features except**
- (a) Thrill is common
  - (b) Opening snap is absent
  - (c) LV S3 may occurs
  - (d) Significant pulmonary hypertension is unlikely
- 620. Which block causes flow mid diastolic murmur in mitral area?**
- (a) 1° AV block
  - (b) LBBB
  - (c) Complete AV block
  - (d) None of the above
- 621. Which is the most reliable sign for severity of mitral stenosis?**
- (a) Loud 1<sup>st</sup> heart sound
  - (b) Length of diastolic murmur
  - (c) Presence of opening snap
  - (d) Presence of pulmonary hypertension
- 622. Functional mid diastolic murmur have all following except**
- (a) Begin in mid diastole
  - (b) Preceding 3<sup>rd</sup> heart sound
  - (c) Presence of presystolic accentuation
  - (d) Usually without thrill
- 623. All following ECG finding are found in subarachnoid hemorrhage except**
- (a) Diffuse inverted broad T
  - (b) QT prolongation
  - (c) ST elevation
  - (d) Short PR interval
- 624. Giant a wave in jugular pulse is found in which lesion?**

- (a) TS (b) TR  
(c) MR (d) AS

**625. Large 'V' wave in jugular pulse is found in**

- (a) TS (b) TR  
(c) AR (d) MS

**626. Tall 'P' wave with normal axis is found in**

- (a) TR (b) TS  
(c) MS (d) AR

**627. Bulge in lower sternal area occurs in**

- (a) PDA (b) ASD  
(c) VSD (d) MS

**628. Bulge and pulsation of upper right sternum is found in**

- (a) Aneurysm of arch of aorta  
(b) Aneurysm of ascending aorta  
(c) Aortic regurgitation  
(d) All the above

**629. Osler's node in infective endocarditis are all except**

- (a) Tender  
(b) Red  
(c) Occasionally found  
(d) Commonly found

**630. Jaundice is found in all following cardiac disorder except**

- (a) Prosthetic valves  
(b) Constrictive pericarditis  
(c) CHF  
(d) Severe rheumatic fever

**631. Ischamic T wave has all the features except**

- (a) Deep  
(b) Symmetrical  
(c) Peak like arrow head  
(d) Peak rounded

**632. All following are physiological causes of hyperkinetic state except**

- (a) After hot bath (b) Vigorous exercise  
(c) Pregnancy (d) In children

**633. Most common ECG abnormality in stroke patients is**

- (a) QT prolongation
- (b) Ischaemic changes
- (c) 'V' wave
- (d) ST elevation

**634. Which of the situs is not associated with TOF?**

- (a) Situs solitarius
- (b) Situs MV wave
- (c) Situs ambiguus
- (d) All of the above

**635. Which finding is unusual in TOF in ECG?**

- (a) RAD
- (b) Abnormal atrial rhythm
- (c) RVH
- (d) None of these

**636. Most specific test to diagnose LV thrombus**

- (a) Echo TTE
- (b) MRI
- (c) Radionuclide angiography
- (d) Indium III platelet scintigraphy

**637. Most sensitive method to detect LV thrombus**

- (a) Echo TTE
- (b) Radionuclide angiography
- (c) CT
- (d) Indium III platelet scintigraphy

**638. Most sensitive and specific test to detect LA thrombus**

- (a) Echo TTE
- (b) Echo TEE
- (c) CT
- (d) Angiography

**639. Small quiet heart with raised JVP the likely diagnosis is**

- (a) Constrictive pericarditis
- (b) MS with CHF
- (c) Restrictive cardiomyopathy
- (d) All the above

**640. Pulsus paradoxus is found in all following conditions except**

- (a) Cardiac tamponade
- (b) Pneumothorax
- (c) Massive pulmonary embolism
- (d) Pleural effusion

- 641. Bruit over an artery is not heard with which degree of obstruction**
- (a) 60 %                      (b) 70 %  
(c) 80 %                      (d) 90–100 %
- 642. All are causes of nocturnal angina except**
- (a) Left main disease  
(b) Vasospastic angina  
(c) Angina in aortic regurgitation  
(d) Angina in aortic stenosis
- 643. Normal cardiac output is**
- (a) 2 L/m                      (b) 3 L/m  
(c) 4–8 L/m                      (d) > 8 L/m
- 644. Paradoxical splitting in aortic stenosis indicates the gradient occurs the aortic valve is**
- (a) 30–40 mmHg              (b) 40–50 mmHg  
(c) 50–60 mmHg              (d) > 70 mmHg
- 645. All following features are correct regarding innocent murmurs except**
- (a) Occurs in children and young adults  
(b) Mid systolic  
(c) Originate in out-flow tracts  
(d) Originate at aortic or pulmonary valve
- 646. All are causes of mid systolic murmur except**
- (a) Functional mitral regurgitation  
(b) Functional TR  
(c) Aortic stenosis  
(d) Moderate VSD
- 647. Which is the most reliable finding in excluding the severe aortic stenosis?**
- (a) S4  
(b) Normal split S2  
(c) Soft S1  
(d) Ejection systolic murmur
- 648. Supra sternal notch pulsation occurs in all following except?**
- (a) Hypertension  
(b) Coarctation of aorta  
(c) Aortic regurgitation  
(d) Aortic stenosis

**649. Enlarged lymph nodes in neck may indicate**

- (a) Infective endocarditis
- (b) Rheumatic fever
- (c) Viral pericarditis
- (d) Cardiomyopathy due to Hodgkin's disease

**650. In bisferiens pulse all the following are correct except**

- (a) Found in combined AS and AR
- (b) If amplitude of 'P' is more + AS is dominant
- (c) If amplitude of T is greater than P AR is dominant
- (d) If amplitude of T is greater than P AS is dominant

**651. Least reliable sign of RHF is**

- (a) Increase JVP
- (b) Hepatomegaly
- (c) Pedal edema
- (d) None of the above

**652. Ascites appears early than edema in all the conditions except**

- (a) CHF
- (b) TS
- (c) Constrictive pericarditis
- (d) All of the above

**653. Pulsus parvus et tardus is found in all the following except**

- (a) Aortic stenosis
- (b) Supravalvular aortic stenosis
- (c) Subvalvular AS by fibrous diaphragm
- (d) HOCM

**654. The gradient in HCM is increased by all except**

- (a) Hypovolemia
- (b) Hypotension
- (c) Nitrates
- (d)  $\beta$ -Blockers

**655. Which is commonest adverse effect of dipyridamall thallium scintigraphy?**

- (a) Chest pain
- (b) Myocardial infarction
- (c) Hypertension
- (d) Death

**656. All are cardiac causes of collapsing pulse except**

- (a) Arterio – Venous fistula
- (b) Pagets disease
- (c) Pregnancy
- (d) Hepatic disease

**657. In moderate – severe PH which of the following statement is correct?**

- (a) P2 and A2 equally loud
- (b) P2 more loud than A2
- (c) P2 less loud than A2
- (d) All the above

**658. Commonest cause of cardiac syncope**

- (a) Tachyarrhythmias
- (b) Bradyarrhythmia
- (c) Carotid sinus syncope
- (d) Aortic stenosis

**659. Enlarged heart is less common in all except**

- (a) Acute myocardial infarction
- (b) ASD
- (c) Eisenmenger's syndrome
- (d) Aortic regurgitation chronic

**660. S4 is more common in all the following except**

- (a) Aortic stenosis
- (b) Hypertension
- (c) Myocardial infarction
- (d) Restrictive cardiomyopathy

**661. Most common cause of crescendo decrescendo murmur**

- (a) Aortic stenosis
- (b) Mitral regurgitation
- (c) Thyrotoxicosis
- (d) HCM

**662. Kerley's lines have all the following features except**

- (a) Less common B lines in PVH
- (b) Are longer than B lines
- (c) Radiate from hilum of lung to midzone
- (d) Radiate from hilum of lung in to lower zone

- 663. Which is most sensitive parameter for RVH in COPD?**
- (a) RAD
  - (b) R/S ratio  $> 1$  in V1
  - (c) R/S ratio  $< 1$  in V6
  - (d) T decrease in right pericardial leads
- 664. In constrictive pericarditis all are found except**
- (a) Pulses paradoxus
  - (b) Kussmaul's sign
  - (c) Pericardial knock
  - (d) Murmurs
- 665. Most common direction of T waves in adults V1 is**
- (a) Upright
  - (b) Flat
  - (c) Inserted
  - (d) All the above
- 666. Earliest change in RVH in ECG is**
- (a) RAD
  - (b) R/S  $\geq 1$  in V1
  - (c) R/S  $\leq 1$  in V6
  - (d) All the above
- 667. All following are usual causes of tricuspid murmur except**
- (a) ASD
  - (b) TR
  - (c) Anomalous pulmonary venous drainage
  - (d) Hyperkinetic circulation
- 668. Inverted P in L1 is found in all following condition except**
- (a) Dextrocardia
  - (b) Left atrial rhythm
  - (c) Low atrial rhythm
  - (d) Dextroversion
- 669. Prominent aortic knob indicates**
- (a) PDA
  - (b) VSD
  - (c) ASD
  - (d) None of the above
- 670. All are non cardiac conditions associated with abnormal Q except**
- (a) Peper excavatum
  - (b) Emphysema
  - (c) Pneumothorax
  - (d) Pleuritis
- 671. Pulmonary ejection sound is heard in all the following except**

- (a) PS
- (b) PH
- (c) ASD without PH
- (d) Idiopathic dilatation of PA

**672. Respiratory variation of pulmonary ejection click occurs in which position**

- (a) Standing
- (b) Sitting
- (c) Lying supine
- (d) Lying in lateral position

**673. All following are causes of non ejection click except**

- (a) Atrial septal aneurysm
- (b) Ventricular septal aneurysm
- (c) Mitral valve prolapse
- (d) None of these

**674. Short QT syndrome has all following features except**

- (a) QRS is wide
- (b) ST segment is absent
- (c) T narrow, tall and symmetrical
- (d) Recurrent syncope

**675. ST increase occurs in which of the following**

- (a) Acute myocarditis
- (b) Chronic myocarditis
- (c) Inflammatory cardiomyopathy
- (d) All the above

**676. All are causes of acute right bundle branch block except**

- (a) Myocardial infarction
- (b) Repair of VSD
- (c) Myocarditis
- (d) Cor pulmonale

**677. All are causes of chronic right bundle branch block except**

- (a) Fibrosis
- (b) Ebsteins anomaly
- (c) Cardiomyopathy
- (d) Cardiac catheterization

- 678. All are causes of acute left bundle branch block except**
- (a) Myocardial infarction
  - (b) Septal myomectomy
  - (c) Myocarditis
  - (d) Aortic stenosis
- 679. Nuclear cardiology is not useful in which cardiac disease?**
- (a) IHD
  - (b) CMP
  - (c) Valvular heart disease
  - (d) Pericardial disease
- 680. In which globular cardiomegaly the cardio-phrenic angle is obtuse?**
- (a) Dilated cardiomyopathy
  - (b) Multivalvular disease
  - (c) Ebstein's anomaly
  - (d) Pericardial effusion
- 681. No jugular veins are visible in which of the following condition?**
- (a) SVC obstruction
  - (b) Tricuspid stenosis
  - (c) Pulmonary hypertension
  - (d) Constrictive pericarditis
- 682. Narrow pulse pressure is found in all except**
- (a) Shock
  - (b) Severe heart failure
  - (c) Hypovolemia
  - (d) Hypothyroidism
- 683. All are cardiac causes of haemoptysis except**
- (a) Left ventricular failure
  - (b) Eisenmengers syndrome
  - (c) Mitral stenosis
  - (d) Pulmonary stenosis
- 684. Presystolic murmur of TS is**
- (a) Crescendo
  - (b) Decrescendo
  - (c) Crescendo – Decrescendo
  - (d) All the above

- 685. Left parasternal lift of severe mitral regurgitation has all following features except**
- (a) Produced by enlarged LA
  - (b) Occurs later than apical impulse
  - (c) Synchronous with V wave of left atrial pressure curve
  - (d) Due to anterior displacement of RV by enlarged LA
- 686. RV lift is felt best at which location?**
- (a) Upper left parasternal
  - (b) Mid left parasternal
  - (c) Lower left parasternal
  - (d) Whole of left parasternal region
- 687. Thrill is most commonly associated with**
- (a) Aortic stenosis
  - (b) Mitral regurgitation
  - (c) VSD
  - (d) Aortic regurgitation
- 688. All following medium pitched murmurs except**
- (a) Aortic stenosis
  - (b) Mitral regurgitation
  - (c) TR
  - (d) Aortic regurgitation
- 689. Which is the least common change in ECG in myxedema?**
- (a) Flattening or inversion of T wave
  - (b) Low P wave
  - (c) Low voltage of QRS
  - (d) Tachyarrhythmias
- 690. Ascites is a feature of**
- (a) Constrictive pericarditis
  - (b) Cor pulmonale
  - (c) Advanced heart failure
  - (d) All the above
- 691. In all following conditions diaphoresis may occur except**
- (a) Acute myocardial infarction
  - (b) Severe aortic regurgitation
  - (c) Heart failure in infant
  - (d) Bradyarrhythmias

**692. Dysphagia may occur in all the following**

- (a) Aortic arch anomaly
- (b) Extremely long LA
- (c) Ventricular aneurysm
- (d) None of these

**693. Hiccups occurs in which cardiac condition?**

- (a) Stable angina
- (b) Unstable angina
- (c) Acute myocardial infarction
- (d) Heart failure

**694. Arterial pulsation over right sternoclavicular joint are due**

- (a) Aneurysm of aorta
- (b) Dissection of aorta
- (c) Aortic regurgitation
- (d) Aortic stenosis

**695. Arterial pulsation in right sternoclavicular joint with chest pain is caused by**

- (a) Aortic regurgitation
- (b) Aneurysm
- (c) Dissection of aorta
- (d) Right sided aortic arch

**696. Sustained double apical impulse is found in**

- (a) Cong valvular aortic stenosis
- (b) Acquired valvular aortic stenosis
- (c) Congenital subvalvular aortic stenosis
- (d) Hypertrophic obstructive cardiomyopathy

**697. Split S2 is normal in all the following except**

- (a) Congenital aortic stenosis valvular
- (b) Acquired valvular aortic stenosis
- (c) Supravalvular aortic stenosis
- (d) Subvalvular aortic stenosis

**698. ST increase right precordial leads occurs in all the following except**

- (a) LVH
- (b) Long QT syndrome type 3
- (c) Acute pulmonary embolism
- (d) Right ventricular hypertrophy

- 699. Innocent murmurs have all following features except**
- (a) Soft
  - (b) Mid systolic
  - (c) Left sternal border
  - (d) Radiation is present
- 700. All haemodynamic changes of respiration are correct except (during inspiration)**
- (a) JV pulse decrease
  - (b) Heart rate decrease
  - (c) Blood pressure decrease
  - (d) S2 Splits
- 701. During expiration all following haemodynamic changes occurs except**
- (a) JV Pulse increase
  - (b) Blood pressure increases
  - (c) Heart rate increases
  - (d) S2 split fuses
- 702. Myocardial ischemic pain has which characteristic?**
- (a) Sharp
  - (b) Standing
  - (c) Knifelike
  - (d) Burning
- 703. Cheyne stokes respiration is found in**
- (a) Acute left ventricular failure
  - (b) Constrictive pericarditis
  - (c) Hypertrophic cardiomyopathy
  - (d) Pulmonary hypertension
- 704. Bulge along the left cardiac border with retrosternal double density is diagnostic of**
- (a) Biventricular hypertrophy
  - (b) Left ventricular hypertrophy
  - (c) Right ventricular hypertrophy
  - (d) LV aneurysm
- 705. All are complications of right heart catheterization except**
- (a) Hemothorax
  - (b) Tracheal perforation
  - (c) RV perforation
  - (d) Left bundle branch block

- 706. All are cause of diastolic flow murmur at tricuspid valve except**
- (a) ASD (OS)
  - (b) Total anomalous pulmonary venous drainage
  - (c) TR
  - (d) Hyperkinetic circulation
- 707. Symmetrical T elevation in acute pericarditis is due to**
- (a) Subendocardial ischemia
  - (b) Epicardial ischemia
  - (c) Non specific
  - (d) Pericardial inflammation
- 708. Finger palpation of pulse is done when**
- (a) High volume pulse
  - (b) Biaferiesis pulse
  - (c) Small volume pulse
  - (d) All of the above
- 709. Bisferiens pulse may be felt in severe aortic regurgitation in how many patient?**
- (a) 30 %
  - (b) 50 %
  - (c) 75 %
  - (d) 100 %
- 710. In which position of patient the apex beat should be felt usually?**
- (a) Sitting position with feet on bed
  - (b) Supine position
  - (c) Left lateral
  - (d) Any of the above
- 711. In which condition sustained displaced LV impulse is felt without LVH?**
- (a) Thin person
  - (b) Mitral regurgitation
  - (c) Anaemia
  - (d) Congenital absence of pericardium
- 712. Most common cause of chronic increased stiffness of left ventricle**
- (a) Hypertension
  - (b) Coronary artery disease
  - (c) Aortic stenosis
  - (d) L - R shunt

- 713. When does LV expand rapidly?**
- (a) Early diastole
  - (b) Mid diastole
  - (c) Late diastole
  - (d) Holo diastole
- 714. Post PVC pulse pressure in IHSS is never**
- (a) Wide
  - (b) Narrow
  - (c) Same
  - (d) All of the above
- 715. All following signs in severe aortic regurgitation picked up by auscultation except**
- (a) Pistol shot sounds over femoral artery
  - (b) Duroziez murmur
  - (c) Wide pulse pressure
  - (d) Bisferiens pulse
- 716. All are the causes of capillary pulsation except**
- (a) Severe aortic regurgitation
  - (b) Systolic hypertension
  - (c) Sinus bradycardia
  - (d) HOCM
- 717. In which phase of respiration the apex beat best felt?**
- (a) Fully held expiration
  - (b) Fully held inspiration
  - (c) Middle of inspiration or expiration
  - (d) Any of the above
- 718. Normally while measuring blood pressure, what should be used to hear the sounds?**
- (a) Bell of stethoscope
  - (b) Diaphragm of stethoscope
  - (c) Either of the two
  - (d) All of the above
- 719. Doppler probe is used to measure blood pressure in all the following except**
- (a) Infants
  - (b) Shock state
  - (c) During cardio pulmonary resuscitation to know the effectiveness of blood flow
  - (d) For measuring both systolic and diastolic blood pressure

**720. All are causes of non aortic non pulmonary ejection sounds except**

- (a) Persistent truncus arteriosus
- (b) Mitral valve prolapse
- (c) Membranous ventricular septal defect
- (d) Ventricular aneurysm

**721. Exaggerated left pure sternal movement occurs in all the following except**

- (a) TAPVD
- (b) Aortic regurgitation
- (c) Mitral stenosis
- (d) ASD

**722. All are causes of aortic ejection sound except**

- (a) Hypertension
- (b) Aortic stenosis
- (c) Bicuspid aortic valve
- (d) Aortic regurgitation

**723. Tissue doppler is particularly useful in all the following except**

- (a) LV function both systolic and diastolic
- (b) Quantitative measurement of RWMA
- (c) Evaluation of intracardiac masses
- (d) Valvular stenosis density

**724. Patients with pacemaker should avoid which of the following?**

- (a) Microwave
- (b) Electric brush
- (c) CT Scan
- (d) MRI

**725. Most common cause of raised JVP is**

- (a) CHF
- (b) SVC obstruction
- (c) Constrictive pericarditis
- (d) Cardiac tamponade

**726. All are causes of low JVP except**

- (a) Hypovolemia
- (b) Shock
- (c) Addison's disease
- (d) Myxedema

**727. Absent 'y' descent is found in**

- (a) Constrictive pericarditis
- (b) Cardiac tamponade
- (c) TS
- (d) TR

**728. 'V' wave is prominent in neck waves in**

- (a) TS
- (b) TR
- (c) CHB
- (d) Tricuspid atresia

**729. Positive hepatojugular reflux is found in**

- (a) RHF
- (b) LHF
- (c) TR
- (d) Budd-chiari syndrome

**730. All are causes of reverse paradoxus except**

- (a) HOCM
- (b) Intermittent positive pressure
- (c) A - V dissociation
- (d) 1 Degree AV block

**731. All are causes of dicrotic pulse except**

- (a) Typhoid fever
- (b) Dehydration
- (c) Cardiac tamponade
- (d) Constrictive pericarditis

**732. All are cardiac causes of low voltage ECG except**

- (a) Pericardial effusion
- (b) Amyloid heart disease
- (c) Cardiomyopathy
- (d) Segmental myocardial ischemia

**733. All are causes of changing murmur except**

- (a) Left atrial myxoma
- (b) Infective endocarditis
- (c) Cor triatriatum
- (d) Atrial thrombosis

**734. Wide and fixed splitting of S2 occurs in all except**

- (a) ASD (OS)
- (b) Partial anomalous pulmonary venous damage
- (c) Massive acute pulmonary embolism
- (d) Sinus venosus ASD

- 735. All are common causes of kussmaul signs except**
- (a) Constrictive pericarditis
  - (b) Cardiac tamponade
  - (c) RV infarction
  - (d) Severe right ventricular failure
- 736. All following skeletal abnormalities occurs in cardiac disease except**
- (a) Pectus excavatum
  - (b) Arachnodactyly
  - (c) Absent radius
  - (d) Absent ulna
- 737. Postural hypotension does not occurs with all following antihypertensives except**
- (a) Labetalol
  - (b)  $\alpha$ -Blockers
  - (c) Clonidine
  - (d) Methyldopa
- 738. What is levine test?**
- (a) Disappearance of angina by clinched fist
  - (b) Nocturnal angina
  - (c) Linked angina
  - (d) Decrease in intensity of angina by carotid sinus massage
- 739. All are anginal equivalents except**
- (a) Palpitation
  - (b) Fatigue
  - (c) Dyspnoea
  - (d) Diaphoresis
- 740. All following are causes of platypnoea except**
- (a) Left atrial myxoma
  - (b) Left atrial thrombosis
  - (c) Pulmonary arteriovenous fistula
  - (d) LVF
- 741. Pulmonary ejection sound is found in**
- (a) Dome shaped pulmonary valve stenosis
  - (b) Dysplastic pulmonary valve stenosis
  - (c) Discrete subvalvular PS
  - (d) Pulmonary artery branch stenosis
- 742. Normal ECG is found in all the following except**
- (a) Innocent murmur
  - (b) Physiological murmur
  - (c) Idiopathic dilatation of pulmonary arteries
  - (d) Severe aortic stenosis

- 743. 1<sup>st</sup> HS in mitral stenosis has all features except**
- (a) Loud
  - (b) Sharp
  - (c) Palpable
  - (d) Split
- 744. Collapsing pulse is best appreciated by palmar aspect of four finger with in which artery**
- (a) Carotid
  - (b) Axillary
  - (c) Brachial
  - (d) Radial
- 745. Tapping apex beat in mitral stenosis suggest**
- (a) Normal sinus rhythm
  - (b) Anterior mitral leaflet is pliable
  - (c) Posterior mitral leaflet is pliable
  - (d) Both leaflet are pliable
- 746. All following sounds and murmurs are heard in supine position except**
- (a) Opening snap
  - (b) HS (S1-S2-S3-S4)
  - (c) Systolic murmur
  - (d) Aortic diastolic murmur
- 747. Which ECG change is found in hypoglycemia?**
- (a) Tall T
  - (b) J wave
  - (c) ST increase
  - (d) 1° AV block
- 748. Abnormal 'P' terminal force in V1 is found in all except**
- (a) Normal middle aged males
  - (b) Diffuse pulmonary disease
  - (c) Left atrial abnormality
  - (d) RV enlargement
- 749. V1-T wave > V6-T wave always indicates myocardial dysfunction due**
- (a) Hypertension
  - (b) Coronary artery disease
  - (c) Valvular heart disease
  - (d) May be found in normal
- 750. QS complexes in V1 and V2 are found in all except**
- (a) Emphysema
  - (b) Anteroseptal myocardial infarction
  - (c) LVH
  - (d) Cardiomyopathy

- 751. Notching with two collages QR in L1 decrease L2 is found in**
- (a) Myocardial infarction
  - (b) LVH
  - (c) Amyloidosis
  - (d) Myocardial fibrosis
- 752. False +ve exercise test occurs in all the following except**
- (a) MVP
  - (b) HOCM
  - (c) WPW syndrome
  - (d) Mitral stenosis
- 753. All following occurs in neck veins in TR**
- (a) Increase JVP
  - (b) Early 'v' wave
  - (c) Rapid y descent
  - (d) Prominent 'a' wave
- 754. Which is the least common change in ECG in athletes?**
- (a) ST decrease
  - (b) ST increase
  - (c) RVH
  - (d) RBBB
- 755. Pulses paradoxus may be absent in cardiac tamponade in all following situations except**
- (a) ASD
  - (b) VSD
  - (c) AR
  - (d) Hypotension
- 756. All following occurs in neck veins in TR**
- (a) Increase JVP
  - (b) Early 'v' wave
  - (c) Rapid y descent
  - (d) Prominent 'a' wave
- 757. Which is best method for assessment of myocardial ischemia?**
- (a) Histroy
  - (b) Physical examination
  - (c) X-ray chest
  - (d) ECG
- 758. Functional capacity is best assessed by**
- (a) Exccercise test
  - (b) Echo
  - (c) ECG
  - (d) X-ray chest PA

**ANSWERS**

1. (a)    2. (a)    3. (c)    4. (c)    5. (b)  
6. (d)    7. (a)    8. (a)    9. (c)    10. (a)  
11. (b)    12. (c)    13. (b)    14. (d)    15. (c)  
16. (c)    17. (b)    18. (b)    19. (d)    20. (b)  
21. (b)    22. (d)    23. (a)    24. (a)    25. (c)  
26. (d)    27. (c)    28. (c)    29. (d)    30. (b)  
31. (c)    32. (a)    33. (c)    34. (a)    35. (a)  
36. (c)    37. (d)    38. (c)    39. (c)    40. (b)  
41. (a)    42. (d)    43. (a)    44. (b)    45. (b)  
46. (b)    47. (d)    48. (c)    49. (d)    50. (c)  
51. (d)    52. (a)    53. (c)    54. (c)    55. (c)  
56. (d)    57. (c)    58. (d)    59. (d)    60. (d)  
61. (d)    62. (c)    63. (b)    64. (a)    65. (c)  
66. (d)    67. (b)    68. (c)    69. (d)    70. (d)  
71. (b)    72. (d)    73. (d)    74. (d)    75. (d)  
76. (d)    77. (d)    78. (b)    79. (c)    80. (d)  
81. (c)    82. (d)    83. (c)    84. (c)    85. (c)  
86. (a)    87. (b)    88. (d)    89. (d)    90. (a)  
91. (b)    92. (c)    93. (d)    94. (c)    95. (d)  
96. (b)    97. (d)    98. (c)    99. (d)    100. (d)  
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116. (b)    117. (d)    118. (e)    119. (c)    120. (c)  
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## SECTION-2

# HEART FAILURE AND CARDIOMYOPATHY

1. **Which is not a cause of chronic cor pulmonale?**
  - (a) Chronic obstructive pulmonary disease
  - (b) Recurrent pulmonary emboli
  - (c) Mitral stenosis
  - (d) Kyphoscoliosis
2. **Commonest cause of right ventricular failure is**
  - (a) Cor pulmonale
  - (b) Pulmonary involvement
  - (c) Endomyocardial fibrosis
  - (d) Left ventricular failure
3. **Which of the following is false regarding hypertrophic obstructive cardiomyopathy?**
  - (a) Digoxin is used
  - (b) Asymmetric septal hypertrophy
  - (c) Forward flow obstruction
  - (d) Anterior motion of mitral valve
4. **All are true about hypertrophic obstructive cardiomyopathy except**
  - (a) Asymmetric hypertrophy of septum
  - (b) Systolic motion of anterior leaflet of mitral valve
  - (c) Left ventricle outflow obstruction
  - (d) Beta blockers are not effective
5. **Cardiac resynchronizing therapy does all except**
  - (a) Improves LVEF
  - (b) Improves exercise tolerance
  - (c) Improves quality of life
  - (d) Decreases mortality

- 6. Least commonly encountered physical sign in pulmonary arterial hypertension is**
- (a) Loud P2
  - (b) Tricuspid regurgitation
  - (c) Right sided S4
  - (d) Graham steell murmur
- 7. Which atrial arrhythmia is most common the in heart failure?**
- (a) Atrial tachycardia
  - (b) AVN reentrant tachycardia
  - (c) Atrial flutter
  - (d) Atrial fibrillation
- 8. Drug of choice in case of betablocker overdose is**
- (a) Atropine
  - (b) Glucagon
  - (c) Amrinone
  - (d) Dobutamine
- 9.  $\beta$ -blockers are contraindicated in all of the following conditions except**
- (a) Severe heart failure
  - (b) Sick sinus syndrome
  - (c) High grade AV block
  - (d) 1degree AV block
- 10. Which position is best in pregnancy with heart failure?**
- (a) Right lateral
  - (b) Left lateral
  - (c) Supine
  - (d) Sitting
- 11. Which of the following drug is contraindicated in heart failure during pregnancy?**
- (a) Digoxin
  - (b) Diuretics
  - (c) Hydralazine
  - (d) ACE inhibitors
- 12. Commonest cause of heart failure is**
- (a) IHD
  - (b) Valvuler heart disease
  - (c) Hypertension
  - (d) Diluted CMP
- 13. Which beta-blocker is most cardioselective?**
- (a) Acebutalol
  - (b) Carvedilol
  - (c) Propranolol
  - (d) Bisoprolol

- 14. Which is not found in restrictive cardiomyopathy?**
- (a) Regurgitant (A-V) murmur
  - (b) Pericardial calcification
  - (c) Increased wall thickness
  - (d) Enlarged atrium
- 15. What extent of disarray is characteristic of hypertrophic cardiomyopathy?**
- (a) 1% of total myocardium
  - (b) 2% of total myocardium
  - (c) 2.4% of total myocardium
  - (d) > 5% of total myocardium
- 16. LVH in hypertrophic cardiomyopathy typically occurs**
- (a) During first years of life
  - (b) During adolescence
  - (c) Early twenties
  - (d) After 25 years
- 17. Abnormal Q in HCM is found in which leads**
- (a) Septal leads (V1-V3)
  - (b) V1-V6
  - (c) L1& aVL
  - (d) Inferolateral leads
- 18. All statement regarding secondary mitral regurgitation in heart failure are correct except**
- (a) Due to annular dilation
  - (b) Due to poor contraction of papillary muscle
  - (c) Mitral regurgitation regurgitant volume decreases by carvedilol
  - (d) Digoxin decreases mitral regurgitation in heart failure
- 19. All are haemodynamic findings in HOCM except**
- (a) Increased left ventricular inflow pressure
  - (b) Late peak systolic gradient
  - (c) Spike dome aortic flow
  - (d) Early peak systolic gradient

- 20. Potassium sparing diuretics acts at**
- (a) Distal tubule
  - (b) Loop of henle
  - (c) Cortical diluting segment
  - (d) All of the above
- 21. During of choice for HCM with obstruction at rest is**
- (a) Verapamil
  - (b) Diltiazem
  - (c) Disopyrrmide
  - (d)  $\beta$ -blocker
- 22. Drug of choice the latent obstructive HCM is**
- (a)  $\beta$ -blocker
  - (b) Diltiazem
  - (c) Verapamil
  - (d) Disopyramide
- 23. Drug of choice for nonobstructive HCM**
- (a) Calcium antagonist
  - (b)  $\beta$ -blocker
  - (c) Disopyramide
  - (d) Combined  $\beta$ -blocker & disopyramide
- 24. Atrial fibrillation in HCM is most commonly related to**
- (a) Extent of hypertrophy
  - (b) Presence of obstruction
  - (c) Absence of obstruction
  - (d) Left atrial enlargement
- 25. In which type of HOCM ST segment is usually elevated?**
- (a) When RV is involved
  - (b) Apical HCM
  - (c) Mid ventricular obstruction
  - (d) Sub aortic obstruction
- 26. Which inotropic agent has no effect on blood pressure?**
- (a) Dopamine
  - (b) Dobutamine
  - (c) Adrenaline
  - (d) Noradrenaline
- 27. Which of the following inotropic agent increases SVR?**
- (a) Norepinephrine
  - (b) Epinephrine
  - (c) Amrinone
  - (d) Milrinone
- 28. Most common presenting symptom in pulmonary hypertension is**

- (a) Dyspnea                      (b) Fatigue  
(c) Chest pain                    (d) Syncope
- 29. All of the following about carvedilol are correct except**
- (a) Antioxidant  
(b) Both  $\beta$ -1 &  $\beta$ -2 blocker  
(c) No direct smooth (vascular) muscle cell relaxation  
(d) Does not act on ' $\alpha$ ' receptors
- 30. Metoprolol has all the following features except**
- (a)  $\beta$ -1 blocker  
(b)  $\alpha$ -1 blocker  
(c) No effect on  $\beta$ -2  
(d) No antioxidant effect
- 31. All are possible mechanism of action of beta-blockers in improvement of heart failure except**
- (a) Upregulation of  $\beta$ -receptors  
(b) Decreases heart rate so better myocardial perfusion  
(c) Antiapoptosis effect  
(d) Increases ventricular muscle hyper trophy
- 32. Which drug is indicated in asymptomatic left ventricular dysfunction?**
- (a) Digoxin  
(b) Diuretics  
(c) Hydralazine + Nitrate  
(d) ACE inhibitors
- 33. All except inchoation of fab fraction antidigoxin antibody**
- (a) Hemodynamically unstable ventricular arrhythmia  
(b) Ingestion of more than 10 mg of digoxia is adult  
(c) Advanced AV blocker responsive to atropine  
(d) 1 degree AV block

- 34. Low central venous pressure reflects**
- (a) Low blood volume
  - (b) Low right atrial pressure
  - (c) Low RVEDP
  - (d) All of the above
  - (E) None of the above
- 35. A 60 years aged female presents with acute breathlessness her haemodynamic parameters were as follows.**
- 1. RA (mean) 12 mm Hg
  - 2. RV systolic 50 mm Hg
  - 3. PA systolic 50 mm Hg
  - 4. PCWP 10 mm Hg
- The likely diagnosis is
- (a) Cardiac tamponade
  - (b) Right ventricular myocardial infarction
  - (c) Acute VSD
  - (d) Massive pulmonary embolism
- 36. Hypertrophic obstructive cardiomyopathy (HOCM) is characterized by all the following features except**
- (a) LVOT gradient
  - (b) Septal hypertrophy
  - (c) Aortic stenosis
  - (d) A small LV cavity
- 37. Patients of HOCM will have all the following symptoms except**
- (a) Syncope
  - (b) Dyspnoea
  - (c) Nocturnal cough
  - (d) Chest pain
- 38. The characteristic radial pulse in HOCM is**
- (a) Pulsus bisferens
  - (b) Collapsing pulse
  - (c) Jerky pulse
  - (d) Anacrotic pulse
- 39. Characteristic apex beat in the classical HOCM is**
- (a) Well sustained and heaving
  - (b) Bifid apex
  - (c) Tapping
  - (d) Hyper dynamic
- 40. Diagnosis of HCM is confirmed by**
- (a) ECG
  - (b) X-ray chest
  - (c) Echocardiography
  - (d) Angiography

- 41. Following are the characteristic of HCM on doppler except**
- (a) Increased LVOT flow
  - (b) LV Diastolic dysfunction
  - (c) Mitral regurgitation
  - (d) Aortic regurgitation
- 42. Drugs used in the treatment of HOCM include all of following except**
- (a) Quinidine
  - (b) Verapamil
  - (c) Amiodarone
  - (d) Disopyramide
- 43. Apical cardiomyopathy is most frequent in one of the following countries**
- (a) India
  - (b) USA
  - (c) Japan
  - (d) UK
- 44. Surgical treatment is indicated in the following form of HCM except**
- (a) Concentric LVH
  - (b) Apical HCM
  - (c) Septal HCM
  - (d) Midventricular HCM
- 45. The type of pacemaker used in the HOCM is**
- (a) VVI pacemaker
  - (b) DDD pacemaker
  - (c) AAI pacemaker
  - (d) VDD pacemaker
- 46. All the following agents are used in  $\beta$ -blockers over dose except**
- (a) Isoprenaline
  - (b) Dobutamine
  - (c) Glucagon
  - (d) Atropine
- 47. All are clinical signs of abrupt  $\beta$ -blocker with drawl except**
- (a) Angina
  - (b) Myocardial infarction
  - (c) Sudden cardiac death
  - (d) Hypotension
- 48.  $\beta$ -blocker in acute Q wave myocardial infarction are beneficial in all except**
- (a) Reduce recurrent non fatal myocardial infarction
  - (b) Reduce sudden cardiac death
  - (c) Reduce total mortality
  - (d) Reduces LV dysfunction

- 49. Most common arrhythmia in heart failure is**
- (a) Atrial tachycardia
  - (b) Atrio ventricular node reentry tachycardia
  - (c) AVN tachycardia
  - (d) Atrial fibrillation
- 50. Which of the following condition produces both relaxation and restrictive diastolic dysfunction?**
- (a) Hypertrophy
  - (b) Fibrosis
  - (c) Abnormal loading
  - (d) Ischemia
- 51. Which is correct statement for mechanism of paroxysmal nocturnal dyspnea?**
- (a) Expansion of thoracic blood volume
  - (b) Elevation of diaphragm
  - (c) Reduced adrenergic drive
  - (d) All the above
- 52. Which mechanism of dyspnea in heart failure is incorrect?**
- (a) Decreased pulmonary compliance
  - (b) Hypoxemia
  - (c) Increased CO<sub>2</sub> production
  - (d) Metabolic alkalosis
- 53. Ascites in heart failure is due to all except**
- (a) Hepatic vein hypertension
  - (b) Peritoneal vein hypertension
  - (c) Lymphatic obstruction
  - (d) Protein losing enteropathy
- 54. Non cardiogenic pulmonary edema has all following features except**
- (a) No S3
  - (b) Bounding pulse
  - (c) ECG is usually normal
  - (d) PCWP > 18 mm Hg
- 55. Hypoperfusion is suspected from all except**
- (a) Wide pulse pressure
  - (b) Cool extremities
  - (c) Decreased urine output
  - (d) Mental obtundation

- 56. Which statement is incorrect for target dose of ACE inhibitors in heart failure?**
- (a) Ramipril 10 mg orally daily
  - (b) Lisinopril 10 mg orally daily
  - (c) Captopril 150 mg daily
  - (d) Enalapril 40 mg daily
- 57. Which Ca-blocker maximally increases digoxin levels?**
- (a) Nifedipine
  - (b) Amlodipine
  - (c) Diltiazem
  - (d) Verapamil
- 58. Which ECG finding strongly favours diagnosis congestive cardiomyopathy?**
- (a) Non specific ST/T changes
  - (b) Sinus tachycardia
  - (c) Right bundle branch block
  - (d) Left bundle branch block
- 59. Restrictive cardiomyopathy has all the following feature except**
- (a) AV valve regurgitant murmur
  - (b) Atrial fibrillation is common
  - (c) Conduction defects uncommon
  - (d) Pseudo infarct pattern is common
- 60. Which drug is contraindicated in hypertrophic cardiomyopathy?**
- (a)  $\beta$ -blockers
  - (b) Verapamil
  - (c) Disopyramide
  - (d) ACE inhibitors
- 61. Surgical interception is indicated in all the following in hypertrophic cardiomyopathy except**
- (a) Medical failure
  - (b) Out flow gradient < 30 mm Hg on rest
  - (c) Severe mitral regurgitation
  - (d) Very thick inter ventricular septum
- 62. Apical hypertrophic cardiomyopathy has all the following features except**
- (a) Low risk of sudden cardiac death
  - (b) Giant T wave inversion with high precordial QRS voltage
  - (c) Gradient at out flow tract
  - (d) Syncope uncommon

- 63. The risk features for development of doxorubicin cardiomyopathy are except**
- (a) Age > 70 years
  - (b) Prior cardiac disease
  - (c) Hypertension
  - (d) Dyslipidemia
- 64. Normal and deep Q wave is commonly encountered in**
- (a) IHSS
  - (b) VSD
  - (c) Pectus excavatum
  - (d) All the above
- 65. All are non heart failure cause of pathological S3 except**
- (a) Mitral regurgitation
  - (b) Aortic regurgitation
  - (c) Left to right shunt
  - (d) Hypovolemia
- 66. All following associated with pathological S3 in heart failure except**
- (a) Dilated left ventricular
  - (b) LVEF < 45 %
  - (c) LVEDP > 25 mm Hg
  - (d) Cardiac index > 2L /min / m<sup>2</sup>
- 67. In hypertensive acute heart failure drug of choice is**
- (a) Nitroprusside
  - (b) Hydralazine
  - (c) Beta-blocker
  - (d) Nifedipine
- 68. RVF in secondary pulmonary hypertension is ineffable?**
- (a) Mild rise in PAP
  - (b) Moderate rise in PAP
  - (c) RVP is equal or more to systemic pressure
  - (d) None of the above
- 69. Gold standard method for diagnosis of pulmonary hypertension is**
- (a) Clinical
  - (b) Radiological
  - (c) ECG
  - (d) Cardiac catheterization
- 70. Pulmonary thromboembolic disease best diagnosed by**

- (a) X-ray chest
  - (b) ECG
  - (c) Ventilation / Perfusion scan
  - (d) Clinical
- 71. Most common cause of secondary pulmonary hypertension is**
- (a) Left ventricular failure
  - (b) MR without LVF
  - (c) Left-right shunt (Small)
  - (d) AV disease without LV dysfunction
- 72. Most effective therapy for long term use of PPH is**
- (a) Nitric oxide
  - (b) Ca-channel blockers
  - (c) Iloprost (Stable prostacyclin analogue)
  - (d) All of the above
- 73. All are indication of resynchronization therapy except**
- (a) True refractory heart failure
  - (b) EF < 35 %
  - (c) LBBB with QRS duration > 0.15 sec.
  - (d) Sinus node dysfunction
- 74. Nitrates are contraindicated in all the following except**
- (a) Heart failure
  - (b) Glaucoma
  - (c) Hypovolemia
  - (d) Right ventricular infarction
- 75.  $\beta$ -blockers are not contraindicated in which cardiac disorder**
- (a) Severe left ventricle failure
  - (b) Systolic blood pressure < 90 mm Hg
  - (c) All degrees of AVB
  - (d) LBBB
- 76. Digoxin is indicated in heart failure in all the following situations except**
- (a) Heart failure with atrial fibrillation
  - (b) Heart failure with S3
  - (c) Heart failure in NYHA III / IV
  - (d) All cases of heart failure

- 77. Commonest cause of death in cardiac transplant is**
- (a) Infarction
  - (b) Rejection
  - (c) Coronary artery disease
  - (d) Heart failure
- 78. All are risk features for sudden cardiac death in HCM except**
- (a) Angina
  - (b) Prior cardiac arrest
  - (c) Recurrent syncope
  - (d) Hypertension on exercise
- 79. Which  $\beta$ -blockers has partial sympathetic agonistic activity?**
- (a) Atenolol
  - (b) Metoprolol
  - (c) Labetalol
  - (d) Oxprenol
- 80. All the following statement are correct regarding ACE inhibitors induced cough except**
- (a) Due to inhibition of metabolism of Brodykinin
  - (b) Respiratory diseased patient are not at increased risk
  - (c) Appear after weeks or months after therapy
  - (d) Switching to different ACE inhibitor is usually effective
- 81. All are goals of treatment of diastolic heart failure except**
- (a) Decrease HR
  - (b) Correct ischemia
  - (c) Use inotropic agents
  - (d) Reduce venous pressure
- 82. All are good after load reducers in heart failure except**
- (a) Hydralazine
  - (b) Nicorandil
  - (c) Nifedipine
  - (d) Isosorbide nitrate
- 83. All are agent preload and after load reducers in heart failure except**
- (a) Ramipril
  - (b) Losartan
  - (c) Phantoprazol
  - (d) Carvidulol

- 84. All are indication of cardiac transplantation except**
- (a) End stage ischemic CMD
  - (b) End stage idiopathic cardiomyopathy
  - (c) End stage valvular heart disease
  - (d) Markedly increased PVR > 8 wood units
- 85. All following statements regarding peripartum CMP are correct except**
- (a) Presents only with RVF
  - (b) Immunologically based disease
  - (c) Develops during last month of pregnancy and 3-6 M post patients
  - (d) Strong case can be mode for treatment by immune suppression
- 86. All  $\beta$ -blockers removed by hemodialysis except**
- (a) Atenolol
  - (b) Nadalol
  - (c) Sotalol
  - (d) Propranolol
- 87. Ventricular tachycardia is usually not found in HCM in which age group VT in HOCM is rare in which age group**
- (a) < 15 Years
  - (b) 16-30 Years
  - (c) 30-50 Years
  - (d) None of these
- 88. Dopamine acts on all receptor except**
- (a)  $\alpha_1$
  - (b) B1
  - (c) B2
  - (d) Dopaminergic
- 89. Epinephrine acts on all receptors except**
- (a) B1
  - (b) B2
  - (c)  $\alpha$
  - (d) Dopaminergic
- 90. Maximum arterial dilatation occurs with**
- (a) Epinephrine
  - (b) Nitroprusside
  - (c) Nitroglycerine
  - (d) Dopamine
- 91. Maximum isotropic effect is obtained by**
- (a) Dobutamine
  - (b) Dopamine
  - (c) Epinephrine
  - (d) Norepinephrine
- 92. Mortality is highest in which age group of HCM?**
- (a) Children
  - (b) Adult
  - (c) Adolescents
  - (d) Elderly

- 93. Which arrhythmia carries highest mortality in HCM?**
- (a) Survivors of cardiac arrest
  - (b) Atrial fibrillation
  - (c) LBBB
  - (d) Runs of VT
- 94. Which echocardiographic finding carries very poor prognosis in HCM?**
- (a) Marked LVH
  - (b) Apical type
  - (c) Mid ventricular selection
  - (d) Thinning of LV walls with cavity dilatation
- 95. Which one is vasodilatory beta-blocker?**
- (a) Metoprolol
  - (b) Bisoprolol
  - (c) Labetalol
  - (d) Atenolol
- 96. Maximum tissue ACE affinity is with which ACE inhibitor**
- (a) Captopril
  - (b) Enalapril
  - (c) Ramipril
  - (d) Perindopril
- 97. Which of the following markedly increases murmur in HOCM?**
- (a) Valsalva
  - (b) Amynitute
  - (c) Standing
  - (d) Exercise
- 98. Common ECG changes is alcoholic CMP is**
- (a) ST depression
  - (b) T wave inversion
  - (c) Peaked T wave
  - (d) Abnormal Q wave
- 99. Which  $\beta$ -blocker has membrane stabilizing property?**
- (a) Atenolol
  - (b) Propranolol
  - (c) Metoprolol
  - (d) Nadolol
- 100. Dilated cardiomyopathy occurs as on adverse effect by all following drugs except**
- (a) Interferon alpha
  - (b) Zidovudine
  - (c) Amphotericin B
  - (d) Interleskin 2
- 101. Rales trail all are correct except**
- (a) Done in heart failure
  - (b) To evaluate efficacy of adding aldactone to ACE inhibitors

- (c) Adding aldactone reduced the mortality rate
- (d) Hospitalization was not reduced

**102. Atlas study concluded all the following except**

- (a) High dose lisinopril more effective than Low dose in treatment of heart failure
- (b) High dose reduces hospitalization rate
- (c) High dose reduced all cause mortality
- (d) High dose causes no change in cardiac mortality.

**103. Which of the following auscultatory signs in primary pulmonary hypertension is always present?**

- (a) Mid systolic murmur in PA
- (b) Early diastolic murmur in PA
- (c) Pan systolic murmur in TA
- (d) Loud P2

**104. Most common symptom of primary pulmonary hypertension is**

- (a) Chest pain
- (b) Haemoptysis
- (c) Breathlessness
- (d) Syncope

**105. The initial pathologic finding in PPH is**

- (a) Medial hyperplasia of small pulmonary arteries
- (b) Intimal hyperplasia
- (c) Plexiform lesion
- (d) Occlusion of pulmonary vasculature

**106. Angina with HCM the choice of antianginal is**

- (a)  $\beta$ -blockers
- (b) Dihydropyridine Ca-blockers
- (c) Nitrates
- (d) Metabolic modulator

**107. Which cardiac disorder does not produce heart failure?**

- (a) Pericarditis
- (b) Myocarditis
- (c) Cardiomyopathy
- (d) Valvular heart disease

**108. All are hemodynamic goals of therapy of heart failure except**

- (a) PCWP 15 – 18 mm Hg
- (b) RAP 5 to 8 mm Hg
- (c) Cardiac index < 2.2 L/min/m<sup>2</sup>
- (d) Ventricular rate < 100/min

**109. CRT improves all the following except**

- (a) EF
- (b) NYHA functional class
- (c) Hospitalization for worsening heart failure
- (d) Prognosis

**110. In CRT the electrode lead is placed in all the following sites except**

- (a) RA
- (b) RV
- (c) Cardiac veins
- (d) LA

**111. Which hormone is shown to be of therapeutic value in IDC?**

- (a) Thyroxin
- (b) Growth hormones
- (c) Parathormone
- (d) None of the above

**112.  $\beta$ -blockers in HCM Causes all the following except**

- (a) Decrease symptoms
- (b) Decrease exercise gradient
- (c) Decrease sudden cardiac death
- (d) Decrease IE

**113. Verapamil in HCM cause all the following except**

- (a) Decreases symptoms
- (b) Decreases resting gradient
- (c) Decreases exercise gradient
- (d) SCR'S are unaffected

**114. All the following clinical criteria suggest bad prognosis in heart failure except**

- (a) Coronary artery disease etiology of heart failure
- (b) S3 Gallop
- (c) Low pulse pressure
- (d) Cardiomegaly

**115. All the following biochemical alteration in heart failure relates to prognosis in heart failure except**

- (a) Increase norepinephrine
- (b) Hyponatremia
- (c) Hypernatremia
- (d) Increase plasma renin

**116. All are features of beriberi heart disease except**

- (a) Edema
- (b) 3<sup>RD</sup> HS with MDM (Mid Diastolic Murmur)
- (c) Enlarged heart
- (d) Pansystolic murmur in mitral area

**117. All are good preload reducing agent in heart failure except**

- (a) Hydralazine
- (b) Prazosin
- (c) Nitroprusside
- (d) Isosorbide dinitrate

**118. All are clinical features of acute massive pulmonary embolism except**

- (a) Hypotension
- (b) Increase J-V pressure
- (c) RV S3
- (d) Narrow split S2

**119. Which of the following is not the feature of fat embolism?**

- (a) Acute right ventricular failure
- (b) Non cardiogenic pulmonary edema
- (c) Reduced cardiac output
- (d) Occurs after 2 weeks of major trauma to bones of legs and pelvis

**120. Which clinical finding is present in non obstructive cardiomyopathy?**

- (a) Sustained apex beat
- (b) Ejection SM
- (c) Pan systolic murmur
- (d) Jerky arterial pulse

- 121. All the following drugs reduce mortality in heart failure except**
- (a) ACE inhibitors
  - (b)  $\beta$ -blockers
  - (c) Spironolactone
  - (d) Inotropic drugs
- 122. All are non thrombotic causes of pulmonary embolism except**
- (a) Hydatid cyst
  - (b) Fat
  - (c) Amniotic fluid
  - (d) Calcium
- 123. All are causes of septic pulmonary embolism except**
- (a) Tran venous pacing electrodes
  - (b) Infective endocarditis of right heart
  - (c) Infection of head and neck
  - (d) Pyogenic liver abscess
- 124. In ACE inhibitor induced cough all following are correct except**
- (a) Dose independent
  - (b) May be related to bradykinin
  - (c) May be related to substance 'P'
  - (d) May need cessation of therapy
- 125. Sulthydryl group related side effects of ACE inhibitors are all except**
- (a) Neutropenia
  - (b) Rash
  - (c) Protinuria
  - (d) Hyperkalemia
- 126. Which trial showed that sudden deaths are prevented by ACE inhibitors in heart failure?**
- (a) Consensus
  - (b) V - heft II
  - (c) Solved - P
  - (d) Solved - T
- 127. Which of the following has no vasoconstriction effect?**
- (a) Isoprenaline
  - (b) Epinephrine
  - (c) Norepinchrine
  - (d) Dopamine
- 128. Which of the following inotropic agent has maximum arrhythmogenic effect?**
- (a) Epinephrine
  - (b) Norepinephrine
  - (c) Dobutamine
  - (d) Dopamine
- 129. Maximum chronotropic effect is found in**
- (a) Inoprenaline
  - (b) Norepinephrine
  - (c) Dopamine
  - (d) Dobutamine

**130. Most common cause of diuretic resistance is**

- (a) Increase salt intake
- (b) Renal perfusion pressure
- (c) Glomerular perfusion pressure
- (d) Renal dysfunction

**131. Women with heart failure exhibit all following except as complicated with more**

- (a) Less depressed EF
- (b) Better prognosis
- (c) More liberty to have underlying valvular heart disease as a cause of HF
- (d) ACE inhibitors are more effective than men

**132. Which genetic mutation is found with dilated CMP?**

- (a) Actin
- (b) Myosin
- (c) Fibrilline
- (d) All the above

**133. Commonest gene mutation in HCM is**

- (a) Beta-myosin heavy chain
- (b) Actin
- (c) Fibrillin
- (d) Elastin

**134. Genotyping is of prognostic importance in which of the following**

- (a) CAD
- (b) HCM
- (c) Marfan's syndrome
- (d) None of the above

**135. ACE inhibitor are superior to ARBS in hypertension in all following situation except**

- (a) Post myocardial infarction
- (b) High coronary disease risk
- (c) Recurrent stroke prevention
- (d) Heart failure

**136. Myocyte apoptosis is mediated by which adrenergic except?**

- (a) B1
- (b) B2
- (c)  $\alpha$ 1
- (d) None of them

- 137. Anticoagulation is indicated in heart failure in all the following except**
- (a) DHF
  - (b) Heart failure with atrial flutter
  - (c) Heart failure with dilated LV
  - (d) Heart failure with LF < 35 %
- 138. All following metal poisoning cause heart failure except**
- (a) Iron
  - (b) Lead
  - (c) Phosphorous
  - (d) Selenim
- 139. Commonest non cardiac manitestation of digoxin intoxication is**
- (a) Vision disturbance
  - (b) Nausea
  - (c) Vomiting
  - (d) Gynecomastia
- 140. Which diuretic acts are proximal tubule?**
- (a) Loop diuretic
  - (b) Thiazide
  - (c) K sparing diuretic
  - (d) Acetazolamide
- 141. All are indicators of adequate divresis in heart failure except**
- (a) Normal lugular pressure
  - (b) No liver enlargement
  - (c) No edema
  - (d) Postural hypotension
- 142. Morphine in cardiogenic pulmonary edema causes all the following except**
- (a) Decrease after load
  - (b) Decrease preload
  - (c) Causes pharmacology phlebotomy
  - (d) Inotropic
- 143. All following cardiomyopathics produce sudden cardiac death except**
- (a) Arrhythmogenic RV dysplasia
  - (b) HCM
  - (c) Amyloid CMP
  - (d) EMF
- 144. Commonest cause of heart failure (Chronic) is CAD is**
- (a) Dilated CMP
  - (b) Mitral regurgitation

- (c) VSD
- (d) LV aneurysm

**145. All are causes of passive pulmonary hypertension except**

- (a) Increase LVDP
- (b) Mitral valve obstruction
- (c) Pulmonary vein stenosis
- (d) Anomalous pulmonary venous drainage nonobstructive

**146. Use of thiazide diuretic in pregnant women may result in all the following except**

- (a) Hemolytic anemia
- (b) Thrombocytopenia
- (c) Hyponatremia
- (d) Tachycardia

**147.  $\beta$ -blockers are indicated in all following cardiac disorders except**

- (a) SA
- (b) Post myocardial infarction
- (c) HT
- (d) HCM
- (e) RCM

**148. The LV involvement in cor pulmonale is manifested by**

- (a) LVH
- (b) Low voltages in precordial lead
- (c) Prolonged QRS duration
- (d) Left atrial enlargement

**149. All the following cardiomyopathies present with LVH on echo except**

- (a) Hypertensive cardiomyopathy
- (b) Hypertrophic cardiomyopathy
- (c) Restrictive cardiomyopathy
- (d) Idiopathic dilated cardiomyopathy

**150. Which cardiomyopathy presents with asymmetrical pattern of LVH?**

- (a) Hypertensive
- (b) HCM
- (c) RCM
- (d) None of the above

- 151. Heart failure with normal sized heart is present in all the following except**
- (a) Acute myocardial infarction
  - (b) Cor pulmonale
  - (c) Constrictive pericarditis
  - (d) RCM
- 152. Which of the following is usually most reliable method of detecting cardiomyopathy?**
- (a) Clinical
  - (b) ECG
  - (c) X-ray chest
  - (d) All the above
- 153. Which is the last physical finding in heart failure to appear?**
- (a) Cardiomegaly
  - (b) Increase JVP
  - (c) Large tender liver
  - (d) Pedal edema
- 154. Therapeutic digoxin level is**
- (a) 0.8 – 1.6 mg/ml
  - (b) 1.6 – 2 mg/ml
  - (c) 2.1 – 3 mg/ml
  - (d) > 3 mg/ml
- 155. DCM is characterized by all except**
- (a) Intracardiac thrombus
  - (b) Mitral regurgitation
  - (c) Endocardial thickening
  - (d) Decrease LVEF
- 156. Myocardial mass is maximally increase in which cardiomyopathy**
- (a) DCM
  - (b) RCM
  - (c) HCM
  - (d) RV dysphasia
- 157. Endocardial plaque is a feature of**
- (a) RCM
  - (b) HCM
  - (c) DCM
  - (d) All the above
- 158. Maximum increase in end diastolic LV pressure occurs in**
- (a) DCM
  - (b) HCM
  - (c) RCM
  - (d) All the above
- 159. Edema with PND is most likely due to**
- (a) Right heart failure
  - (b) Left heart failure
  - (c) Renal failure
  - (d) Anemia and hypoproteinemia

**160. Face is usually spared in which edema?**

- (a) Renal
- (b) Anemia and hypoproteinemia
- (c) Cardiac edema
- (d) Hypothyroidism

**161. Edema confined to upper limb, neck and face suggests**

- (a) Superior vena cava obstruction
- (b) Myxoedema
- (c) Renal failure
- (d) Anemia and hypoproteinemia

**162. Which S2 character is seldom present in dilated cardiomyopathy?**

- (a) Wide split
- (b) Single S2
- (c) Reversed split
- (d) Normal split

**163. Mitral regurgitation in dilated cardiomyopathy usually has following features except**

- (a) Mild to moderate
- (b) Annular dilatation
- (c) Present in 2/3 of cases
- (d) Present in all cases

**164. All the following are pointers of Ischemic dilated cardiomyopathy except**

- (a) Angina pain
- (b) Q wave in ECG
- (c) Diabetes mellitus
- (d) Ejection fraction increases with exercise

**165. All the following are reversible causes of dilated cardiomyopathy except**

- (a) Hypocalcaemia
- (b) Iron storage disease
- (c) Pheochromocytoma
- (d) Idiopathic dilated cardiomyopathy

**166. All are hemodynamic features of restrictive cardiomyopathy except**

- (a) Increase RAP
- (b) Increase LV and RV filling pressure
- (c) RVP > LVP
- (d) Moderate to severe pulmonary hypertension

- 167. LV apex is involved in which echo type of HCM?**
- (a) Type I
  - (b) Type II
  - (c) Type III
  - (d) Type IV
- 168. Cardiac performance chiefly depends on all the following except**
- (a) Ventricular contraction
  - (b) Ventricular relaxation
  - (c) Preload
  - (d) After load
- 169. All following nutritional deficiencies may causes dilated cardiomyopathy except**
- (a) Boron
  - (b) Carnitine
  - (c) Selenium
  - (d) Vitamin E
- 170. Ventricular arrhythmia commonly occurs in following cardiomyopathy except**
- (a) Arrhythmogenic RV dysplasia
  - (b) Restrictive cardiomyopathy
  - (c) Dilated cardiomyopathy
  - (d) Hypertrophic cardiomyopathy
- 171. EUROPA Trial (2003) major points were except**
- (a) Perindopril vs placebo
  - (b) In CAD with preserved left ventricular function
  - (c) 20% risk reduction on cardiovascular mortality
  - (d) No effect on total mortality
- 172. In hope (2003) trial, the major point were all except**
- (a) Patients at high cardiovascular risk were included
  - (b) 220% risk reduction from cardiovascular cause
  - (c) Ramipril vs placebo
  - (d) No significant change in total mortality
- 173. Diastolic heart failure has all the following features except**
- (a) End-diastolic pressure-volume altered

- (b) Impaired LV inotropic state
- (c) Atrial booster function impaired
- (d) Relaxation indices impaired

**174. Which cause of pulmonary hypertension is associated with left atrial enlargement on ECG?**

- (a) Primary pulmonary hypertension
- (b) Passive pulmonary hypertension caused by mitral stenosis
- (c) Pulmonary veno occlusive disease
- (d) Pulmonary embolism

**175. Pedal edema in chronic cor pulmonale is due to all except**

- (a) Increase systemic venous pressure
- (b) Acidosis
- (c) Hypoxemia
- (d) Hyper carbic

**176. LV dysfunction in cor pulmonale is due to**

- (a) Associated CAD
- (b) Associated HT
- (c) Dilated hypertensive RV reduces LV compliance
- (d) All the above

**177. All the following trials related to LV dysfunction demonstrated decrease in over all mortality except**

- (a) Consensus
- (b) Solvd
- (c) SAVE
- (d) Solvd-Prevention arm

**178. All are 3<sup>rd</sup> generation  $\beta$ -blockers except**

- (a) Carvedilol
- (b) Labetalol
- (c) Bucindalol
- (d) Bisoprolol

**179. Which chromosome is not involved in HCM?**

- (a) Chromosome 1
- (b) Chromosome 14
- (c) Chromosome 19
- (d) Chromosome 4

**180. Commonest variety of HCM is**

- (a) ASH
- (b) Apical
- (c) Mid ventricular
- (d) Symmetrical

- 181. Which is the dominant mechanism of diastolic heart failure in HCM?**
- (a) Decrease relaxation
  - (b) Chamber stiffness
  - (c) Both of the above
  - (d) None of these
- 182. Chamber stiffness in HCM is due to which of the following?**
- (a) Increase muscle mass
  - (b) Decrease volume
  - (c) Increase muscle stiffness
  - (d) All of the above
- 183. Decrease relaxation in HCM is due to which of the following?**
- (a) Increase contraction load
  - (b) Decrease relaxation load
  - (c) Decrease inactivation
  - (d) All of the above
- 184. All following may occur in HCM except**
- (a) Diastolic heart failure
  - (b) Atrial fibrillation
  - (c) Syncope
  - (d) Early pedal edema
- 185. Predominant hemodynamic abnormality in HCM is**
- (a) Systolic dysfunction
  - (b) Diastolic dysfunction
  - (c) LVOT obstruction
  - (d) Mitral regurgitation
- 186. Which drug may reduce sudden cardiac death in HCM?**
- (a)  $\beta$ -blocker
  - (b) Ca-blocker
  - (c) Amiodarone
  - (d) Disopyramide
- 187. Central cyanosis with clubbing occurs in all except**
- (a) Right–Left shunt
  - (b) Pulmonary disease
  - (c) Heart failure
  - (d) All the above
- 188. All the following statements are true regarding EEITE study except**
- (a) Comparison of losartan vs captopril in heart failure (symptomatic)

- (b) In elderly patients
  - (c) Losartan was superior than captopril (mortality and hospitalization rate)
  - (d) Side effects were more with losartan
- 189. Which of the dilated cardiomyopathy present as acute onset?**
- (a) Cobalt cardiomyopathy
  - (b) Alcohol cardiomyopathy
  - (c) Peripartum cardiomyopathy
  - (d) None of the above
- 190. Which of the following Dilated cardiomyopathy present initially with hypertension?**
- (a) Idiopathic
  - (b) Peripartum
  - (c) Alcoholic
  - (d) None of the above
- 191. Anthracycline cardiomyopathy has all the following features except**
- (a) Usually reversible on stoppage of drug
  - (b) Usually irreversible
  - (c) Non progressive
  - (d) All of the above
- 192. Which feature of heart failure is highest predictive accuracy?**
- (a) Paroxysmal nocturnal dyspnea
  - (b) S3
  - (c) Basal rales
  - (d) Tachycardia
- 193. Which feature of heart failure has least predictive accuracy?**
- (a) Orthopnea
  - (b) Dyspnea
  - (c) Edema
  - (d) Rales
- 194. Following are the criteria resynenronization therapy except**
- (a) Repeated hospitalization with no known precipitating factor and with full medical TF
  - (b) EF < 30 % class III IV NYHA
  - (c) LBBB QRS demotion > 130 ins or > 150 ins
  - (d) Sims node dysfunction

- 195. Possible benefits of cardiac resynchronization therapy are all following except**
- (a) Reduced rate of hospitalization
  - (b) Modest mortality reduction
  - (c) Inpranes exe tolerance
  - (d) Sudden cardiac death are reduced
- 196. All are correct statement regarding carvedilal except**
- (a) a1 & Beta-blockers
  - (b) Antioxidant
  - (c) Anti protiferative
  - (d) Increase endothelial levels
- 197. Which is the best procedemia for diagnosis of doxorebicum induced cardiomyopathy?**
- (a) Echo
  - (b) ECG
  - (c) Angiocardiography with radiolabeled antimyosin antibody
  - (d) Endomyocardial biopsy
- 198. All are ECG features of poor prognosis in idiopathic dilated CMP except**
- (a) Atrial fibrillation
  - (b) LBBB
  - (c) VT
  - (d) RBBB
- 199. All are poor biochemical features predictors in dileded CMP except**
- (a) Increase adranative
  - (b) Increase noradremaline
  - (c) Increase angiolesion
  - (d) None of the above
- 200. Which valvular heart disease does not cause dilated cardiomyopathy?**
- (a) Mitral regurgitation
  - (b) Aortic regurgitation
  - (c) Aortic stenosis
  - (d) Mitral stenosis
- 201. All following drugs cause dilated cardiomyopathy except**
- (a) Anthracyclins
  - (b) Cyclophosphamide
  - (c) Chloroquine
  - (d) Metanidazole

- 202. All following are risk factors for Doxorubicin induced cardiomyopathy except**
- (a) Age > 70 years
  - (b) Faculae SVF
  - (c) High connotative dose
  - (d) DM
- 203. Acute or subacute cardiotoxicity of anthracyclin therapy present with**
- (a) Dysplasia
  - (b) Cardiomegaly
  - (c) S3
  - (d) ST/T changes in ECG
- 204. Anemia in heart failure is due to all except**
- (a) Braun more no superior
  - (b) Poor installs
  - (c) Renal dysfunction
  - (d) Haemolysis
- 205. Commonest echocardiography finding in acute myocarditis is**
- (a) Pericarditis effusion
  - (b) Cardiomegaly
  - (c) Global hypokinesia
  - (d) Impaired diastolic dysfunction
- 206. Fluid restriction in heart failure is usually indicated in all the following situation except**
- (a) Refractory fluid retention
  - (b) Significant hyponatremia
  - (c) Renal insufficiency
  - (d) EF < 35 %
- 207. All the following  $\beta$ -blockers may be used in heart failure except**
- (a) Bisoprolol
  - (b) Metoprolol
  - (c) Carvedilol
  - (d) Atenolol
- 208. When  $\beta$ -blockers are indicated in HF in all following situation except**
- (a) Class II or III with symptoms
  - (b) A symptomatic patients with decrease EF
  - (c) Stable class IV without fluid retention
  - (d) All class IV patients

- 209. Incidence of sudden cardiac death in heart failure is**
- (a) 10 % (b) 20 %  
(c) 30 % (d) 50 %
- 210. Which  $\beta$ -blockers has maximum reduction in mortality in heart failure?**
- (a) Metoprolal (b) Bisoprolal  
(c) Carvedilal (d) Bucindolal
- 211. Which is most important risk factors for sudden cardiac death in HCM?**
- (a) LVH (b) F/H of SCD  
(c) NSVT on hotter (d) Syncope
- 212. All following act as cardioprotective for boxorubiun cardiotoxicity except**
- (a) Prolonged continuous infusion of drug  
(b) Iron chelator  
(c) VHE (d)  $\beta$ -blockers
- 213. All following are electrically determined disorder which can present as HCM except?**
- (a) Friederich's ataxia  
(b) Noonan syndrome  
(c) Down syndrome  
(d) Ganadal dyxgenesis
- 214. Reversible HCM may occur in young infarcts with the use of which drug?**
- (a) Antibiotics (b) Steroids  
(c) Both (a) and (b) (d) None of the above
- 215. All are common cause of RCM except**
- (a) Amyloidosis  
(b) Idiopathic  
(c) Tropical endomyocardial fibrosis  
(d) Sclerodema
- 216. Neonatal arrdiomyopathy in newborn from diabetic muller has all following feature except**
- (a) It is HCM  
(b) Induced by material hormones  
(c) Induced by material hematological and/or metabolic disturbance  
(d) It is irreversible

**217. Dynamic cardiomyoplasty in heart failure results in all the following except**

- (a) Symptomatic improvement in class III patients
- (b) No significant effect in haemodynamic
- (c) No significant effects on physical sign
- (d) Mortality is reduced

**218. Ventricular assist devices in heart failure resents in**

- (a) Sustain EF
- (b) May reverse activation of RAAS
- (c) May reverse remodeling
- (d) Improves long term mortality

**219. VRT in heart failure cause what changes in QRS?**

- (a) Duration increase farther
- (b) Duration decrease from baseline
- (c) Duration remains Same
- (d) All the above

**220. How the weight loss in heart failure is best managed?**

- (a) High caloric diet
- (b) Appetite stimulant
- (c) Growth hormone
- (d) Physical training and regular exercise

**221. All following are risk of ACE inhibitors in heart failure except**

- (a) 1<sup>st</sup> dose hypotensive in patients receiving diameters
- (b) May impair renal function
- (c) Hyperkalemia
- (d) All the above

**222. Which NYHA class ryamine heart failure therapy by ACE inhibitor?**

- (a) Class I
- (b) Class II
- (c) Class III & IV
- (d) All the above classes

**223. All following beneficial effects ACE inhibitors in heart failure except**

- (a) Improve haemodynamic
- (b) Anti thrombotic
- (c) Anti proliferative
- (d) All the above

- 224. Commonest cause of pulmonary hypertension is**
- (a) Passive
  - (b) Reactive
  - (c) Hyperbemic
  - (d) Ostrichive and abdicative
- 225. Most common cause of cor pulmonale is**
- (a) COPD
  - (b) Pulmonary embolism
  - (c) Pneumotharax
  - (d) Obstructive sleep apnea
- 226. Tako-Tsubo cardiomyopathy is characterized by all the following except**
- (a) Often occurs in females > 60 years
  - (b) ECG evidence of anterior myocardial infarction (ST elevation + Q waves)
  - (c) Normal Epicardial Coronary Arteries
  - (d) Cardiac Enzymes Markedly Elevated
- 227. All the following are ST elevated cardiomyopathy except**
- (a) Coronary artery disease
  - (b) Chemotherapy induced
  - (c) Tako-Tsubo cardiomyopathy
  - (d) Peripartum cardiomyopathy
- 228. Which dilated cardiomyopathy has best prognosis?**
- (a) Alcoholic
  - (b) Peripartum
  - (c) Familial
  - (d) Idiopathic
- 229. Tachycardia induced cardiomyopathy occurs with all following tachycardia except**
- (a) AF with fast VR
  - (b) Atrial flutter
  - (c) Ectopic atrial tachycardia
  - (d) Sinus tachycardia
- 230. Hypertrophic cardiomyopathic type changes occurs in all the following except**
- (a) Hyperparathyroidism
  - (b) Hyperthyroidism
  - (c) Hypothyroidism
  - (d) SLE

- 231. ECG is most reliable for diagnosis of pulmonary hypertension of which etiology**
- (a) Alveolar hypoventilation
  - (b) COPD
  - (c) Thrombo embolic
  - (d) Left-right shunt
- 232. In which type of pulmonary hypertension vasodilators are cautiously used?**
- (a) LVF
  - (b) COPD
  - (c) Chronic thrombo embolic
  - (d) Left-right shunt with PH
- 233. Most sensitive and specific marker for alcohol abuse in alcoholic cardiomyopathy is**
- (a) g Glutamyl transferase
  - (b) MCV
  - (c) Carbohydrate dependent transferrin
  - (d) All of the above
- 234. Which type of cardiomyopathy occurs in neonates of diabetic mother?**
- (a) DCM
  - (b) RCM
  - (c) HOCM
  - (d) Any of the above
- 235. Best drug for post infarct CHF prevention is**
- (a) Nitrates
  - (b)  $\beta$ -blockers
  - (c) Ca-blockers
  - (d) ACE Inhibitors
- 236. Cardiac synchronizing therapy (CST) is indicated in heart failure**
- (a) NYHA class II heart failure
  - (b) NYHA class III - IV heart failure
  - (c) NYHA class III - IV with narrow QRS complex
  - (d) NYHA class III - IV with LBBB
- 237. Ultrafiltration in heart failure is done when**
- (a) NYHA Class III heart failure
  - (b) NYHA Class IV heart failure
  - (c) NYHA Class IV heart failure with diuretic resistant edema
  - (d) Heart failure with severe renal function impairment

**238. Diuretics of choice in severe renal insufficiency is**

- (a) Thiazides
- (b) K sparing diuretics
- (c) Frusemide
- (d) Any of the above

**239. Diagnosis of dilated cardiomyopathy due to CAD is favoured in all the following except**

- (a) Coronary calcification
- (b) Large thallium defect
- (c) Exercise induced fall in EF
- (d) Exercise induced no fall in EF

**240. Most common cause of heart failure is**

- (a) Dilated cardiomyopathy
- (b) Pericardial disease
- (c) Congenital heart disease
- (d) Arrhythmias

**241. All the following points favour diagnosis of dilated cardiomyopathy due to coronary artery disease except**

- (a) History of chest pain and prior infarctions
- (b) Q waves on ECG
- (c) Diabetes mellitus
- (d) Atrial fibrillation

**242. Most common cause of diastolic heart failure is**

- (a) Hypertrophic cardiomyopathy
- (b) Myocardial ischemia
- (c) Hypertension
- (d) Amyloid heart disease

**243. High output failure has all the following features except**

- (a) warm Skin
- (b) Bounding pulse
- (c) Cardiac index is lower than normal
- (d) Arterial-mixed venous  $O_2$  difference exceeds than low output failure

**244. Most common site of myocardial disarray in HCM.**

- (a) Left ventricular myocardium
- (b) Atrial myocardium
- (c) Right ventricular myocardium

(d) IVS (Interventricular septum)

**245. Pathologic hall mark of HCM is**

- (a) Myocardial disarray
- (b) Myocyte hypertrophy
- (c) Interstitial fibrosis
- (d) Medial thickening of intramural coronary arteries

**246. Which  $\beta$ -blockers has intrinsic sympathomimetic activity?**

- (a) Propranolol
- (b) Pindolol
- (c) Metoprolol
- (d) All of the above

**247. Which is cardio selective  $\beta$ -blockers?**

- (a) Metoprolol
- (b) Propranolol
- (c) Pindolal
- (d) Timolal

**248. Which Ca-blocker is used in cardiac transplant patients prophylactically for coronary arterioma development?**

- (a) Verapamil
- (b) Diltiazem
- (c) Nifedipine
- (d) Any of the above

**249. The greatest risk of ACE inhibitors is in which trimester of pregnancy?**

- (a) Ist trimester
- (b) IInd, IIIrd trimester
- (c) Post delivery

**250. Which Ca-blockers is contra indicated in HOCM with resting obstruction?**

- (a) Varapamil
- (b) Diltazen
- (c) Nifedipine
- (d) None of these

**251. All following qenohormonal changes occurs in heart failure except**

- (a) Upregulation of beta adrenergic receptors
- (b) Up regulation of atrial notriuretic peptide
- (c) Incresed endothlin-I
- (d) Increased tumor necrosis factor

**252. Deadly lipid quartite causist of all the following except**

- (a) High TG
- (b) Normal LDL-C
- (c) Decrease HDL-C
- (d) Increase LP

**253. When pulses alternance disappears?**

- (a) Improvement of heart failure
- (b) Worsening of heart failure
- (c) Both the above
- (d) None of the above

**254. All following are mechanisms of pulsus alterans except**

- (a) Localized electromechanical dissociation
- (b) Alteration in diastolic volume
- (c) Alteration in relaxation
- (d) Sinus tachycardia

**255. All following are haemodynamic features of heart failure except**

- (a) Elevated filling pressures
- (b) Reduced cardiac output
- (c) Decreased pulmonary vascular resistance
- (d) Increased systemic vascular resistance

**256. Which  $\beta$ -blockers has an antioxidant property and used in heart failure?**

- (a) Nebivolol
- (b) Metoprolol
- (c) Bisoprolol
- (d) Carvedilol

**257.  $\beta$ -blocker of choice in treatment of systolic left ventricular dysfunction**

- (a) Atenolol
- (b) Metoprolol
- (c) Bisoprolol
- (d) Carvedilol

**258. All following  $\beta$ -blockers usually reduce mortality in heart failure except**

- (a) Carvedilol
- (b) Metoprolol
- (c) Bisoprolol
- (d) Propranolol

**259. Which of the following  $\beta$ -blockers reduces mortality in heart failure?**

- (a) Nebivolol
- (b) Propranolol
- (c) Atenolol
- (d) None of the above

**260. DHF is characterized by all the following except**

- (a) More common in females
- (b) More common in elderly
- (c) More common in patients with diabetes mellitus
- (d) More common in coronary artery disease

- 261. DHF patients have higher prevalence of all the following than SHF except**
- (a) Atrial fibrillation
  - (b) Hypertension
  - (c) Renal insufficiency
  - (d) Poor prognosis
- 262. DHF are less responsive to all the following except**
- (a) ACE inhibitors
  - (b) Digoxin
  - (c)  $\beta$ -blockers
  - (d) Ca-blockers
- 263. Carvedilol affects remodelling process by all following mechanism except**
- (a) Cardiac antiadrenergic
  - (b) Antioxidant
  - (c) Antiischemic
  - (d) Bradykin-in / NO mediated
- 264. ACE Inhibitors affect remodelling process by all following mechanism except**
- (a) Bradykin-in / NO
  - (b) RAS activation modulation
  - (c) SNS modulation
  - (d)  $\alpha$ 1 blockade
- 265. Amrinone affects which cell component of blood**
- (a) RBC
  - (b) WBC
  - (c) Platelets
  - (d) All of the above
- 266. Which ARB does not causes diarrhoea?**
- (a) Losartan
  - (b) Valsartan
  - (c) Irbesartan
  - (d) Telmesartan
- 267. Which ARB causes fatigue?**
- (a) Losartan
  - (b) Irbesartan
  - (c) Candesartan
  - (d) Telmesartan
- 268. Which ARB has maximum AT1 receptor affinity?**
- (a) Valsartan
  - (b) Losartan
  - (c) Irbesartan
  - (d) Olmesartan
- 269. Which ARB has maximum trough peak ratio?**
- (a) Telmesartan
  - (b) Losartan
  - (c) Irbesartan
  - (d) Valsartan

- 270. All the following ARB's can causes cough except**
- (a) Losartan (b) Irbesartan  
(c) Eprosartan (d) Telmesartan
- 271. Which ARB may causes viral infection?**
- (a) Losartan (b) Valsartan  
(c) Telmesartan (d) Candesartan
- 272. Which of the following  $\beta$ -blockers is not lipid soluble?**
- (a) Atenolol (b) Metoprolol  
(c) Nebivolol (d) Propranolol
- 273. Which  $\beta$ -blockers has highest ISA?**
- (a) Pindolol (b) Penbatalol  
(c) Acebatulol (d) Celeprolol
- 274. Which  $\beta$ -blockers has highest B1 selectivity?**
- (a) Acebutalol (b) Atenolol  
(c) Bisoprolol (d) Metoprolol
- 275. Which  $\beta$ -blockers has  $\alpha$ -blockers Activity?**
- (a) Nebivolol (b) Carvidilol  
(c) Metoprolol (d) Bisoprolol
- 276. Excessive tachycardia is found in which type of dilated cardiomyopathy?**
- (a) Idiopathic  
(b) Periparturum  
(c) Alcoholic CMP  
(d) Anthracyclone induced CMP
- 277. Retadine absence of hypertrophy and dilation of LV is found in which dilated CMP?**
- (a) Idiopathic  
(b) Peripatum  
(c) Alcoholic CMP  
(d) Anthracycline induced CMP
- 278. OS in mitral stenosis is best heard in which location?**
- (a) Apex  
(b) Base  
(c) Lower left sternal border  
(d) Midway between left sternal border and apex

- 279. Which of the following is not found in severe mitral stenosis?**
- (a) Loud S1 (b) OS  
(c) MDM (d) S3
- 280. All are clinical predictors of poor prognosis in heart failure except?**
- (a) NYHA IV (b) Signs of RHF  
(c) Signs of LHF (d) S3 LV
- 281. All are electrocardiographic predictors of poor prognosis in heart failure except**
- (a) Atrial fibrillation (b) LBBB  
(c) VT (d) PAT
- 282. All are hemodynamic predictors of poor prognosis in heart failure except**
- (a) PCWP > 20 mmHg  
(b) Cardiac index < 2.5 L/min/m<sup>2</sup> BSA  
(c) Low mean arterial pressure  
(d) Sinus bradycardia
- 283. All are poor predictor on echocardiography in heart failure except**
- (a) Low EF  
(b) Markedly increase LVEDD  
(c) Diffuse wall motion abnormality  
(d) Increased ventricular mass/volume ratio
- 284. Which Beta-blocker is avoided during lactation?**
- (a) Atenolol (b) Metoprolol  
(c) Propranolol (d) All of the above
- 285. All the following drugs used in heart failure have arrhythmogenic potential except**
- (a) Digoxin (b) Diuretics  
(c) Anti arrhythmic (d)  $\beta$ -blockers
- 286. Heart failure may causes anemia by following ways except**
- (a) Aspirin intake  
(b) Malabsorption  
(c) Cytokine induced BM suppression  
(d) Diuretics therapy

**287. Most common form of cardiomyopathy is**

- (a) Dilated
- (b) Restrictive
- (c) Hypertrophic nonobstructive
- (d) Hypertrophic obstructive

**288. Ischemic dilated cardiomyopathy most commonly occurs in**

- (a) Following anterior myocardial infarction
- (b) Following posterior myocardial infarction
- (c) Following inferior myocardial infarction
- (d) Following superior myocardial infarction

**289. Most powerful predictor of prognosis in heart failure is**

- (a) Clinical severity of heart failure
- (b) Underlying heart disease
- (c) Persistence of compensatory mechanisms
- (d) EF

**290. Most common form of dilated cardiomyopathy is**

- (a) Ischaemic
- (b) Idiopathic
- (c) Nutritional
- (d) Metabolic

**291. Hypertensive cardiomyopathy presents as all the following types except**

- (a) Dilated
- (b) Restrictive
- (c) Unclassified
- (d) Hypertrophic

**292. All the following are characteristic finding on microscopy in idiopathic dilated cardiomyopathy except**

- (a) Marked myocyte hypertrophy
- (b) Myocytes with small nuclei
- (c) Marked interstitial fibrosis
- (d) Myocytes atrophy

**293. Which of the following dilated cardiomyopathy has bad prognosis than others?**

- (a) Idiopathic
- (b) Ischemic
- (c) Peripartum
- (d) Hypocalcemic

**294. In IDC following HLA antigen are increased except**

- (a) HLA - A2
- (b) HLA - DR4
- (c) HLA - DQ4
- (d) HLA - DRw4

**295. Which  $\beta$ -blocker is preferred in pregnancy?**

- (a) Propranolol
- (b) Atenolol
- (c) Metoprolol
- (d) Any of above

**296. Pathognomonic sign of complete endocardial cushion defect is**

- (a) CHB
- (b) Holosystolic murmur of mitral regurgitation
- (c) Holosystolic murmur of VSD
- (d) Goose neck deformity on selective L-V angiography

**297. Persistent symptoms after surgery in constrictive pericarditis are due to all the following except**

- (a) Inadequate operation
- (b) Recurrence of constriction
- (c) Diastolic dysfunction
- (d) Arrhythmias

**298. All following are risk predictors in hypertrophic cardiomyopathy except**

- (a) Young person
- (b) History of syncope
- (c) Family history of sudden cardiac death
- (d) Exercise induced hypertension

**299. Which dilated cardiomyopathy has best prognosis?**

- (a) Idiopathic
- (b) Alcoholic
- (c) Peripartum
- (d) Ischemic

**300. In which dilated cardiomyopathy atrial fibrillation is rare?**

- (a) Ischemic
- (b) Hypertensive
- (c) Peripartum
- (d) Alcoholic

**301. Most cases of high altitude pulmonary edema occurs by rapid ascent to which altitude**

- (a) 7000–8000 feet
- (b) 8000–9000 feet
- (c) 9000–10000 feet
- (d) > 10,000 feet

**302. Which is best tool to diagnose right ventricular dysplasia?**

- (a) Echo
- (b) ECG
- (c) Clinical
- (d) MRI

- 303. Which  $\beta$ -blocker is recommended in open angle glaucoma?**
- (a) Propranolol (b) Bisoprolol  
(c) Timolol (d) Atenolol
- 304. Which  $\beta$ -blocker used to prevent migraine?**
- (a) Atenolol (b) Metoprolol  
(c) Carteolol (d) Propranolol
- 305. Which is best drug for overdose of Beta-blockers?**
- (a) Atropine (b) Dobutamine  
(c) Isoprenaline (d) Glucagons
- 306. Low voltage on ECG with marked hypertrophy of myocardium is found in**
- (a) Dilated cardiomyopathy  
(b) Hypertrophic cardiomyopathy  
(c) Amyloid cardiomyopathy  
(d) None of the above
- 307. Chloroquine commonly causes which type of cardiomyopathy.**
- (a) Dilated (b) Restrictive  
(c) Hypertrophic (d) None of the above
- 308. Cardiac failure in anemia without underlying disease when hemoglobin is reduced to**
- (a) < 10 G% (b) < 8 G%  
(c) < 7 G% (d) < 5 G%
- 309. All following causes of heart failure are potentially reversible except**
- (a) Ischemic  
(b) Lymphocytic myocarditis  
(c) Tachycardia induced CMD  
(d) Idiopathic dilated CMP
- 310. Dopaminergic activity is found with which sympathomimetic amine?**
- (a) Norepinephrine (b) Epinephrine  
(c) Dobutamine (d) Dopamine
- 311. All following drugs produce cardiomyopathy except**

- (a) Doxorubicin      (b) Daunorubicin  
(c) Epirubicin      (d) 5-Fluorouracil
- 312. Which inotropic agent does not require dose adjustment in renal failure (GFR < 10) except?**
- (a) Amrinone      (b) Dobutamine  
(c) Milrinone      (d) All of the above
- 313. All following drugs need no adjustment of dose in renal failure (GFR < 10) except**
- (a) Calcium blocker      (b) Clonidine  
(c) Captopril      (d) Amiodarone
- 314. Which cardiac contractile protein has thick filament?**
- (a) Myosin      (b) Actin  
(c) Tropomyosin      (d) Troponin
- 315. Which type of amyloid disease does not involve heart?**
- (a) Primary cryptogenic  
(b) Non hodgkins lymphoma  
(c) Multiple myeloma  
(d) Reactive secondary to chronic disease
- 316. All following drugs produce cardiomyopathy except**
- (a) Doxorubicin      (b) Interleukin II  
(c) Interferon  $2\alpha$       (d) Ca-blockers
- 317. Most common cause of pleural effusion in heart failure**
- (a) RVF      (b) LVF  
(c) Ventricular failure      (d) All the above
- 318. Most frequent site of pleural effusion in heart failure is**
- (a) Right sided      (b) Left sided  
(c) Both sided      (d) None of these
- 319. Which is stronger indication in predicting CV mortality?**
- (a) Pulse pressure  
(b) Systolic blood pressure  
(c) Diastolic blood pressure  
(d) Mean arterial pressure

- 320. If ST and T wall changes are found in ECG in HF it indicates usually all the following except**
- (a) Ischaemia
  - (b) Arrhythmogenic RV cardiomyopathy
  - (c) Hypertrophic CMP
  - (d) Electrolyte disturbance
- 321. If LVH is found in heart failure in ECG it frequency indicates all except**
- (a) Hypertension
  - (b) Aortic stenosis
  - (c) HCM
  - (d) Advanced stage of DCMP
- 322. If ECG show in heart failure < B3 + RAD it indicates**
- (a) HCM
  - (b) RCM
  - (c) AV disease
  - (d) Advanced DCM
- 323. RBBB in heart failure indicates**
- (a) Mitral stenosis
  - (b) Aortic stenosis
  - (c) VSD
  - (d) Corpulmonale
- 324. Heart failure with low voltage complex indicator all the following except**
- (a) Pericardial disease
  - (b) Hypothyroidism
  - (c) Amyloidosis
  - (d) Hypertension
- 325. Which diuretic takes shortest time to reach the peak effect when given orally in hours?**
- (a) Chlorthiazide
  - (b) Metolazone
  - (c) Triamterine
  - (d) Amiloride
- 326. Which diuretic has maximum duration of action?**
- (a) Spironolactone
  - (b) Acetazolamide
  - (c) Chlorothiazide
  - (d) Hydrochlorothiazide
- 327. Which diuretic acts on proximal tubule?**
- (a) Thiazide
  - (b) Acetazolamide
  - (c) Ethacrynic acid
  - (d) Triamterene
- 328. Which diuretic excretes  $\text{HCO}_3^-$ ?**
- (a) Acetazolamide
  - (b) Chlorothiazide
  - (c) Amiloride
  - (d) Mercuride

**329. Which diuretic does not cause loss of H<sup>+</sup>?**

- (a) Thiazides
- (b) Frusemide
- (c) Amiloride
- (d) Acetazolamide

**330. All are pharmacologic features of labetalol except**

- (a) Beta-blocker
- (b)  $\beta$ -blocker
- (c) Predominant route of elimination is kidney
- (d) Noncardioselective

**331. Which  $\beta$ -blocker does not need the dose adjustment in renal failure.**

- (a) Propranolol
- (b) Nadolol
- (c) Atenolol
- (d) Esmolol

**332. All following increase coronary/artery circulation/catheterial airtaction except**

- (a) Nitrates
- (b) Nifedipine
- (c) Verapamil
- (d) Diltiazem

**333. Preload is maximally decreased by**

- (a) Nitrates
- (b) Nifedipine
- (c) Verapamil
- (d) Diltiazem

**334. All following are arterial dilators except**

- (a) Hydralazine
- (b) Minoxidil
- (c) Amiodarone
- (d) Prazocin

**335. Anticoagulation is indicated in heart failure in all the following except**

- (a) HF with EF < 35 %
- (b) HF with EF < 40 %
- (c) HF with AF
- (d) HF with massive LV enlargement

**336. Afterload is maximally decreased by**

- (a) Nitrates
- (b) Nifedipine
- (c) Diltiazem
- (d) Verapamil

**337. HR is maximally decreased by**

- (a) Nifedipine
- (b) Verapamil
- (c) Diltiazem
- (d)  $\beta$ -blockers with ISA property

- 338. All are causes of high output failure except**
- (a) Anaemia
  - (b) Hypothyroidism
  - (c) Beriberi
  - (d) Liver cirrhosis
- 339. All following are mechanical alteration in myocardium in heart failure except**
- (a) Aligned inseries
  - (b) Decrease in velocity of shortening
  - (c) Decrease in force development
  - (d) Decrease in maximum rate of force development
- 340. Endocrinal toxicity of digoxin include all except**
- (a) Gynecomastica
  - (b) Enlargement of breast in females
  - (c) DM
- 341. Which receptors act by inhibiting adenyl cyclase?**
- (a)  $\alpha 1$
  - (b)  $\alpha 2$
  - (c)  $\beta 1$
  - (d)  $\beta 2$
- 342. Which chamber of heart has  $\beta$ -receptors?**
- (a) Left atrium
  - (b) Right ventricle
  - (c) Left ventricle
  - (d) All the above
- 343. Cardiac muscle has all following features except**
- (a) Mitochondria are present
  - (b) No oxygen debt
  - (c) No tetanus
  - (d) Intercalated disks absent
- 344. Go proteins in cardiovascular tissues are found in**
- (a)  $\alpha$ -receptor
  - (b)  $\beta$ -receptors
  - (c) Muscarinic receptor
  - (d)  $\alpha 1$  receptors
- 345. All are pathophysiologic mechanism of heart failure except**
- (a) Volume overload
  - (b) Presence overload
  - (c) Loss of muscle
  - (d) Ventricular extra systole

- 346. All are pathophysiologic mechanism of heart failure in CAD except**
- (a) Myocardial infarction
  - (b) Aneurysm
  - (c) Mitral regurgitation
  - (d) Sinus tachycardia
- 347. All following are true cause of heart failure except**
- (a) Cardiac tamponade
  - (b) Coronary artery disease
  - (c) Valvular heart disease
  - (d) Cardio myopathy
- 348. Which  $\beta$ -blocker has highest ISA activity?**
- (a) Propranolol
  - (b) Oxprenolol
  - (c) Pindolol
  - (d) Acebutolol
- 349. Which ion has highest cardiac ventricular concentration?**
- (a)  $\text{Na}^+$
  - (b)  $\text{K}^+$
  - (c)  $\text{Ca}^{++}$
  - (d)  $\text{Cl}^-$
- 350. Which ion has highest cardiac extracellular concentration?**
- (a)  $\text{Na}^+$
  - (b)  $\text{K}^+$
  - (c)  $\text{Ca}^{++}$
  - (d)  $\text{Cl}^-$
- 351. Which is early sign of heart failure in infant poor feeding with fatigue and?**
- (a) Dyspnea
  - (b) Enlarged tender liver
  - (c) Raised JVP
  - (d) Puffy eyelids
- 352. Which sign of heart failure is not found in with heart failure infants?**
- (a) Distended neck veins
  - (b) Enlarged liver
  - (c) Pedal edema
  - (d) Tachycardia
- 353. All following present sudden cardiac death in heart failure except**
- (a)  $\beta$ -blocker
  - (b) Aldosterone antagonists
  - (c) ACE inhibitors
  - (d) Aspirin

**354. Diuretics are**

- (a) Antihypertensive
- (b) Anti-ischemic
- (c) Cardiovascular protection
- (d) All of the above

**355. Which type of HCM has been prognosis?**

- (a) Apical
- (b) ASM
- (c) HCM
- (d) Mid ventricular

**356. Most significant cardiovascular lesion in pseudoxanthoma elasticum is**

- (a) Increase in coronary artery disease
- (b) MVP
- (c) Endocardial fibroelastosis

**357. ACE inhibitors have all the following features except**

- (a) Increase bradykinin
- (b) Cause cough
- (c) Angioedema
- (d) Hyperkalemia in renal failure unlikely

**358. What is the most often final diagnosis in unexplained cardiomyopathy?**

- (a) Idiopathic dilated CMP
- (b) Myocarditis
- (c) Peripartum cardiomyopathy
- (d) Hypertensive cardiomyopathy

**359. All following are important mechanism in Remodelling process by carvedilol except**

- (a) Cardiac adrenergic effect
- (b) Antioxidant
- (c) Anti-ischemia
- (d) Bradykinin/nitric oxide

**360. All following are important mechanism in remodeling process by ACE inhibitor except**

- (a) Bradykinin/nitric oxide
- (b) Antioxidant
- (c) SNS modulation
- (d) HR reduction

**361. Which is least common side effect with enalapril?**

- (a) Cough
  - (b) Angioedema
  - (c) Renal improvement
  - (d) Hypertension
- 362. At what level of RVSP, RV failure is inevitable in pulmonary hypertension?**
- (a) 30–50 mm Hg systolic
  - (b) 60–70 mm Hg systolic
  - (c) 70–80 mm Hg systolic
  - (d) When RVSP reaches to systemic systolic pressure
- 363. Atrial septo in severe RV overload in pulmonary hypertension results in following benefit except**
- (a) Improve exercise tolerance
  - (b) Improve RVF
  - (c) Lessen syncope
  - (d) Worsen hypoxemia
- 364. Most common site for infective endocarditis in hypertrophic obstructive cardiomyopathy is**
- (a) IVS
  - (b) AML
  - (c) PML
  - (d) Papillary muscle
- 365. Which cardiomyopathy demonstrate low voltage in ECG despite hypertrophy on Echo?**
- (a) Post partum
  - (b) Hypertensive
  - (c) Amyloidosis
  - (d) Haemochromatosis
- 366. All following  $\beta$ -blockers have been used in treatment of heart failure except**
- (a) Metoprolol
  - (b) Atenolol
  - (c) Bisoprolol
  - (d) Carvidilol
- 367. Most common cardiomyopathy is**
- (a) Dilated
  - (b) Hypertrophic
  - (c) Restrictive
  - (d) ARV dysplasia
- 368. Common causes of dilated cardiomyopathy is**
- (a) Idiopathic
  - (b) Myocarditis
  - (c) Hypertensive
  - (d) Nutritional

- 369. Which ECG finding is rare in alcoholic cardiomyopathy?**
- (a) Peaked T wave
  - (b) ST Segment depression
  - (c) Ventricular arrhythmia
  - (d) Abnormal Q wave
- 370. Most specific finding of left heart failure is**
- (a) Interstitial edema on X-ray
  - (b) S3
  - (c) Cardiomegaly
  - (d) Basal rales
- 371. Most specific sign of RVF**
- (a) Jugular venous distension
  - (b) Liver enlargement
  - (c) Pleural effusion
  - (d) Edema
- 372. Which ACE inhibitors is balanced arterio-venous dilator?**
- (a) Captopril
  - (b) Quinapril
  - (c) Lisinopril
  - (d) Enalapril
- 373. IV frusemide has which addition at haemodynamic effect which is useful in acute left ventricular failure**
- (a) Arterial dilator
  - (b) Reduces pulmonary wedge pressure
  - (c) Increase renal perfusion
  - (d) Increase peripheral perfusion
- 374. Which is balanced arterio venous dilator?**
- (a) Nitroglycerine
  - (b) Sodium nitroprusside
  - (c) Prazosin
  - (d) Lisinopril
- 375. All are confirmed sarcomere gene mutations in HCM except**
- (a)  $\beta$ -Myosin heavy chain
  - (b) Cardiac troponin T
  - (c) Cardiac troponin I
  - (d) Troponin C
- 376. All the following are ECG abnormalities in HCM except**

- (a) Pathologic Q
- (b) Increase LV voltage
- (c) Increase PR interval
- (d) Left atrial enlargement

**377. Method of choice in non obstructive HCM is**

- (a)  $\beta$ -blockers
- (b) Verapamil
- (c) Disopyramide
- (d) Septal ablation

**378. All are established risk factors for sudden cardiac death in HCM except**

- (a) Maximum wall thickness > 30 mm
- (b) Abnormal BP response during exercise
- (c) Resting outflow gradient > 50 mmHg
- (d) Presence of significant mitral regurgitation

**379. All following factors influence LV chamber stiffness except**

- (a) Myocardial relaxation
- (b) RV infarction
- (c) LV mass
- (d) Atrial contraction

**380. All are causes of LV diastolic dysfunction except**

- (a) Anaemia
- (b) Cirrhosis
- (c) Thyrotoxicosis
- (d) Osteoporosis

**381. All are causes of strain dependent LV dysfunction except**

- (a) Constriction pericarditis
- (b) IHD
- (c) HCM
- (d) Atrial fibrillation

**382. Which drug is not given in diastolic heart failure?**

- (a) Diuretics
- (b)  $\beta$ -blockers
- (c) Verapamil
- (d) Digoxin

**383. All following are the mechanism sinus of accelerated atherosclerosis is diabetes**

- (a) Endothelial dysfunction
- (b) Dyslipidemia
- (c) Impaired fibrinolysis
- (d) All the above

- 384. All are non infiltrative CMP except**
- (a) Idiopathic
  - (b) Pseudoxanthoma elasticum
  - (c) Sclerodema
  - (d) Gaucher's disease
- 385. All following antiarrhythmics increase defibrillation threshold in ICD patients except**
- (a) Class I
  - (b) Verapamil
  - (c) Amiodarone
  - (d) Class IA
- 386. Which antiarrhythmic agents has no effect on defibrillation threshold in ICD patients?**
- (a) Class IA
  - (b) Class IB
  - (c) Class IC
  - (d) Verapamil
- 387. All following arrhythmia have autosomal dominant inheritance except**
- (a) Atrial fibrillation
  - (b) WPW
  - (c) Long QT (RW)
  - (d) Long QT (JLW)
- 388. All are metabolic disease causing dilated CMP except**
- (a) Throtoxicosis
  - (b) Hypothyroidism
  - (c) Pheochromocytoma
  - (d) Addison's disease
- 389. RV enlargement is infrequent in which cardiomyopathy?**
- (a) Restrictive cardiomyopathy
  - (b) Dilated cardiomyopathy
  - (c) Endomyocardial fibrosis
  - (d) None of these
- 390. Low voltage ECG is often seen in all the following types of cardiomyopathy except**
- (a) HCM
  - (b) Idiopathic dilated CMP
  - (c) Amyloidosis
  - (d) Endomyocardial fibrosis
- 391. Biventricular pacing is usually indicated in medically refractory heart failure in all following situation except.**
- (a) LV ejection fraction < 35 %
  - (b) NYHA class III – IV

- (c) Normal QRS duration
  - (d) Wide QRS complex
- 392. Cardiac apex beat is displaced in which cardiomyopathy?**
- (a) HCM
  - (b) RCM
  - (c) DCM
  - (d) All of the above
- 393. Preload is increased in all the following conditions except**
- (a) Renal failure
  - (b) Polycythemia
  - (c) Regurgitant lesions
  - (d) Left to right shunt
- 394. After load is increased in all the following except**
- (a) Aortic stenosis
  - (b) Hypertension
  - (c) PS
  - (d) Severe anaemia
- 395. Which of the following drug may be harmful in heart failure?**
- (a) Digoxin
  - (b) Non digitales inotropes
  - (c) ACE inhibitors
  - (d)  $\beta$ -blockers
- 396. All following statements regarding use of ACE inhibitors in HF are correct except**
- (a) Reduce mortality
  - (b) Reduce ischaemic events
  - (c) Reduce arrhythmias
  - (d) Reduce hospitalizations
- 397. Which  $\beta$ -blocker has maximum duration of action?**
- (a) Oxprenolol
  - (b) Bisoprolol
  - (c) Atenolol
  - (d) Metoprolol
- 398. Which is the water soluble  $\beta$ -blocker?**
- (a) Atenolol
  - (b) Metoprolol
  - (c) Propranolol
  - (d) Oxprenolol
- 399. Sudden worsening of cardiac dyspnoea is commonly due**
- (a) Increased in the basic lesion
  - (b) Anaemia
  - (c) Infective endocarditis
  - (d) Arrhythmia

**400. Which of the following is incorrect?**

- (a) Highest venous O<sub>2</sub> saturation is 80 %
- (b) Lowest arterial O<sub>2</sub> saturation 90 %
- (c) Cyanosis cannot be detected if O<sub>2</sub> saturation is > 85 %
- (d) Arterial O<sub>2</sub> saturation ranges between 90 to 110 %

**401. All drugs are contraindicated HOCM except**

- (a) ACE inhibitors
- (b) Digoxin
- (c) Diuretics
- (d) Disopyramide

**402. Which ACE inhibitors has SH group?**

- (a) Captopril
- (b) Enalapril
- (c) Lisinopril
- (d) Ramipril

**403. PAP is < 50 mmHg in which of the following condition?**

- (a) Constrictive pericarditis
- (b) Endomyocardial fibrosis
- (c) Amyloid heart disease
- (d) Primary restrictive cardiomyopathy

**404. In amyloid heart disease all are absent except**

- (a) Pulsus paradoxus
- (b) Kussmaul's sign
- (c) S3
- (d) Murmur

**405. In endomyocardial fibrosis all are present except**

- (a) Kussmaul's sign
- (b) 3<sup>rd</sup> HS
- (c) Murmurs
- (d) Pulses paradoxus

**406. Cardiac muscle has all the feature except**

- (a) Mitochondria are more than skeletal muscle
- (b) Sarcoplasmic reticulum are less than skeletal muscle
- (c) Oxygen debt is present
- (d) Jetanin does not occur

**407. All are mechanical alterations in heart failure except**

- (a) Decreased in velocity of shortening
- (b) Decreased in force development
- (c) Decreased in maximum rate of force development

- (d) Increased in passive length – tension relations

**408. All are biochemical alterations in heart failure except**

- (a) Decreased actomyosin ATP activity  
(b) Decreased collagen  
(c) Decreased myocardial NE  
(d) Decreased function of sarcoplasmic reticulum

**409. All the following diuretics given once a day**

- (a) Amelorida (b) Chlorthalidone  
(c) Furosemide (d) Indapamide

**410. All following diuretic are given once time a day except**

- (a) Furosemide (b) Mannitol  
(c) Spironolactone (d) Metolazone

**411. All following diuretics major excreting throbinding except**

- (a) Amelorida (b) Furosemide  
(c) Mannitol (d) Spironolactone

**412. Which diuretic may causes ototoxicity?**

- (a) Furosemide (b) Spironolactone  
(c) Amelorida (d) Thiazides

**413. Which  $\beta$ -blockers decreased mortality in heart failure maximally?**

- (a) Bisoprolol (b) Metoprolol  
(c) Carvedilol (d) None of these

**414. Most common symptom of inflammatory cardiomyopathy is**

- (a) Dyspnea on exertion  
(b) History of viral infection  
(c) Palpitation  
(d) Angina

**415. All following arrhythmia commonly occurs in heart failure except**

- (a) Atrial and ventricular extasystoles  
(b) Atrial fibrillation  
(c) Non sustained VT  
(d) AV block

- 416. All following neuroendocrine metabolic abnormalities are associated with cardiac cachexia except**
- (a) Neuroendocrine activation
  - (b) Immune activation
  - (c) Development of metabolic syndrome
  - (d) Haemodynamic factors
- 417. All are common causes of restrictive cardiomyopathy except**
- (a) Amyloid
  - (b) Idiopathic
  - (c) Tropical endomyocardial fibrosis
  - (d) Scleroderma
- 418. Most sensitive and specific risk factors of sudden cardiac death in HCM**
- (a) Family history of sudden cardiac death
  - (b) LVH  $\geq 30$  mm
  - (c) Syncope
  - (d) NSVT drug holter
- 419. All are rare cause of restrictive cardiomyopathy except**
- (a) Scleroderma
  - (b) Storage diseases
  - (c) Radiation induced
  - (d) Haemochromatosis
- 420. Which is most sensitive finding on echo for cardiac amyloidosis?**
- (a) Speckled appearance of IVS
  - (b) A-V regurgitation
  - (c) Enlarged atria
  - (d) EF < 25 %
- 421. Which tissue biopsy is most sensitive for cardiac amyloidosis?**
- (a) Rectal biopsy
  - (b) Skin biopsy
  - (c) Bone marrow biopsy
  - (d) Endomyocardial biopsy
- 422. Which is least sensitive test for cardiac amyloidosis?**

- (a) ECG
  - (b) Echo
  - (c) Tissue biopsy
  - (d) Radionuclide imaging
- 423. Radiological pattern of high altitude pulmonary edema has all following treatment except**
- (a) Supradiaphragmatic patch lung infiltrates
  - (b) Prominent pulmonary arteries
  - (c) Normal sized heart
  - (d) Diuretics causes resolution of infiltrates
- 424. Which sympatho mimetic agent acts only on  $\beta_1$  receptor?**
- (a) Dopamine
  - (b) Dobutamine
  - (c) Propranolol
  - (d) Levodopa
- 425. Most frequent arrhythmia with digitalis intoxication is**
- (a) PVC
  - (b) PAT with block
  - (c) AV block
  - (d) VT
- 426. Digoxin levels are increased by all following drugs except**
- (a) Quinidine
  - (b) Verapamil
  - (c) Spironolactone
  - (d) Neomycin
- 427. Which drug does not produce dilated cardiomyopathy?**
- (a) Anthracycline
  - (b) Chloroquine
  - (c) Ephedrine
  - (d) Ergotamine
- 428. Which contractive protein of heart located in thick filament?**
- (a) Myosin
  - (b) Actin
  - (c) Tropomyosin
  - (d) Troponin T
- 429. LBBB does not occurs usually in which type of cardiomyopathy**
- (a) Dilated
  - (b) Restrictive
  - (c) Hypertrophic
  - (d) All of the above
- 430. LV hypertrophy does not occurs in which cardiomyopathy**
- (a) Restrictive
  - (b) Dilated
  - (c) Hypertrophic
  - (d) All of the above

- 431. In which cardiomyopathy arrhythmias are less common?**
- (a) Restrictive
  - (b) Hypertrophic
  - (c) Dilated
  - (d) Arrhythmogenic right ventricular
- 432. Most common type of mechanical alternans**
- (a) 1 : 1
  - (b) 2 : 1
  - (c) 3 : 1
  - (d) 4 : 1
- 433. All are risk factors for heart failure except**
- (a) IHD
  - (b) HT
  - (c) DM
  - (d) Hyperlipidemia
- 434. Which type of cardiomyopathy is usually not the cause of sudden cardiac death?**
- (a) Idiopathic dilated CMP
  - (b) Peripartum CMP
  - (c) Hypertrophic CMP
  - (d) Right ventricular cardiomyopathy
- 435. Heart failure in elderly has all following features except**
- (a) High incidence
  - (b) Most commonly caused by CAD
  - (c) Diastolic dysfunction is prominent
  - (d) Drug of choice is high dose loop diuretics
- 436. Which diuretic does not cause myocarditis?**
- (a) Thiazide
  - (b) Loop diuretics
  - (c) Acetazolamide
  - (d) Spironolactone
- 437. All following nutritional deficiency are linked to dilated cardiomyopathy except**
- (a) Thiamine
  - (b) Selenium
  - (c) Carnitine
  - (d) Vit. D
- 438. All are reversible cause of heart failure except**
- (a) Ischemic
  - (b) Lymphocytic myocarditis
  - (c) Tachycardia induced cardiomyopathy
  - (d) Amyloid heart disease
- 439. Myocardial hypertrophy is due to all except**

- (a) Increased size
- (b) Increased cell division
- (c) Increased biosynthesis of protensis
- (d) Increased surface area and cell volume

**440. All are advantages of S-isomer metoprolol except**

- (a) Early reduction of blood pressure than racemic form
- (b) Safe in COPD hypertension patients
- (c) Safe in extensive metabolizers
- (d) No advantage of OD Dose

**441. Which is usual teratogenic effect of ACE inhibitor?**

- (a) PDA
- (b) PS
- (c) Renal agenesis
- (d) HCM

**442. Which  $\beta$ -blocker has maximal protein binding?**

- (a) Propranolol
- (b) Atenolol
- (c) Metoprolol
- (d) Pindolol

**443. Common causes of heart failure in elderly except**

- (a) Hypertension
- (b) Coronary artery disease
- (c) Amyloid heart
- (d) Corpulmonale

**444. Commonest causes of heart failure in elderly**

- (a) Coronary artery disease
- (b) Calcific aortic stenosis
- (c) Hypertension
- (d) Idiopathic dilated cardiomyopathy

**445. Nocturia occurs in all the following cardiac disorders except**

- (a) Cardiac edema
- (b) Hypertension
- (c) During SVT
- (d) During CHBD

**446. All the following endocrinal disorders lead to cardiac defect except**

- (a) Hypothyroidism
- (b) Hypoparathyroidism
- (c) Pheochromocytoma
- (d) Addison's disease

- 447. All are true regarding mechanical prosthetic valve**
- (a) Opening click
  - (b) Closing click
  - (c) Absence of click indicate malfunction
  - (d) None of the these
- 448. Ischamic T wave has all the following features except**
- (a) Deep
  - (b) Symmetrical
  - (c) Arrow head
  - (d) Round head
- 449. Which of the following rarely produce atrial fibrillation?**
- (a) Coronary artery disease
  - (b) Cardiomyopathy
  - (c) Thyrotoxicosis
  - (d) Constrictive pericarditis
- 450. Which vasodilator are avoided in treatment of heart failure?**
- (a) Nitrate
  - (b) ACE inhibitor
  - (c) ARBS
  - (d) Ca-blockers
- 451. Mortality is reduced by all agents in heart failure except**
- (a) ACE inhibitor
  - (b) Spironolactone
  - (c) Beta-blockers
  - (d) ARBs
- 452. In heart failure sudden cardiac death is reduced by all except**
- (a) Spironolactone
  - (b)  $\beta$ -blocker
  - (c) AT receptor blocker
  - (d) ACE inhibitor
- 453. Which drug reduces sympt mortality sudden cardiac death in heart failure?**
- (a)  $\beta$ -blocker
  - (b) Diuretics
  - (c) Digoxin
  - (d) A2 receptor blockers
- 454. All following Beta-blocker are used to decrease intraocular hypertension except**
- (a) Betaxalol
  - (b) Carteolol
  - (c) Timolol
  - (d) Metoprolol

**455. Heart failure in diabetics is caused by all except**

- (a) Hypertension
- (b) Coronary artery disease
- (c) Thiazoidinediones
- (d) Insulin

**456. All are the cardiovascular complications of  $\beta$ -blockers except**

- (a) SSS
- (b) High degree AV block
- (c) Class II/III heart failure
- (d) Raynaud's phenomena

**457. Which Ca-blockers is associated more frequency of constipation?**

- (a) Verapamil
- (b) Diltiazem
- (c) Nifedipine
- (d) Diltiazem XR

**458. Dobutamine does not act on following receptors except**

- (a)  $\alpha_2$
- (b) DA1
- (c) DA2
- (d) B1

**459. Isoprenaline does not act on all following receptors except**

- (a)  $\alpha_1$
- (b)  $\alpha_2$
- (c) DA2
- (d) B2

**460. Epinephrine does not act on all following receptors except**

- (a)  $\beta_2$
- (b) DA1
- (c) DA2
- (d) B1

**461. Norepinephrine does not act on following receptors except**

- (a)  $\beta_2$
- (b)  $\beta_1$
- (c) DA1
- (d) DA2

**462. Which is the commonest cardiomyopathy in India?**

- (a) Dilated cardiomyopathy
- (b) HCM
- (c) Enolomyocardial fibrosis
- (d) Arrhythmogenic RV

- 463. Which is commonest complication of Untreated hypertension?**
- (a) LVH (b) Heart failure  
(c) Angina (d) Stroke
- 464. All are atherosclerotic complications of hypertension except**
- (a) Cerebral thrombosis  
(b) Coronary artery disease  
(c) Clandicalin syndrome  
(d) Renal failure
- 465. All are common features of diastolic heart failure except**
- (a) Frequently in elderly  
(b) Usually with concentric LVH  
(c) Pulmonary congestion  
(d) S3
- 466. Ankle edema is most with**
- (a) Verapamil (b) Diltiazem  
(c) Nifedipine (d) All of the above
- 467. Isoprenaline does not act on all following receptors except**
- (a)  $\alpha_1$  (b)  $\alpha_2$   
(c) DA2 (d) B2
- 468. Epinephrine does not act on all following receptors except**
- (a)  $\beta_2$  (b) DA1  
(c) DA2 (d) B1
- 469. Norepinephrine does not act on following receptors except**
- (a)  $\beta_2$  (b)  $\beta_1$   
(c) DA1 (d) DA2
- 470. Which antiarrhythmic does not increase PR interval?**
- (a) Flecainide (b) Propafenone  
(c) Verapamil (d) Lidocaine
- 471. All following are electrophysiological parameters for poor prognosis in heart failure**
- (a) LBBB (b) Atrial fibrillation  
(c) VT (d) 1° AV block

- 472. Which is most important finding ECG in diastolic heart failure?**
- (a) Low voltages (b) LVH  
(c) Q wave (d) 'P' pulmonale
- 473. Which of the following antihypertensive reduces initially cardiac output?**
- (a) Ca-blocker (b)  $\beta$ -blocker  
(c) ACE inhibitor (d)  $\alpha$ -blocker
- 474. Drug of choice in hypertension with BPH**
- (a)  $\alpha$ -blocker (b)  $\beta$ -blocker  
(c) Ca-blockers (d) Thiazide
- 475. Drug of choice for hypertension with cerebrovascular disease.**
- (a) Thiazide (b) ACE inhibitors  
(c)  $\beta$ -blockers (d) Ca-blockers
- 476. Flushing does not occur with which Ca-blocker**
- (a) Diltiazem (b) Verapamil  
(c) Nifedipine (d) None of these
- 477. All following ARBs have active metabolite except**
- (a) Candesartan (b) Losartan  
(c) Olmesartan (d) Telmisartan
- 478. All following ARBS have no active metabolite except**
- (a) Irbesartan (b) Telmisartan  
(c) Valsartan (d) Losartan
- 479. How frequent is hypertension in takayasu's Arteritis?**
- (a) 10% (b) 20%  
(c) 30% (d) 50%
- 480. Which Ca-blocker does not cause constipation?**
- (a) Nifedipine (b) Diltiazem  
(c) Verapamil (d) All of the above
- 481.  $\beta$ -blockers use in pregnancy results in neonate**
- (a) Sinus bradycardia (b) SSS  
(c) AVB (d) BBB

**481. Which cause of right heart failure persists with RVS3?**

- (a) Cardiac tamponade
- (b) Mitral stenosis
- (c) TS
- (d) Corpulmonale

**483. Which of the following change with aging does not occurs?**

- (a) Increased LV wall thickness
- (b) Increased myocytes size
- (c) Increased myocytes number
- (d) Increased callagen

**ANSWERS**

1. (c)    2. (d)    3. (a)    4. (d)    5. (d)  
6. (d)    7. (d)    8. (b)    9. (d)    10. (c)  
11. (d)    12. (a)    13. (d)    14. (b)    15. (d)  
16. (b)    17. (d)    18. (d)    19. (d)    20. (a)  
21. (c)    22. (a)    23. (a)    24. (a)    25. (c)  
26. (b)    27. (a)    28. (a)    29. (d)    30. (b)  
31. (d)    32. (d)    33. (d)    34. (d)    35. (d)  
36. (c)    37. (c)    38. (c)    39. (b)    40. (c)  
41. (d)    42. (a)    43. (c)    44. (c)    45. (b)  
46. (d)    47. (d)    48. (d)    49. (d)    50. (a)  
51. (d)    52. (d)    53. (c)    54. (d)    55. (a)  
56. (d)    57. (d)    58. (d)    59. (c)    60. (d)  
61. (b)    62. (c)    63. (d)    64. (a)    65. (d)  
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71. (a)    72. (c)    73. (d)    74. (a)    75. (d)  
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81. (c)    82. (d)    83. (d)    84. (d)    85. (a)  
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91. (c)    92. (a)    93. (d)    94. (d)    95. (c)  
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481. (a) 482. (d) 483. (c)

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## SECTION-3

# ARRHYTHMIAS AND SUDDEN CARDIAC DEATH

1. **External cardiac massage is usually done in the**
  - (a) Lower 1/3 of sternum
  - (b) Xiphisternum
  - (c) Middle of sternum
  - (d) Manubrium
2. **Atrial fibrillation is seen in all of the following except**
  - (a) Constrictive pericarditis
  - (b) Atrial septal defect
  - (c) Mitral stenosis
  - (d) Myocardial infarction
  - (e) Ventricular septal defect
3. **All of the following are ECG manifestations in wolf parkinson white syndrome except**
  - (a) Narrow QRS
  - (b) Initial slurred upstroke
  - (c) Short PR interval
  - (d) Normal QT interval
4. **The commonest arrhythmia encountered in digitalis toxicity is**
  - (a) Complete heart block
  - (b) Sick sinus syndrome
  - (c) Bigeminy rhythm
  - (d) Atrial fibrillation
5. **The drug of choice in paroxysmal supraventricular tachycardia is**
  - (a) Digoxin
  - (b) Dilantin
  - (c) Propranolol
  - (d) Adenosine

6. **Which is the most common arrhythmia in myotonic dystrophy?**
  - (a) Paroxysmal atrial fibrillation
  - (b) Paroxysmal complete heart block
  - (c) Paroxysmal atrial tachycardia
  - (d) Ventricular tachycardia
7. **Atrial fibrillation is most commonly present in**
  - (a) Severe chronic mitral regurgitation
  - (b) Mitral stenosis (Severe)
  - (c) Aortic stenosis (Severe)
  - (d) Aortic regurgitation(Chronic Severe)
8. **Risk of sudden cardiac death is most common in which of the following surgically corrected lesions?**
  - (a) Atrial septal defect
  - (b) Ventricular septal defect
  - (c) Patent ductus arteriosus
  - (d) Tetralogy of fallots
9. **1<sup>st</sup> degree AV-block particularly occurs in chronic aortic regurgitation**
  - (a) Rheumatic
  - (b) Syphilitic
  - (c) Congenital
  - (d) Ankylosing spondylitis
10. **Which drug is found to decrease mortality in heart failure?**
  - (a) Thiazides
  - (b) Loop diuretics
  - (c) Aldosterone antagonist
  - (d) None of the above
11. **All the following are contraindication to  $\beta$ -blockers except**
  - (a) Left Bundle branch block
  - (b) High degree AV-block
  - (c) Sick sinus syndrome
  - (d) Severe bradycardia
12. **Best  $\beta$ -blocker in treatment of re-entry arrhythmia is**

- (a) Propranolol            (b) Atenolol  
(c) Nebivolol            (d) Sotalol

**13. Verapamil is contraindicated in all of the following except**

- (a) Sick sinus syndrome  
(b) Ventricular tachycardia  
(c) Atrial fibrillation with WPW syndromes  
(d) Exercise induced VT

**14. Commonest cause of atrial fibrillation is**

- (a) Hypertension  
(b) Restrictive cardiomyopathy  
(c) Pericardial disease  
(d) Heart failure

**15. Adenosine is contraindicated in all except**

- (a) Advanced AV-block  
(b) Acute myocardial infarction  
(c) Asthma  
(d) Heart failure

**16. Median time for termination of AVNRT by adenosine is**

- (a) 60 sec  
(b) 40 sec  
(c) 80 sec  
(d) 20 sec

**17. Burgada syndrome is characterized by**

- (a) RBBB  
(b) ST segment elevation in V1-V3  
(c) Ventricular fibrillation  
(d) All of the above

**18. Commonest arrhythmia in digitalis toxicity is**

- (a) Multifocal PVC  
(b) 1 degree AVB  
(c) Ventricular tachycardia  
(d) Complete heart block

**19. All the  $\beta$ -blockers causes reduction in sudden cardiac death except**

- (a) Metoprolol            (b) Atenolol  
(c) Propranolol            (d) Timolol

- 20. Most common arrhythmia by digitalis toxicity is**
- (a) Atrial fibrillation (b) AVB
  - (c) Bigeminal rhythm (d) VT
- 21. Most distinctive digitalis induced arrhythmia is**
- (a) VT (b) PVC
  - (c) PAT with block (d) Sinus bradycardia
- 22. Which of the following arrhythmia is commonest in athlete heart?**
- (a) Sinus bradycardia
  - (b) 1 degree AV block
  - (c) II degree AV block
  - (d) None of the above
- 23. Which of the ECG finding is most common in athlete's heart?**
- (a) ST segment elevation
  - (b) ST segment depression
  - (c) Biphasic T waves
  - (d) RBBB
- 24. Which arrhythmia is most common in HCM?**
- (a) Atrial fibrillation (b) RBBB
  - (c) LBBB (d) All of the above
- 25. Recurrences of atrial fibrillation depends on following except**
- (a) Duration > 1 year
  - (b) Age of patient > 60 years
  - (c) Large left atrial size > 55mm
  - (d) Lone atrial fibrillation
- 26. All are ECG evidences of pacemaker malfunction except**
- (a) Increase in height of pacing artifact
  - (b) Decrease in pacemaker generator rate
  - (c) Increase in pacemaker generator rate
  - (d) None of the above
- 27. Parasystole is diagnosed by all ECG features except**
- (a) Varying coupling intervals
  - (b) Constant short inter ectopic intervals

- (c) Presence of fusion beats
  - (d) Presence of captured beats
- 28. Reversed bigeminy has all of the following features except**
- (a) Junctional escaped beat is paired with sinus impulse
  - (b) 'P' wave is sandwiched between two QRS complexes
  - (c) P wave is upright
  - (d) P wave is inverted
- 29. Amiodarone is definitely contraindicated in**
- (a) WPW syndrome with rapid atrial fibrillation
  - (b) Ventricular arrhythmias during pregnancy
  - (c) Arrhythmias with thyroid dysfunction
  - (d) None of the above
- 30. All of the following are urgent indication for cardioversion and defibrillation except**
- (a) VF
  - (b) Hypertensive VT
  - (c) AF with rapid VR
  - (d) Torsade de pointes
- 31. Which arrhythmia requires least energy for cardioversion and defibrillation?**
- (a) VF
  - (b) VT
  - (c) Atrial flutter
  - (d) Atrial fibrillation
- 32. Which of the following is commonest SVT?**
- (a) AVNRT
  - (b) AVRT
  - (c) Atrial tachycardia
  - (d) Intra atrial re-entry tachycardia
- 33. Which tachycardia is frequently terminated by vagal maneuvers?**
- (a) AVNRT
  - (b) AVRT
  - (c) VT
  - (d) Sinus tachycardia
- 34. All of the following are indications for electrophysiological study except**
- (a) VT
  - (b) WPW with rapid atrial fibrillation
  - (c) 1 degree AVB
  - (d) Sustained VT

- 35. Which of the SVT is not associated with AV block?**
- (a) Atrial flutter      (b) SNRT  
(c) AVNRT              (d) AVRT
- 36. DDD pacing with short PR may be indicated in following except**
- (a) HOCM symptomatic  
(b) HOCM with subaortic significant gradient  
(c) Asymptomatic HCM  
(d) All of the above
- 37. All are most frequent changes in neurogenic heart syndrome except**
- (a) Prolonged QT interval  
(b) Wide T wave  
(c) Atrial fibrillation  
(d) VT
- 38. Prolonged resuscitation (for hours) should be done in all the following conditions except**
- (a) Hypothermia  
(b) Barbiturate over dose  
(c) Electrocution  
(d) Drowning
- 39. Low energy cardioversion is effective in (10.50 w/s)**
- (a) Atrial flutter      (b) Atrial fibrillation  
(c) SVT                (d) VT
- 40. Anticoagulation in atrial fibrillation the INR is recommended at**
- (a) 1-2                    (b) 2-3  
(c) 3-4                    (d) Any of these
- 41. MFT has all the following features except**
- (a) Rate < 150/m  
(b) Commonly occurs in chronic lung diseases  
(c) under laying diseases  
(d) No rate for cardiovascular
- 42. Treatment of choice in hemodynamically compromised atrial flutter is**

- (a) Carotid sinus massage
  - (b) Digoxin
  - (c) Verapamil
  - (d) Low energy cardioversion
- 43. NSVT in following sit native is all high for VT/ VF except**
- (a) DCMP non ischemia
  - (b) Ischemia DCMP
  - (c) No inter lying heart diseases
  - (d) MVP
- 44. Patient with pence inabens are recommended which of the cellular phones except**
- (a) Ordaining cellular
  - (b) Analog cellular
  - (c) Digital cellular
  - (d) All of these
- 45. Which SVT is often associated with syncope?**
- (a) AVRT
  - (b) AVNRT
  - (c) AAT
  - (d) Atrial fibrillation
- 46. Most common underlying heart disease of sudden cardiac death is**
- (a) Idiopathic ischemic cardiomyopathy
  - (b) Hypertrophic cardiomyopathy
  - (c) Coronary artery disease
  - (d) Aortic stenosis
- 47. Which anti arrhythmic is avoided in pregnancy?**
- (a) Amiodarone
  - (b)  $\beta$ -blocker
  - (c) Verapamil
  - (d) All of them
- 48. Commonest arrhythmia in congenitally corrected transposition of great vessels is**
- (a) Varying duration of AV-block
  - (b) Atrial fibrillation
  - (c) WPW
  - (d) ANRT
- 49. Cardiac arrhythmia are more common in which part of brain lesion?**
- (a) Cerebral cortex
  - (b) Internal capsule lesion
  - (c) Brain stem lesion
  - (d) Basal ganglia

- 50. Diltiazem is contraindicated in all except**
- (a) Systolic heart failure
  - (b) 2 degree and 3 degree AV-block
  - (c) 1 degree AV-block
  - (d) Sick sinus syndrome
- 51. Arrhythmias are best assessed by**
- (a) Holter
  - (b) X-ray
  - (c) ECG
  - (d) Physical examination
- 52. Which drug does not coat-tail VR in atrial fibrillation?**
- (a) Digoxin
  - (b) Verapamil
  - (c) Amiodarone
  - (d) Nifedipine
- 53. All the following are indications for pacing except**
- (a) Symptomatic persistent or intermittent CHB
  - (b) Asymptomatic patients with VR < 40/min
  - (c) Asymptomatic 1 degree AVB
  - (d) Asymptomatic II degree AVB with prolonged HV interval
- 54. Commonest risk factor for sudden cardiac death is**
- (a) Coronary artery disease
  - (b) Coronary artery disease with left ventricle failure
  - (c) Mitral valve disease
  - (d) Pericardial disease
- 55. Brugada syndrome has all the following features except**
- (a) ST elevation in V1-V3
  - (b) RBBB
  - (c) Sudden cardiac death
  - (d) Underlying structural heart disease is present
- 56. Most effective antiarrhythmic agent for both supra ventricular and ventricular arrhythmias is**

- (a)  $\beta$ -blockers                      (b) Quinidine  
(c) Xylocaine                            (d) Amiodarone
- 57. Which electrolyte abnormality is not associated with sudden cardiac death?**
- (a) Hypokalemia  
(b) Hyperkalemia  
(c) Hypocalcemia  
(d) Hypomagnesaemia
- 58. All the following drugs may cause sudden cardiac death except**
- (a) Erythromycin                      (b) Clarithromycin  
(c) Pentamidine                        (d) Theophylline
- 59. In arrhythmogenic right ventricular dysplasia the usual arrhythmic sites are all except**
- (a) RVOT                                    (b) Apex  
(c) RV inflow                              (d) Any part of RV
- 60. All following congenital heart disease are predominantly associated with sudden cardiac death except**
- (a) Congenital AS                        (b) TOF  
(c) TGA                                      (d) PDA
- 61. All the following are the mechanism of Cardiac arrest except**
- (a) Electromechanical dissociation  
(b) Ventricular fibrillation  
(c) Asystole  
(d) Ventricular tachycardia
- 62. All following arrhythmias usually precipitate heart failure except**
- (a) Atrial fibrillation  
(b) Ventricle tachycardia  
(c) Multifocal atrial tachycardia  
(d) 1° AV-block
- 63. Exertional syncope occurs in all the following except**
- (a) Aortic stenosis  
(b) Hypertrophic cardiomyopathy  
(c) Pulmonary hypertension  
(d) Pulmonary stenosis

- 64. Symptomatic sinus tachycardia is treated with all of the following except**
- (a) Tranquilizers      (b) Reserpine  
(c) Propranolol      (d) Digitalis
- 65. Which is the common tachyarrhythmia encountered in WPW syndromes?**
- (a) Paroxysmal SVT  
(b) Atrial fibrillation  
(c) Atrial flutter  
(d) Ventricular tachycardia
- 66. Commonest block which precedes CHB is?**
- (a) LBBB  
(b) 1° AVB  
(c) Mobitz decrease AVB  
(d) Bilateral bundle branch block
- 67. In which of the following supraventricular tachycardia verapamil is first choice drug?**
- (a) AVNRT      (b) AVRT (wide QRS)  
(c) MFAT      (d) AT
- 68. Shock with out tachycardia occurs in all the following except**
- (a) Complete heart block  
(b) Diabetes mellitus  
(c) Intracranial surgery  
(d) Myocarditis
- 69. Shock with atrial fibrillation can occurs in all the following except**
- (a) Acute myocardial infarction  
(b) Mitral stenosis  
(c) Acute pulmonary embolism  
(d) Cardiac tamponade
- 70. Which anti anginal agent prevents sudden cardiac death in IHD?**
- (a)  $\beta$ -blockers      (b) Diltiazem  
(c) Amlodipine      (d) Nitrates
- 71. Commonest digitalis induced arrhythmia is**
- (a) Non paroxysmal A-V junctional tachycardia  
(b) VT

- (c) CHB
  - (d) Since bradycardia
- 72. Torsades de pointes is commonly caused by all the following except**
- (a) Quinidine
  - (b) Procainamide
  - (c) Flecainide
  - (d) Amiodarone
- 73. Most common cause of sudden death in young is**
- (a) Aortic stenosis
  - (b) HCM
  - (c) PS
  - (d) Congenital CHB
- 74. Commonest supraventricular arrhythmia in acute myocardial infarction**
- (a) Atrial fibrillation
  - (b) Atrial flutter
  - (c) Ectopic atrial tachycardia
  - (d) AVNRT
- 75. Which supraventricular arrhythmia is rare in acute myocardial infarction?**
- (a) AVNRT
  - (b) Atrial flutter
  - (c) Sinus tachycardia
  - (d) Ectopic atrial tachycardia
- 76. All following suggest WPW centrant SVT except**
- (a) wide QRS
  - (b) inverted 'P' in L1
  - (c) Electrical QRS alternans
  - (d) Syncope does not occurs
- 77. Vasopressin is effective in all except**
- (a) Ventricular fibrillation
  - (b) Asystole
  - (c) Electromechanical dissociation
  - (d) All of these
- 78. Hall mark ECG manifestation of quinidine effect**
- (a) Prolonged QT
  - (b) Widening or notching of 'P' wave
  - (c) ST & T wave changes
  - (d) Atrial flutter

- 79. All are toxic manifestation of quinidine except**
- (a) Prolongation of PR interval
  - (b) Atrial standstill
  - (c) Diffuse inter ventricular block
  - (d) Atrial flutter
- 80. Most common congenital heart disease associated with WPW syndrome**
- (a) Ebstein's anomaly
  - (b) Hypertrophic cardiomyopathy
  - (c) ASD
  - (d) All the above
- 81. Which is called as chung's phenomenon?**
- (a) Ventricular aberrant conduction
  - (b) Atrial aberrant conduction
  - (c) Wandering atrial pacemaker
  - (d) Junctional escape beat
- 82. Electrical alternans most commonly indicates**
- (a) QRS complex
  - (b) 'P' wave
  - (c) ST segment
  - (d) T wave
- 83. Common alternating ratio in electrical alternans is**
- (a) 2 : 1
  - (b) 3 : 1
  - (c) 4 : 1
  - (d) 4 : 2
- 84. Which is the commonest cause of electrical alternans?**
- (a) Pericardial effusion
  - (b) Heart failure
  - (c) Hypocalcemia
  - (d) SLE
- 85. Commonest cause of atrialventricular dissociation is**
- (a) Intractable heart failure
  - (b) Digitalis intoxication
  - (c) Critically ill patients
  - (d) Pneumonia
- 86. Most common cause of chronic CHB is**
- (a) Degenerative process
  - (b) Coronary artery disease
  - (c) Digitalis intoxication
  - (d) Congenital

- 87. Most common cause of atrial stand stills**
- (a) Digitalis intoxication
  - (b) Quinidine toxicity
  - (c) Hyperkalemia
  - (d) Hypercapnia
- 88. Most common cause of coarse atrial fibrillations**
- (a) Mitral stenosis
  - (b) Thyrotoxicosis
  - (c) Hypertensive heart disease
  - (d) Coronary artery disease
- 89. All the following tachyarrhythmia by acute myocardial infarction are benign and self limited except**
- (a) Idio ventricular tachycardia
  - (b) Para systolic ventricular tachycardia
  - (c) Junctional tachycardia
  - (d) Ventricular flutter
- 90. Following are the physical signs in CHB except**
- (a) Cannon 'a' wave
  - (b) Reytand murmur (mitral mid diastolic murmur)
  - (c) Cardiomegaly
  - (d) Mitral regurgitation murmur (systolic)
- 91. Cardio toxicity of quinidine include all except**
- (a) Sinus arrest
  - (b) AV block
  - (c) VT
  - (d) Atrial fibrillation
- 92. Lone atrial fibrillation has all the following features except**
- (a) Commonly occurs after age 40 years
  - (b) No underlying heart disease
  - (c) Heart failure may occurs
  - (d) Often associated with fast ventricular rate
- 93. Regular VR in atrial fibrillation occurs in all following except**
- (a) CHB
  - (b) VT
  - (c) Nodal tachycardia
  - (d) Digoxin with its toxicity

- 94. Cardiogenic embolism occurs in which of the following arrhythmias?**
- (a) Ventricular extrasystole
  - (b) Ventricular tachycardia
  - (c) Complete heart block
  - (d) Sick sinus syndrome
- 95. All the following antiarrhythmic drugs increase digoxin levels except**
- (a) Quinidine
  - (b) Propafenone
  - (c) Amiodarone
  - (d) Flecainide
- 96. Clinical clues for AV dissociation are all except**
- (a) Irregular cannon 'a' wave
  - (b) Variable intensity of S1
  - (c) Beat to beat changes in systolic blood pressure
  - (d) Variable splitting of S2
- 97. Multifocal atrial tachycardia is usually seen in all the following except**
- (a) COPD
  - (b) IHD
  - (c) Myocarditis
  - (d) Valvular heart disease
- 98. Most common cause of sudden cardiac death in young**
- (a) HCM
  - (b) Aortic stenosis
  - (c) Aortic regurgitation
  - (d) Mitral stenosis
- 99. Best drug for management of atrial fibrillation with heart failure**
- (a) Digoxin
  - (b) Carvedilol
  - (c) Combination of digoxin + Carvedilol
  - (d) Atenolol
- 100. Which of the following arrhythmias originate in Purkinje fibers?**
- (a) VT
  - (b) Idiopathic ventricular tachycardia
  - (c) Torsades de pointes
  - (d) RVOT tachycardia
- 101. In which ventricular arrhythmia can catheter ablation be used?**

- (a) Sustained monomorphic ventricular tachycardia
- (b) Polymorphic VT
- (c) Ventricular fibrillation
- (d) Polymorphic VT (non sustained)

**102. Commonest arrhythmia in athletes is**

- (a) Sinus bradycardia
- (b) 1 Degree AVB
- (c) Mobitz type 1 block
- (d) Sinus arrhythmia

**103. All are electrical diseases related to atrial fibrillation except**

- (a) SSS
- (b) Tachycardia induced
- (c) Familial
- (d) Brady cardia induced

**104. Common valves diseases associated with Atrial fibrillation are all except**

- (a) Mitral stenosis
- (b) Mitral regurgitation
- (c) TR
- (d) Aortic stenosis

**105. All following SVT have long PR interval except**

- (a) Atrial tachycardia
- (b) Permanent junctional tachycardia
- (c) Atypical AVNRT
- (d) Typical AVNRT

**106. All are mechanisms of cardiac arrest except**

- (a) Asystolic
- (b) VF
- (c) AF
- (d) Electromechanical dissociation

**107. Recovery from cardiac arrest following hours of resuscitation may occurs in all the following conditions except**

- (a) Hypothermia
- (b) Barbiturate overdose
- (c) Electrocutation
- (d) Following acute massive pulmonary embolism

- 108. 1 Degree AVB in infective endocarditis is caused by all except**
- (a) Extension of infection in conducting system
  - (b) Focal myocarditis
  - (c) Ring abscess
  - (d) Enhanced parasympathetic activity
- 109. Which anti lipidemic agent may cause torsades depontes?**
- (a) Gemfibrozil
  - (b) Fenofibrate
  - (c) Statins
  - (d) Probucal
- 110. All are risk factors for sudden cardiac death except**
- (a) Multiple infarctions
  - (b) LVEF < 35 %
  - (c) LVH
  - (d) Atrial fibrillation
- 111. Presence of atrial fibrillation in aortic regurgitation suggest all the following except**
- (a) Infective endocarditis
  - (b) Mitral stenosis
  - (c) Heart failure
  - (d) Mitral regurgitation
- 112. Which is most pro arrhythmic antiarrhythmic drug?**
- (a) Quinidine
  - (b) Amiodarone
  - (c)  $\beta$ -blockers
  - (d) Mexiletin
- 113. Which anti arrhythmic has no pro arrhythmic effect?**
- (a)  $\beta$ -blockers
  - (b) Mexiletin
  - (c) Propafenone
  - (d) Amiodarome
- 114. Ischemic VT most commonly arises from**
- (a) Left ventricular and left ventricular side of IVS
  - (b) Right ventricular side of IVS
  - (c) RBBB
  - (d) LBBB
- 115. Most effective drug for letral ventricular arrhythmia is**

- (a)  $\beta$ -blocker                      (b) Amiodarone  
(c) Procaenamide                    (d) Disopremide

**116. Mono morphic repetitive VT has all following features except**

- (a) Usually benign  
(b) More common in females  
(c) Originate in right ventricular out flow tract  
(d) Verapamil is contraindicated

**117. Cardio version is only help full in which cardiac arrhythmia?**

- (a) AVNRT  
(b) AVRT  
(c) Ectopic atrial tachyarryhthmia  
(d) Atrial fibrillation

**118. Following anti arrhythmic are anti sympathetic except**

- (a) Propafenone                    (b) Bretylium  
(c) Sotalol                            (d) Phenyton

**119. High probability of induction of sustained VT on EP study are except**

- (a) Post myocardial infarction with unexplained syncope  
(b) LVEF < 30 %  
(c) Left ventricularaneurysm  
(d) Frequent VES

**120. Most uncommon feature of vasode pressor syncope is**

- (a) Sudden fall in PVR thus blood pressure  
(b) Return of consciousness if individual returns flat with legs elevated  
(c) Injuries are uncommon  
(d) Bradycardia < 50 %

**121. The most common cause of sino atrial block is**

- (a) Increasevagal tone in response to digoxin  
(b) Acute infections  
(c) Hyperkalemia  
(d) Quinidine therapy

- 122. Most frequent mechanism of S-A attack in CHB is**
- (a) Asystole
  - (b) VT
  - (c) VF
  - (d) Electromechanical dissociation
- 123. Epididymoorchitis can occur with which antiarrhythmic?**
- (a) Lidocaine
  - (b) Quinidine
  - (c) Mexiletin
  - (d) Amiodarone
- 124. Commonest tachycardia in WPW is**
- (a) AVRT
  - (b) Atrial fibrillation
  - (c) Atrial flutter
  - (d) VF
- 125. ECG finding diagnostic of VT in wide QRS tachycardia is**
- (a) Totally negative precordial concordance (V1-V6)
  - (b) A-V dissociation
  - (c) Positive concordance
  - (d) Fusion beat
- 126. Contraindication to lidocaine therapy are all except**
- (a) 1 degree AVB
  - (b) II / III degree AVB
  - (c) Idioventricular rhythm
  - (d) Sick sinus syndrome
- 127. Which neurological disease is contraindication to quinidine therapy?**
- (a) Polyneuritis
  - (b) G.B. syndrome
  - (c) Myasthenia gravis
  - (d) Muscular dystrophy
- 128. Which antiarrhythmic is contraindicated in porphyria?**
- (a) Quinidine
  - (b) Procainamide
  - (c) Amiodarone
  - (d)  $\beta$ -blockers
- 129. Which type of ventricular ectopic is associated with highest mortality?**
- (a) Salvs
  - (b) Bigemini
  - (c) R on T
  - (d) LV ectopics

- 130. All the following are late complications of pacemaker implantation except**
- (a) Pace maker failure
  - (b) Lead fracture
  - (c) Battery depletion
  - (d) Cardiac perforation
- 131. Which of the following does not damage the implanted pace maker?**
- (a) MRI
  - (b) Therapeutic radiation
  - (c) Digital cellular phones
  - (d) All of the above
- 132. All the following totally inhibit pace maker except**
- (a) MRI
  - (b) Cellular phones
  - (c) Electro cautery
  - (d) Radio frequency ablation
- 133. All the following increases pace maker rate except**
- (a) MRI
  - (b) Cellular phones
  - (c) Electrocautery
  - (d) Defibrillation
- 134. Most common AV conduction ratio in atrial-flutter is**
- (a) 1 : 1
  - (b) 2 : 1
  - (c) 3 : 1
  - (d) 5 : 1
- 135. Commonest cause of bi-directional tachycardia is**
- (a) Digitalis
  - (b) Acute myocardial infarction
  - (c) Cardiomyopathy
  - (d) Myocarditis
- 136. Idioventricular tachycardia is found in all except**
- (a) Acute myocardial infarction
  - (b) Digitalis toxicity
  - (c) During reperfusion
  - (d) DCMP

- 137. In which of the following arrhythmia carotid sinus massage has no effect?**
- (a) RBBB
  - (b) LBBB
  - (c) II Degree AVB
  - (d) CHB
- 138. What is optimal ventricular rate in atrial fibrillation by rate control drugs on rest?**
- (a) Resting VR 100/m
  - (b) Resting VR < 90/m
  - (c) Exercise VR < 100/m
  - (d) Exercise VR < 110/m
- 139. Atrial fibrillation after cardiac surgery has all the following features except**
- (a) Occurs in 30% cases
  - (b) For precaution  $\beta$ -blockers most effective
  - (c) Related to long cross clamp time
  - (d) Digoxin is most effective for termination of aortic failure
- 140. Which of the following anti arrhythmic has maximum negative inotropic effect?**
- (a) Quinidine
  - (b) Disopyramide
  - (c)  $\beta$ -blocker
  - (d) Procainamide
- 141. All the following arrhythmia can occur in young with out heart disease except**
- (a) VT
  - (b) SVT
  - (c) SB
  - (d) Sinus pauses < 2 sec
- 142. In atrial fibrillation all the following are correct except**
- (a) Atrial rate > 400/m
  - (b) Atrial rhythm regular
  - (c) AVB is variable
  - (d) VR is usually 100 – 140/m
- 143. Low risk atrial fibrillation following feature except**
- (a) No recent heart failure
  - (b) No previous embolism
  - (c) No hypertension
  - (d) < 60 years of age

- 144. What is the target INR value for oral anticoagulation in atrial fibrillation?**
- (a) < 2                      (b) 2.5 - 2.9  
(c) 3                            (d) > 5
- 145. Auscultatory hall mark of CHB**
- (a) Variable intensity of S1  
(b) Mid systolic murmur  
(c) Normal splitting  
(d) Normal intensity of S2
- 146. Which class of drugs are choice for conversion of acute paroxysm of atrial fibrillation?**
- (a) Class IA                    (b) Class IB  
(c) Class IC                    (d) Class IV
- 147. All the following factors are involved for recurrence of atrial fibrillation except**
- (a) Duration > 1 - 3 years  
(b) Age > 60 years  
(c) Large LA size > 55 mm  
(d) Underlying for acute myocardial infarction
- 148. Drug of choice for prevention of post cardiac surgery atrial fibrillation is**
- (a)  $\beta$ -blockers                (b) Ca-blockers  
(c) Disopyramide            (d) Amiodarone
- 149. All the following of PVCs suggest cardiac abnormality except**
- (a) QRS duration of 0.18 seconds or more  
(b) Variable coupling and interectopic interval  
(c) Multifocal VES  
(d) VES with LBB patterns and vertical axis
- 150. Which of the following feature of atrial premature best is likely to initiate atrial fibrillation?**
- (a) Inter palated  
(b) 'P' wave with abnormal common  
(c) P-R interval is longer than P-R interval  
(d) Coupling index is < 0.50

- 151. Atrial paroxysmal tachycardia with block occurs in all except**
- (a) Digitalis toxicity
  - (b) CAD
  - (c) Rheumatic heart disease
  - (d) Pericarditis
- 152. All are common causes of total electrical alternans in cardiac tamponade except**
- (a) Malignancy
  - (b) Tuberculosis
  - (c) SLE
  - (d) Purulent
- 153. 1° AV block occurs in all the following congenital heart disease except**
- (a) PDA
  - (b) VSD
  - (c) ASD
  - (d) Ebsteins anomaly
- 154. Which of following drug can induce torsedes de pointes?**
- (a) Quinidine
  - (b) Lidocaine
  - (c) Propafenone
  - (d) Mexiletine
- 155. Vagal maneuvers are not tried in which SVT?**
- (a) A symptomatic
  - (b) With mild heart failure
  - (c) With moderate heart failure
  - (d) With severe heart failure
- 156. Commonest arrhythmia after mustard procedure is**
- (a) Sick sinus disease
  - (b) Atrial flutter
  - (c) VPS
  - (d) VT
- 157. Which arrhythmia is frequently terminated by vagal manoeuvres?**
- (a) Atrio ventricular node reentry tachycardia
  - (b) AVRT
  - (c) VT
  - (d) Atrial flutter
- 158. All the following arrhythmia need urgent cardioversion/ defibrillation except**
- (a) VF
  - (b) Hypotension VT
  - (c) AF with fast VR
  - (d) Asystolic

- 159. Which arrhythmia requires least energy shock as effective procedure?**
- (a) VT
  - (b) Atrial fibrillation
  - (c) Atrial flutter
  - (d) Ventricular fibrillater
- 160. QT interval is prolonged in which ventricular tachycardia?**
- (a) Bundle branch block re-etry tachycardia
  - (b) RVOT tachycardia
  - (c) Polymorphic VT
  - (d) Torsade – depointes
- 161. Verapamil is effective in which type of VT?**
- (a) RVOT VT                      (b) Polymorphic
  - (c) Torsade depointes (d) Scan related VT
- 162. Which of the following SVT is AV node dependence?**
- (a) Atrial tachycardia
  - (b) Atrial fibrillation
  - (c) Multifocal atrial tachycardia
  - (d) AVNRT
- 163. 3 or more types of 'P' wave morphology is found in which of the following?**
- (a) Atrial fibrillation
  - (b) Atrial flutter
  - (c) Multi focal atrial tachycardia
  - (d) All the above
- 164. DC shock is not required in all the following VTS except**
- (a) Sustained monomorphic with no symptoms / no hemodynamic compromise
  - (b) Non sustained VT
  - (c) Idioventricular tachycardia
  - (d) Sustained polymorphic VT
- 165. Which antiamythonic drug is removed likely by hemodialysis?**
- (a) Sotalol                      (b) Quinidine
  - (c) Lidocaine                      (d) Propafenone

- 166. Which antiarrhythmic has no proarrhythmia property?**
- (a) Sotalol (b) Quinidine  
(c) Bretylium (d) Flecainide
- 167. Most potent Na-channel blocker is**
- (a) Quinidine (b) Procainamide  
(c) Disopyramide (d) Flecainide
- 168. All following anti arrhythmics increase energy required for defibrillation except**
- (a) Lidocaine (b) Phenyloin  
(c) Amiodarone (d) Procainamide
- 169. All following anti arrhythmics drugs have no effect on pacing-threshold except**
- (a) Amiodarone (b) Sotalol  
(c) Tocainide (d) Propafenone
- 170. Most common mechanism of sustained VT is**
- (a) Enhanced automaticity  
(b) Re-entry  
(c) Trigger activity early after depolarization  
(d) Trigger activity–delayed after depolarization
- 171. Which is most common sustained cardiac arrhythmia?**
- (a) PVCs  
(b) Atrial fibrillation  
(c) 1 degree AV block  
(d) AVNRT
- 172. Most common mechanism for paroxysmal atrial fibrillation is**
- (a) Local ectopic activity  
(b) Single circuit re-entry  
(c) Multiple circuit re-entry  
(d) None of above
- 173. Atrial fibrillation in association with MV disease often has which mechanism**
- (a) Local ectopic activity  
(b) Multiple circuit re-entry  
(c) Single circuit re-entry  
(d) All the above

- 174. Which arrhythmia requires least energy Shock as effective procedure?**
- (a) VT
  - (b) Atrial fibrillation
  - (c) Atrial flutter
  - (d) Ventricular fibrillation
- 175. Which adrenergic receptors indicate pro-arrhythmia response?**
- (a)  $\beta_1$
  - (b) B2
  - (c)  $\alpha_1$
  - (d) All the above
- 176. All following arrhythmia have cannon 'a' waves except**
- (a) AVNRT
  - (b) AVRT (WPW)
  - (c) Ventricular flutter
  - (d) 1° AV block
- 177. Which arrhythmia has highest ventricular Rate (VR)**
- (a) Atrial flutter
  - (b) VT
  - (c) Reciprocating tachycardia due to COPW
  - (d) Ventricular failure
- 178. Normal ventricular rate (60–100/m) are usually found with all following except**
- (a) 1° AV block
  - (b) RBBB
  - (c) LBBB
  - (d) Aortic failure
- 179. Which arrhythmia has paradoxical splitting of S2?**
- (a) RBBB
  - (b) LBBB
  - (c) 1° AV block
  - (d) Atrial flutter
- 180. Hypertension in new born is caused by all except**
- (a) Renal artery stenosis
  - (b) Coarctation of aortic
  - (c) Broncho pulmonary dysplasia
  - (d) Wilm's tumor
- 181. Which CHB does not require permanent pacing in absence of symptoms?**
- (a) Congenital CHB
  - (b) Acquired CHB
  - (c) Atrial flutter with CHB
  - (d) Neuromuscular disease with CHB

- 182. Carotid sinus massage may terminate which of the following arrhythmia?**
- (a) Sinus tachycardia
  - (b) AVRT
  - (c) AVNRT
  - (d) Atrial flutter
- 183. Mechanism for torsade pointes is**
- (a) Enhanced automaticity
  - (b) Triggered activity
  - (c) Re-entry
  - (d) All the above
- 184. Commonest arrhythmia in digoxin intoxication extrasystole**
- (a) Ventricular
  - (b) VT
  - (c) AVB 2 degree
  - (d) Atrial flutter
- 185. Most common mechanism of ventricular arrhythmia is**
- (a) Increase automaticity
  - (b) Triggered activity
  - (c) Re-entry
  - (d) All the above
- 186. Most common causes for re-entrant PVC is**
- (a) Ischemia
  - (b) Drug-induced
  - (c) Myocarditis
  - (d) Physiological
- 187. All following are clinical presentations of SSS except**
- (a) Severe persistent sinus bradycardia
  - (b) sinus pauses > 3 sec
  - (c) BTS
  - (d) Aortic failure with VR between 100–140/m
- 188. Which valvular lesion does not cause sudden cardiac death?**
- (a) MVP
  - (b) Aortic stenosis
  - (c) Mitral regurgitation
  - (d) All of the above
- 189. All following drugs can produce sudden cardiac death except**
- (a) Antiarrhythmics
  - (b) Antidepressants
  - (c) Major tranquilisers
  - (d)  $\beta$ -blockers

- 190. All following congenital heart diseases produce sudden cardiac death except**
- (a) Fallots tetralogy
  - (b) Congenital long QT syndrome
  - (c) Congenital CHB
  - (d) ASD secundum
- 191. All following electrolyte disturbance produce sudden cardiac death except**
- (a) Hyperkalemia
  - (b) Hypernatremia
  - (c) Hypomagnesaemia
  - (d) Hypercalcemia
- 192. Supraventricular arrhythmia are commonly encountered in all the following congenital heart disease except**
- (a) ASD
  - (b) VSD
  - (c) Ebstein's disease
  - (d) MVP
- 193. In which SVT the organic heart disease is rare?**
- (a) AVRT
  - (b) Seversnode
  - (c) Atrial
  - (d) Automatic atrial techycardia
- 194. Functional BBB is common is**
- (a) AVRT
  - (b) AVNRT
  - (c) SNRT
  - (d) ART
- 195. All following antiarrhythmia are safe or relatively safe during pregnancy except**
- (a) Lidocain
  - (b) Digoxin
  - (c) Quinidine
  - (d) Phenytoin
- 196. Ischemia during gestation the treatment of choice is**
- (a) Nitrate
  - (b) Ca-antagonists
  - (c)  $\beta$ -blockers
  - (d) All of the above
- 197. Which cardiac arrhythmia is associated with S4?**
- (a) Supraventricular tachycardia
  - (b) Short PR interval
  - (c) Prolonged PR interval
  - (d) Sinus arrhythmia

**198. Which diet may produce torsade de pointes?**

- (a) Single sodium diet
- (b) High potassium diet
- (c) low carbohydrate diet
- (d) Liquid protein diet

**199. Subnodal conduction is improved by**

- (a) Atropine
- (b) Exercise
- (c) Carotid sinus massage
- (d) None of the above

**200. AV nodal conduction is worsened by**

- (a) Atropine
- (b) Exercise
- (c) Carotid sinus massage
- (d) None of the above

**201. Mobitz II block never occurs due to block at**

- (a) AVN
- (b) His bundle
- (c) Right bundle branches
- (d) None of the above

**202. MAC frequently occur in all except**

- (a) Elderly male
- (b) Diabetic
- (c) Hypertensive
- (d) Renal failure

**203. Larger doses of digoxin is required in which atrial arrhythmia to block AVN?**

- (a) Atrial tachycardia
- (b) Atrial flutter
- (c) Atrial fibrillation
- (d) All the above

**204. Atrial flutter occurring without prior heart disease suggests**

- (a) Alcohol use
- (b) Pregnancy
- (c) Smoking
- (d) Pulmonary embolism

**205. All the following are medications for treatment of sinus bradycardia except**

- (a) Palpitation
- (b) < 50 /m

- (c) Hypertension  
(d) Ventricular arrhythmia
- 206. The starting dose of atropine should be to avoid paradoxical bradycardia**
- (a) 0.2 mg (b) 0.3 mg  
(c) 0.4 mg (d) 0.6 mg
- 207. Clinical cardioversion of atrial fibrillation with normal heart may be achieved by all except**
- (a) Flecainide (b) Propafenone  
(c) Ibutilite (d) Sotalal
- 208. All the following are mechanism of abnormal impulse formation for genesis of cardiac arrhythmia except**
- (a) Abnormal automaticity  
(b) Delayed after depolarization  
(c) Early after depolarization  
(d) Reflection
- 209. Which is most valuable part of cardiac cycle when if PVC falls may result in ventricular tachycardia / fibrillation**
- (a) Descending limb of QRS  
(b) ST segment  
(c) Beginning of T wave  
(d) Apex of T wave
- 210. Which duration of sinus pause warrant careful clinical assesment of the patient**
- (a) 1.5 sec (b) 1.75 sec  
(c) 2.5 sec (d) > 3.0 sec
- 211. Which anti arrhythmic drug has no effect on PR interval?**
- (a) Quinidine (b) Tocainide  
(c) Flecainide (d)  $\beta$ -blockers
- 212. Maximum prolongation of PR interval occurs with**
- (a) IA (b) Ic  
(c) II (d) III
- 213. QRS duration is prolonged by all the following except**
- (a) IA (b) Ic  
(c) III (d) 1B

- 214. Atrial fibrillation is often found in which cause of pulmonary hypertension**
- (a) Eisenmenger syndrome
  - (b) Pulmonary veno occlusive disease
  - (c) Primary pulmonary hypertension
  - (d) Mitral stenosis
- 215. LBBB often found in which of the following causes of pulmonary hypertension?**
- (a) Mitral stenosis
  - (b) Dilated cardiomyopathy
  - (c) COPD
  - (d) Pulmonary veno occlusive disease
- 216. Most common sustained dysrhythmic disorder is**
- (a) Atrial fibrillation
  - (b) AVNRT
  - (c) Atrial flutter
  - (d) 1° AV block
- 217. Patients with pacemakers should observe following precautions except**
- (a) MRI is contraindicated
  - (b) Analog cellular phone or digital cellular phone with power out < 300 at least 20 cm away from their pace maker
  - (c) Ultrasound is contraindicated
  - (d) None of the above
- 218. DDD pacing is indicated in which of the following?**
- (a) AV node disease
  - (b) Sinus node dysfunction
  - (c) Both of the above
  - (d) None of the above
- 219. AAI pacing is particularly indicated in**
- (a) AV block
  - (b) BTS with AVN disease
  - (c) Severe sinus bradycardia with AVN disease
  - (d) SSS with normal AVN
- 220. Biventricular pacing is indicated is**
- (a) HCM
  - (b) DCM
  - (c) Both of the above
  - (d) None of the above

- 221. Pace maker mediated tachycardia is treated by all the following except**
- (a) Spontaneous reversion
  - (b) Program DVI
  - (c) Program VVI
  - (d) Apply a magnet to block atrial tracking
- 222. In reciprocating tachycardia complicating WPW all the following agents are avoided except**
- (a) Digoxin
  - (b) Verapamil
  - (c) Diltiazem
  - (d) DC shock
- 223. Most frequent mechanism of digitalis induced arrhythmia is**
- (a) Enhanced automaticity
  - (b) Re-entry
  - (c) Delayed after depolarization
  - (d) Early after depolarization
- 224. Atrial premature depolarization may be treated with all except**
- (a) Sedation
  - (b)  $\beta$ -blockers
  - (c) Digoxin
  - (d) Quinidine
- 225.  $\beta$ -blockers are usually successful in treatment of symptomatic premature ventricular depolarization related to all the following except**
- (a) Occurs in stressful situation
  - (b) MVP
  - (c) Thyrotoxicosis
  - (d) Cardiomyopathy
- 226. All are reversible causes of bradycardia except**
- (a) Drug induced
  - (b) Electrolyte disturbance
  - (c) Sick sinus syndrome
  - (d) Hypothyroidism
- 227. All are features of atrial fibrillation in anterior myocardial infarction except**
- (a) Usually occurs after 24 hrs.
  - (b) Minimal preceding atrial ectopics
  - (c) After fast ventricular response
  - (d) Does not respond to anti arrhythmic

- 228. All are features of atrial fibrillation in inferior myocardial infarction except**
- (a) Often occurs early
  - (b) Frequent atrial ectopics preceding AF
  - (c) After fast ventricular rate
  - (d) Resistant to anti arrhythmia
- 229. Slow VT has all the following features except**
- (a) Occurs in acute myocardial infarction
  - (b) Usually resolves in 24-48 hrs.
  - (c) Treatment is always needed
  - (d) As a marker of reperfusion
- 230. RFA is least effective in which arrhythmias?**
- (a) Paroxysmal atrial fibrillation
  - (b) AVRT
  - (c) AVNRT
  - (d) Atrial flutter
- 231. RFA is most effective in all except**
- (a) AVRT
  - (b) AVNRT
  - (c) Uncircled atrial fibrillation
  - (d) Sustained VT
- 232. Most common arrhythmia after coronary surgery is**
- (a) Atrial fibrillation
  - (b) VE
  - (c) VT
  - (d) AV-block
- 233. RBBB in coronary artery disease indicates**
- (a) Single vessel stenosis disease
  - (b) Multi vessel stenosis disease
  - (c) Good prognosis
  - (d) None
- 234. What is clinical importance of QRS duration in LBBB?**
- (a) No importance
  - (b) Good prognosis
  - (c) Poor LVEF
  - (d) All of the above
- 235. RAD with LBBB indicates**
- (a) LV enlargement
  - (b) RV enlargement
  - (c) RA enlargement
  - (d) None
- 236. Presence of coronary artery disease in LBBB is best known by**

- (a) Exercise stress testing or treadmill
- (b) Exercise perfusion scintigraphy
- (c) Pharmacologic stress echo
- (d) None of these

**237. LBBB usually occurs in the following conditions except**

- (a) LVH
- (b) Myocardial infarction
- (c) None of the above
- (d) Both (a) and (b)

**238. Clinical Signs of LBBB includes**

- (a) S1 increase
- (b) S2 increase
- (c) Reverse splitting of S2
- (d) Presence of S3

**239. Which murmur may be formed by LBBB**

- (a) ESM in AA
- (b) EDM in AA
- (c) PSM of mitral regurgitation
- (d) PSM of TR

**240. Poor prognosis in LBBB is related to**

- (a) Reverse splitting of S2
- (b) Frontal plane QRS axis
- (c) Absence of 8 weeks in left precordial leads
- (d) Concordant ST-T wave changes

**241. Cardiac syncope has all following feature except**

- (a) Time of convulsion after 30<sup>th</sup> sec
- (b) Recovery rapid
- (c) Post ictal amnesia present
- (d) Pulse is present

**242. rSR in V1 with LAD 'P' wave indicated which type of ASD**

- (a) SV defect
- (b) PFO
- (c) OS ASD
- (d) OP ASD

**243. rSR in V1 with LAD of QRS indicates which type of ASD**

- (a) OS ASD
- (b) OP ASD
- (c) PFO
- (d) SV ASD

- 244. rSR in V1, LAD of 'P' and QRS indicates**
- (a) SV defect
  - (b) OP defect
  - (c) OS defect
  - (d) Single atrium
- 245. In which cardiac disorder sinus arrhythmia is absent?**
- (a) PDA
  - (b) ASD
  - (c) PS
  - (d) AS
- 246. Best drug to maintain normal sinus rhythm in patients with recurrent atrial fibrillation is**
- (a)  $\beta$ -blockers
  - (b) Amiodarone
  - (c) Sotalol
  - (d) Quinidine
- 247. Which is the distinctive combination ECG in gerboda's defect?**
- (a) Right and left atrial hypertrophy
  - (b) Left atrial hypertrophy with LVH
  - (c) RA hypertrophy with LVH
  - (d) RA hypertrophy with RVH
- 248. At present what is status of a rhythmic control or rate control in atrial fibrillation**
- (a) Rhythmic control is better
  - (b) Rate control is better
  - (c) Both are same
  - (d) None of the above
- 249. Recent onset atrial fibrillation < 48 hrs choice of treatment is**
- (a) Amiodarone
  - (b) DC Shock
  - (c) Ibutilide
  - (d) All of the above
- 250. Stroke rate in AF is reduced by oral anti-coagulation in which percentage of patients**
- (a) 30 %
  - (b) 40 %
  - (c) 50 %
  - (d) 70 %
- 251. In post operative atrial fibrillation when to give anticoagulation**
- (a) Immediately
  - (b) If atrial fibrillation persists for 12 hrs.
  - (c) If atrial fibrillation persists for 24 hrs.
  - (d) If atrial fibrillation persists more than 48 hrs.

**252. All inhaled is up streamer therapy in atrial fibrillation except**

- (a) Targeting substrate development mechanism
- (b) Reaming angiotensin systure nihilism present fibrosis this present AF
- (c) ARBS also present promotion of AF by severe mechanism
- (d) Prevention of AF by amiodarane

**253. Which part of conducting system usually deprived of automaticity?**

- (a) SA node
- (b) Atrial connecting tissue
- (c) AV node
- (d) His purkinje system

**254. Prognosis in ventricular arrhythmia is linked to all the following except**

- (a) Sustained
- (b) LV dysfunction degree of reduced EF
- (c) Etiology of interlaying heart disease
- (d) Age of patients

**255. Best Anti arrhythmic in presence of EF < 30 %**

- (a) Amiodarone      (b) Quinidine
- (c)  $\beta$ -blockers      (d) Mexiletine

**256. Carotid sinus message is not rescanned in all the following except**

- (a) Carotid disease      (b) Elderly
- (c) Digitalis toxicity      (d) Hyperthyroidism

**257. Adenosin assist in diagnosis of all the following except**

- (a) Latest WPW type A
- (b) Atrial flutter
- (c) Wide QRS tachycardia to be ventricular or supraventricular
- (d) Straggle line AF with atrial paralysis

**258. Clinical defibrillator in VF is**

- (a) Quinidine      (b) Lidoeaine
- (c) Bretyeium tasylate      (d) Amiodarone

- 259. Which hypolipidemic agent causes prolongation of QT interval?**
- (a) Statins (b) Fibrates  
(c) Resins (d) Probucal
- 260. Which antibiotic prolongs QT interval?**
- (a) Penicillin (b) Streptomycin  
(c) Sulphenamide (d) Erythromycin
- 261. Which of the following antihypertensive prolongs QT interval?**
- (a) Metoprolol (b) ACE inhibitor  
(c) Atenolol (d) Sotalol
- 262. Effective drug for reducing VR in AF is**
- (a)  $\beta$ -blocker (b) Verapamil  
(c) Diltiazem (d) Amioderone
- 263. Sinus bradycardia usually levels to which arrhythmia**
- (a) Atrial ectopies  
(b) Ventricular ectopies  
(c) Sinus tachycardia  
(d) Atrial fibrillation
- 264. Multifocal atrial tachycardia is caused by all the following except**
- (a) Severe systemic hypoxia  
(b) Hypercapnia  
(c) Acidosis  
(d) All the above
- 265. Av junctional rhythm may cause all the following except**
- (a) Loud S1  
(b) Short PR interval  
(c) Cannon A waves in jugular venous  
(d) S2 Split is abname
- 266. Idioventricular tachycardia occurs in all the following except**
- (a) Digitalis intoxication  
(b) Reperfusion after myocardial infection  
(c) Acute myocardial infarction  
(d) Cardiomyopathy

- 267. All following antiarrhythmia produce nembopenia except**
- (a) Phenytoin
  - (b) Propranolol
  - (c) Quinidine
  - (d) Moricizine
- 268. Which antiarrhythmia may causes oplastic anemia?**
- (a) Quinidine
  - (b) Cardiac tampon
  - (c) Amlodorane
  - (d) Phenytion
- 269. Treatment of choice of hemodynamically unstable atrial flutter is**
- (a) High energy DC shock
  - (b) Low energy DC shock
  - (c) Verapamil
  - (d) Class Ic agents
- 270. DC shock is not indicated is**
- (a) Atrial fibrillation
  - (b) VT
  - (c) Ventricular fibrillation
  - (d) Torsade De pointes
- 271. ECG changes in brugada syndrome are all except**
- (a) RBBB
  - (b) ST elevation V1-V3 (Particulary V2)
  - (c) Prolonged QT
  - (d) Polymorohic VT
- 272. Treatment of choice in bundle branch re-entrant ventricular tachycardia is**
- (a) Amiodarone
  - (b) Procainamide
  - (c) Radio frequency ablation
  - (d) Sotalal
- 273. Which drug is used to unmask brugada syndrome ECG features?**
- (a) Procainamide
  - (b) Mexiletine
  - (c) Phenytoin
  - (d) Digitalis
- 274. Wandering atrial pacemaker has all the following features except**
- (a) Usually with lung disease
  - (b) In Elderly may be due to SSS
  - (c) HR > 100
  - (d) Significant respiratory arrhythmia

- 275. All are common arrhythmias in VSD in myocardial infarction except**
- (a) CHB
  - (b) Sinus bradycardia
  - (c) Atrial fibrillation
  - (d) BBB
- 276. Sinus bradycardia usually occurs in all the following except**
- (a) SSS
  - (b) Inferior myocardial infarction
  - (c) Post cardiac transplant
  - (d) Restrictive cardiomyopathy
- 277. Most common cause of PAT with block is**
- (a) IHD
  - (b) CMP
  - (c) Valvular heart disease
  - (d) Digoxin toxicity
- 278. Rare cause of non paroxysmal junctional tachycardia is**
- (a) Digoxin toxicity
  - (b) Congenital heart disease
  - (c) Inferior myocardial infarction
  - (d) Open heart surgery
- 279. Multifocal atrial tachycardia has all the following features except**
- (a) 3 or more different morphology of 'P' waves in single lead
  - (b) Variable PR interval
  - (c) Variable S1
  - (d) Variable S2 splitting
- 280. Most frequent digitalis effect on ECG is**
- (a) Reversed correct sign
  - (b) Increased U wave amplitude
  - (c) Shortened QT
  - (d) QT prolongation
- 281. Best drug for prevention of Ischemic VT**
- (a) ACE inhibitors
  - (b)  $\beta$ -blockers
  - (c) Calcium blockers
  - (d) All are similar
- 282. Which of the following drug is used for treatment of ischemic VT?**
- (a) Ca-blockers
  - (b)  $\beta$ -blockers
  - (c) ACE inhibitors
  - (d) All of the above

- 283. Increased LV potentials are found in all the following except**
- (a) LV enlargement
  - (b) LBBB
  - (c) Elderly without heart disease
  - (d) Obese normal persons
- 284. Median time for termination of AVNRT by verapamil is**
- (a) 120 Sec.
  - (b) 150 Sec.
  - (c) 80 Sec.
  - (d) 100 Sec.
- 285. The most frequent digitalis induced sustained arrhythmia is**
- (a) Ventricular arrhythmia
  - (b) Atrio ventricular block
  - (c) Atrial tachycardia
  - (d) None of the above
- 286. Atropine increases which of the following block?**
- (a) 1° AV block
  - (b) Mobitz type I
  - (c) Mobitz type II
  - (d) All of the above
- 287. In exercise induced AV block the usual site of block is**
- (a) Atrial conducting system
  - (b) AV node
  - (c) Intraventricular conducting system
  - (d) All of the above
- 288. AV block during sleep is more often of which type?**
- (a) 1° AV block
  - (b) Mobitz type I
  - (c) Mobitz type II
  - (d) Advanced AV block
- 289. Most common site of 1 degree AV block is**
- (a) Atrium
  - (b) AV node
  - (c) Ventricle
  - (d) All of the above
- 290. Brady tachycardia syndrome in SSS manifest most commonly as**
- (a) Sinus bradycardia with paroxysmal atrial fibrillation
  - (b) Sinus bradycardia with atrial flutter
  - (c) Sinus bradycardia with sinus tachycardia
  - (d) Sinus bradycardia with atrial tachycardia

- 291. Class IV antiarrhythmic agent prolongs which of the following?**
- (a) PR interval
  - (b) QRS duration
  - (c) QT interval
  - (d) None of the above
- 292. Class IA agents maximally prolong which of the following**
- (a) PR interval
  - (b) QRS duration
  - (c) QT interval
  - (d) None of the above
- 293. Alternation of QRS in narrow QRS tachycardia is most likely due to**
- (a) Atrial tachycardia
  - (b) Sinus tachycardia
  - (c) AVNRT
  - (d) AVRT using accessory pathway for ventriculoatrial conduction
- 294. Sudden cardiac death most often occurs in**
- (a) Dilated CMP
  - (b) 1st year following myocardial infarction
  - (c) HCM
  - (d) Large QT syndrome
- 295. Sudden cardiac death in asymptomatic aortic stenosis may be caused by all except**
- (a) Ventricular tachyarrhythmia
  - (b) Ventricular asystolic
  - (c) CHB
  - (d) EMD
- 296. Best drug for preventing PSVT in WPW syndrome is**
- (a) Amiodarone
  - (b) Sotalol
  - (c) Verapamil
  - (d) Digoxin
- 297. In CHB the wide pulse pressure is due to**
- (a) Large stroke volume
  - (b) Decreased peripheral resistance
  - (c) Both of the above
  - (d) None of these
- 298. DC shock induced myocardial damage is minimized by all except**

- (a) IV Calcium gluconate
- (b) Low energy shock
- (c) Biphasic wave form
- (d) Antioxidants

**299. Which antiarrhythmic is avoided during lactation?**

- (a) Amiodarone      (b) Verapamil
- (c) Digoxin          (d) Diltiazem

**300. Which SVT responds best to catheter ablation?**

- (a) Atrial fibrillation   (b) AVNRT
- (c) AAT                  (d) Atrial flutter

**301. Which arrhythmia treated by catheter has highest recurrence rate?**

- (a) Atrial fibrillation
- (b) Atrial flutter
- (c) AV reciprocating tachycardia
- (d) AVNRT

**302. Commonest indication for permanent pacemaker implantation is**

- (a) Sinus node dysfunction
- (b) AV block
- (c) Hypersensitive carotid sinus
- (d) Tachy arrhythmias

**303. All are non cardiac causes of atrial fibrillation except**

- (a) Hyperthyroidism
- (b) Hyperparathyroidism
- (c) Idiopathic
- (d) Pulmonary disease

**304. All the following are the myocardial substrate of arrhythmogenesis in heart failure except**

- (a) Ischemia              (b) Hypertrophy
- (c) Fibrosis              (d) Myocyte loss

**305. Serum K<sup>+</sup> levels should be in which range to prevent sudden cardiac death in ischemic cardiomyopathy**

- (a) 3.5 – 4 meq/L      (b) 4.5 – 5 meq/L
- (c) 4.0 – 4.2 meq/L   (d) 5 – 5.5 meq/L

- 306. All the following arrhythmias are more common in females than males except**
- (a) ANRT
  - (b) Torsades de pointers
  - (c) Post MI AF
  - (d) AV blocks
- 307. Most common chronic arrhythmia is**
- (a) Atrial flutter
  - (b) Functional tachycardia
  - (c) 1 degree AV block
  - (d) Atrial fibrillation
- 308. Which arrhythmia does not need anticoagulation?**
- (a) Atrial fibrillation
  - (b) Atrial flutter
  - (c) Multifocal atrial tachycardia
  - (d) Bradytachycardia syndrome
- 309. Sinus rhythm is restored in atrial flutter by which drug**
- (a) Amiodarone
  - (b) Propafenone
  - (c) Diltiazem
  - (d) Disopyramide
- 310. Which type of atrial flutter is most common?**
- (a) Isthmus dependent counter clock wise rotation
  - (b) Isthmus dependent clock wise rotation
  - (c) Non isthmus dependent
  - (d) All the above
- 311. Which cardiovascular response is most common in carotid sinus hyper-sensitivity?**
- (a) Cardio inhibitor response
  - (b) Vasodepressor response
  - (c) Mixed
  - (d) All the above
- 312. Most sensitive marker of cardiac effect tricyclic antidepressants is**
- (a) QT prolongation
  - (b) QRS prolongation
  - (c) Rightward deviation of terminal to MS of QRS (terminal R wave in aVR)
  - (d) Ventricular arrhythmias

**313. Goal of slowing of heart rate at rest in atrial fibrillation is**

- (a) 60 – 80/m (b) 50 – 70/m  
(c) 85 – 90/m (d) 80 – 100/m

**314. Goal of slowing the heart rate on moderate exercise in atrial fibrillation is**

- (a) 90 – 115/m (b) 116 – 120/m  
(c) 70 – 80/m (d) 120 – 130/m

**315. Which drug does not control exercise induced increased VR in atrial fibrillation?**

- (a) Digoxin (b) Diltiazem  
(c) Verapamil (d) Beta-blockers

**316. Most common site of electrical alternans is**

- (a) 'P' wave (b) QT interval  
(c) QRS complex (d) 'T' wave

**317. Fusion beats are Found in all except**

- (a) Parasystole  
(b) VT  
(c) Advanced AV block  
(d) 1 degree AV block

**318. All are frequent causes of A-V dissociation except**

- (a) Acute myocardial infarction  
(b) Digitalis toxicity  
(c) Acute rheumatic fever  
(d) Myocarditis

**319. Which ECG change strongly support the LVH in LBBB?**

- (a)  $SV_2 + RV_5 > 45$  mm  
(b) QRS duration  $\geq 0.14$  sec  
(c) Left atrial enlargement  
(d) Left axis deviation

**320. Most frequent ventricular rate in VT is**

- (a) 100/m (b)  $\leq 80$ /m  
(c) 130 – 170/m (d)  $> 200$ /m

**321. Majority of SVT's are**

- (a) Reentrant (b) Ectopic  
(c) Triggered Activity (d) All the above

- 322. Which tachycardia is little or not affected by exercise?**
- (a) Atrial flutter
  - (b) Atrial fibrillation
  - (c) Automatic atrial tachycardia
  - (d) All the above
- 323. Which drug does not cause CHB?**
- (a) Digoxin
  - (b) Quinidine
  - (c) Procainamide
  - (d) Mexiletine
- 324. Which valvular heart disease is associated with CHB?**
- (a) Mitral stenosis
  - (b) Aortic stenosis
  - (c) Tricuspid regurgitation
  - (d) Pulmonary regurgitation
- 325. Most common type of AV block is?**
- (a) 1 Degree AV block
  - (b) 2 Degree mobitz I
  - (c) 2 Degree mobitz II
  - (d) CHB
- 326. Shortening of PR interval occurs with all following except**
- (a) Exercise
  - (b) Sympathmimetic drugs
  - (c) Atropine
  - (d) Atrial pacing
- 327. Sick sinus syndrome usually manifest by all the following except**
- (a) Angina
  - (b) Syncope
  - (c) Heart failure
  - (d) Fatigue
- 328. Which cardiac vascular disorder is not usually associated with advanced AV block?**
- (a) Aortic stenosis
  - (b) Aortic regurgitation
  - (c) Mitral stenosis
  - (d) Hypertension
- 329. All following arrhythmia cause thrombo-embolism except**
- (a) Atrial fibrillation
  - (b) Atrial flutter

- (c) Complete AV block
- (d) Sick sinus syndrome

**330. Spontaneous Diastolic Depolarization is the Result of the following except**

- (a) Interval current of  $\text{Na}^+$
- (b) Interval current of  $\text{Ca}^{++}$
- (c) Interval current of a + b
- (d) Interval current of  $\text{K}^+$

**331. Normally sinus bradycardia occurs in all the following except**

- (a) Athletes
- (b) Elderly
- (c) Pregnancy
- (d) None of the above

**332. Which endocrine disorder causes sinus bradycardia?**

- (a) Hyperthyroidism
- (b) Hypothyroidism
- (c) Diabetes mellitus
- (d) Hyperparathyroidism

**333. All following antiarrhythmics have hepatic route of elimination except**

- (a) Amiodarone
- (b) Diltiazem
- (c) Beta-Blocker
- (d) Bretylium

**334. All are clinical signs of VT except**

- (a) Intermittent cannon a wave in neck veins
- (b) Varying 1<sup>st</sup> heart sound
- (c) Varying systolic blood pressure
- (d) Pressure of murmur

**335. Small pulse volume with bradycardia is found in**

- (a) SSS
- (b) Myxedema
- (c) CHB
- (d) All the above

**336. Best lead of choice for identifying frequency PVC'S**

- (a) L11
- (b) L111
- (c) V1
- (d) aVL

**337. All following are intrinsic causes of sinus node dysfunction except**

- (a) Degenerative
- (b) Ischemic
- (c) Hypertension
- (d) Hypothyroidism

- 338. All following antiarrhythmics cause sinus node dysfunction except**
- (a) Class IA                      (b) Class IB  
(c) Class IC                      (d) Class II
- 339. Most Common mechanism of monomorphic VT is**
- (a) Triggered                      (b) Focal  
(c) Re-entry                      (d) All the above
- 340. All following electrolytes abnormalities may cause sudden cardiac death except**
- (a) Hypokalemia  
(b) Hypomagnesaemia  
(c) Hypermagnesemia  
(d) Hypernatremia
- 341. All following valvular heart disease may cause sudden cardiac death except**
- (a) Aortic stenosis  
(b) Aortic regurgitation  
(c) Mitral valve prolapse  
(d) Mitral stenosis
- 342. All following electrolytes abnormalities are associated with sudden cardiac death except**
- (a) Hypokalemia                      (b) Hypernatremia  
(c) Hypomagnesaemia                      (d) Hypocalcaemia
- 343. All following agents can cause sudden cardiac death except?**
- (a) Cisapride                      (b) Cocaine  
(c) Chloroquine                      (d) Statins
- 344. Which antiarrhythmia are concentrated in Breast Milk?**
- (a) Nadalol                      (b) Sotalol  
(c) Atenolol                      (d) Tocainide
- 345. Which antiarrhythmic has maximum protein binding property?**
- (a) Amiodarone                      (b) Lidocaine  
(c) Flecainide                      (d) Procainamide
- 346. All following cardiomyopathy cause sudden cardiac death except**

- (a) Right ventricular cardiomyopathy
- (b) Idiopathic dilated cardiomyopathy
- (c) Hypertrophy cardiomyopathy
- (d) None of the above

**347. In accelerated idioventricular rhythm the site of origin is**

- (a) AV node
- (b) Pulmonary veins
- (c) Bundle branches
- (d) Purkinje fibres

**348. Site of origin in torsades de-pointes is**

- (a) Atria
- (b) AV node
- (c) Ventricles
- (d) Bundle branches

**349. Amiodarone should be combine with which drug?**

- (a) Digoxin
- (b) Thiazide diuretics
- (c) Amiodipine
- (d) All the above

**350. Which anti arrhythmia is choice during pregnancy and ventricular tachycardia?**

- (a) Mexiletine
- (b) Amiodarone
- (c)  $\beta$ -blockers
- (d) Lidocaine

**351. DDDR Pacemaker is Indicated in**

- (a) AV block advanced
- (b) SN dysfunction
- (c) Hypersensitive carotid sinus
- (d) Combined SN and AV node disease

**352. Write function of pacemaker has following features except**

- (a) Voltage threshold high
- (b) Current threshold variable
- (c) Lead impedance high
- (d) Electrocardiogram normal always

**353. Insentation break in pacemaker system has all following features except**

- (a) Voltage threshold low
- (b) Current threshold high
- (c) Lead impedance low
- (d) Electrogram normal (always)

- 354. All are complication of AICD use except**
- (a) Lead dislodgement
  - (b) Lead fracture
  - (c) Insulation defect
  - (d) Ventricular fibrillation
- 355. All are cardiac indication for AICD implantation**
- (a) Old myocardial infarction
  - (b) Recurrent myocardial infarction
  - (c) Frequent episodes of tachycardia
  - (d) Non sustained tachycardia
- 356. Leads dislodgment of pacemaker system featured by all except**
- (a) Voltage threshold high
  - (b) Current threshold low
  - (c) Lead impedance low
  - (d) Electrogram low
- 357. Exit block in pacemaker system is featured by all except**
- (a) Voltage threshold normal
  - (b) Current threshold high
  - (c) Lead impedance normal
  - (d) Electrogram normal
- 358. Electrophysiological effects of digoxin at toxic concentration is to increase effective refractory period all following except**
- (a) Atrium
  - (b) AVN
  - (c) Purkinje fibres
  - (d) Ventricles
- 359. Triboelection phenoment has all following features except**
- (a) High voltage deflection gestated by static electricity
  - (b) Usually wider than pacemaker stimulus
  - (c) Usually irregular than pacemaker stimulus
  - (d) Short over stoot
- 360. Paced QRS duration ( $\geq 190$  m sec) in RV pacing is indicative of**
- (a) Predictor of heart failure
  - (b) Predictor of mortality
  - (c) Predictor of development of atrial fibrillation

- (d) Predictor of development of VT
- 361. Prolongation of spike to QRS onset occurs in all following except**
- (a) Development of anterior myocardial infarction
  - (b) Severe myocardial disease
  - (c) Hyokalemia
  - (d) Variant angina
- 362. Paced QRS alternans occurs in all the following except**
- (a) Respiratory fluctuations
  - (b) Pericardial effusion
  - (c) Mechanical pulsus alternance
  - (d) All the above
- 363. All following antiarrhythmic block sympathetic nerves system activity except**
- (a) Bretylium
  - (b) Amiodarone
  - (c) Mexiletine
  - (d) Verapamil
- 364. All following antiarrhythmics prolong refractoriness of accessory pathways except**
- (a) Quinidine
  - (b) Procainamide
  - (c) Disopyramide
  - (d) Verapamil
- 365. Atrial refractoriness is prolonged by all the following except**
- (a) Quinidine
  - (b) Procainamid
  - (c) Disopyramide
  - (d) Verapamil
- 366. Hisbundle refractoriness is prolonged all the following except**
- (a) Bretylium
  - (b) Amiodarone
  - (c) Verapamil
  - (d) Sotalol
- 367. Which antiarrhythmic drug decrease refractory period of ventricles?**
- (a) Quinidine
  - (b) Procainamid
  - (c) Disopyramide
  - (d) Mexiletine
- 368. Which drug decrease refractiveness of AV node?**
- (a) Quinidine
  - (b) Procainamide
  - (c) Disopyriamide
  - (d) Propranolol/Propafenone

- 369. Which drug has maximum protein binding capacity?**
- (a) Diltiazem (b) Procainamide  
(c) Propranolol (d) Doleazem
- 370. Most common arrhythmia by digitalis intoxication is**
- (a) Premature ventricular beats  
(b) Premature atrial beats  
(c) Atrial tachycardia with block  
(d) Ventricular tachycardia
- 371. Which antiarrhythmic drug shortens action potential duration?**
- (a) Quinidine (b) Procainamide  
(c) Disopyramide (d) Propranolol
- 372. All following antiarrhythmics shortens action potential duration except**
- (a) Lidocaine (b) Phenytoin  
(c) Eucaine (d) Amiodarone
- 373. All the following metabolic and electrolyte disorders are commonly associated with supraventricular tachycardia except**
- (a) Thyrotoxicosis  
(b) Pheochromocytoma  
(c) Hypokalemia  
(d) Hyperkalemia
- 374. All the following neoplastic disorders are associated with SVT except**
- (a) Leukemia (b) Lymphoma  
(c) Breast cancer (d) Liver tumors
- 375. Fast inward current of action potential has all following characteristics except**
- (a) Main ion is  $\text{Na}^+$   
(b) Rate of activation and deactivation is Rapid  
(c) Resting membrane potential is 60–70 mv  
(d) Recovery prompt
- 376. Slow inward current of action potential has all following features except**

- (a) Main ion is  $\text{Ca}^{++}$
- (b) Rate of activation and deactivation is slow
- (c) Resting membrane potential is  $-30$  to  $-40$  mv
- (d) Recovery outlasts repolarization

**377. Calcium blockers are used in all the following except**

- (a) Hypertension
- (b) HCM
- (c) DCM
- (d) Cardiac arrhythmia

**378. AVN effective refractory period is most affected by**

- (a) Verapamil
- (b) Nifedipine
- (c) Nimodipine
- (d) Felodipine

**379. Ventricular effective refractory period is affected by**

- (a) Bepridil
- (b) Verapamil
- (c) Diltiazem
- (d) All of these

**380. Which Ca antagonist prolongs QRS interval?**

- (a) Verapamil
- (b) Nifedipine
- (c) Diltiazem
- (d) Bepridil

**381. Which Ca antagonist prolongs QTc interval?**

- (a) Bepridil
- (b) Diltiazem
- (c) Verapamil
- (d) Nimodipine

**382. HV interval is prolonged by which calcium antagonists?**

- (a) Verapamil
- (b) Diltiazem
- (c) Bepridil
- (d) Nimodipine

**383. Effective refractory period of His Purkinje is affected by**

- (a) Bepridil
- (b) Diltiazem
- (c) Verapamil
- (d) All the above

**384. In all following AV block the common type of block is**

- (a) Wide QRS III degree
- (b) Wide QRS II degree or greater
- (c) Type second degree
- (d) I Degree AV block

- 385. All following are the metabolic causes of chronic infranodal block except**
- (a) Myxedema
  - (b) Thyrotoxicosis
  - (c) Pagets disease
  - (d) Diabetes
- 386. All are ECG signs indication of electrical arrhythmogenic disease except**
- (a) Long QT syndrome
  - (b) Short QT syndrome
  - (c) Brugada syndrome
  - (d) Decrease global T
- 387. Site of block in congenital complete heart block is**
- (a) Above his bundle
  - (b) His bundle
  - (c) Bundle branches
  - (d) Purkinje system
- 388. Which is the auscultating hall mark of complete heart block?**
- (a) Systolic murmur
  - (b) Slow rate
  - (c) Regular rhythm
  - (d) Variation in intensity of first heart sound
- 389. Which prokinetic agent prolongs QT interval?**
- (a) Cisapride
  - (b) Mozapride
  - (c) Etopride
  - (d) All the above
- 390. Which electrolyte disorder does not prolong QT interval?**
- (a) Hypokalemia
  - (b) Hypocalcaemia
  - (c) Hypomagnesaemia
  - (d) Hyponatremia
- 391. All following antibiotics prolong QT interval except**
- (a) Erythromycin
  - (b) Trimethoprin – Sulfamethoxazole
  - (c) Ampicillin
  - (d) Levofloxacin
- 392. All following antihistaminic prolong QT interval except**
- (a) Astemizole
  - (b) Levocetizine
  - (c) Terfenadine
  - (d) None of these

- 393. All following antipsychotics prolong QT interval except**
- (a) Haloperidol
  - (b) Chlorpromazine
  - (c) Thioridazine
  - (d) Duloxetine
- 394. Which arrhythmia is uncommon in aortic regurgitation?**
- (a) Bundle branch block
  - (b) Ventricular arrhythmia
  - (c) AV blocks
  - (d) Atrial fibrillation
- 395. Major mechanism of paroxysmal atrial fibrillation is**
- (a) Focal source around pulmonary veins
  - (b) Multiple wavelets
  - (c) Nodal re-entry
  - (d) None of above
- 396. Commonest complication of catheter ablation in atrial fibrillation**
- (a) CVA
  - (b) Pulmonary vein stenosis
  - (c) Atrial macro re-entrant tachycardia
  - (d) None of these
- 397. Most common cause of sudden death in young athlete is**
- (a) Aortic stenosis
  - (b) HCM
  - (c) Long QT syndrome
  - (d) Primary pulmonary hypertension
- 398. In all following arrhythmia role of cardio versionis little or none except**
- (a) Ectopic atrial tachycardia
  - (b) Multifocal atrial tachycardia
  - (c) Torsade de pointes
  - (d) AVNRT
- 399. Arrhythmia in arrhythmogenic right ventricular dysplasia usually arise from all following sites except**
- (a) RVOT
  - (b) RVIT
  - (c) Apex
  - (d) LV

**400. Arrhythmias are very common in**

- (a) Cortical brain lesion
- (b) Internal capsule lesion
- (c) Caudate lesion
- (d) Brain stem lesion

**401. Which is arrhythmogenic cardiogenic brain embolism?**

- (a) PAT
- (b) CHB
- (c) SSS
- (d) 1 degree AV block

**402. All are non gastrointestinal presentation of cardiac disease except**

- (a) Osteoporosis
- (b) Long stature
- (c) Delayed puberty
- (d) Arthritis

**403. Electrical alternans is a good prognosis sign in**

- (a) Slow sinus rhythms
- (b) Rapid sinus rhythms
- (c) Ectopic tachycardia
- (d) Follow premature systolic

**404. The most common alternating ratio in electrical alternans is**

- (a) 2 : 1
- (b) 3 : 1
- (c) 4 : 1
- (d) 5 : 1

**405. Which is the most common form of electrical alternans?**

- (a) QRS
- (b) P
- (c) T wave
- (d) ST segment

**406. Total electrical alternans is found in all the following except**

- (a) Malignant effusion
- (b) Tuberculosis
- (c) SLE effusion
- (d) Viral effusion

**407. The alternation is related to all the following except**

- (a) Cardiac position
- (b) Alternation of cardiac output
- (c) Alternating progression of refractory phase of heart
- (d) Respiratory variation in HR

**408. The hall mark of PAC is**

- (a) PR interval long
- (b) PR<sup>1</sup> interval short
- (c) Compensatory pause in less than full
- (d) Compensatory pause often full

**409. Commonest cause of ventricular tachycardia is**

- (a) IHD (b) CMP
- (c) Valvular heart disease
- (d) Myocarditis

**410. Which is the commonest arrhythmia in holiday heart syndrome?**

- (a) Ventricular extrasystoles
- (b) AVNRT
- (c) AV block
- (d) Atrial fibrillation

**411. Most important clinical significance of prolonged QT interval is**

- (a) Ventricular fibrillation
- (b) CHB
- (c) Supraventricular tachycardia
- (d) Electromechanical dissociation

**412. All following VTS don't require electrical shock except**

- (a) Accelerated idioventricular rhythm
- (b) Non sustained VT (with in 48 hr. MI)
- (c) Sustained VT without haemodynamic compromise
- (d) Sustained polymorphic VT

**413. Which VT presents with prolonged QT interval?**

- (a) RVOT VT
- (b) Arrhythmogenic RV cardiomyopathy VT
- (c) Scar related VT
- (d) Torsade de points

**414. Which SVT is AV node dependent?**

- (a) Sinus tachycardia (b) AVRT
- (c) Atrial fibrillation (d) MAT

**415. Drug of choice in idiopathic ventricular tachycardia from left ventricular septum**

- (a) IV  $\beta$ -blockers (b) IV Verapamil
- (c) IV Amiodarone (d) IV Xylocaine

- 416. Which part of conducting system is not automatic?**
- (a) Sinus node
  - (b) AV node
  - (c) His purkinje system
  - (d) None of these
- 417. Which antiarrhythmic does not causes tor-sade depointes?**
- (a) Quinidine
  - (b) Procainamide
  - (c) Lidocaine
  - (d) Disopyramide
- 418. Which antiarrhythmic causes gingival hyperplasia?**
- (a) Lidocain
  - (b) Phenytoin
  - (c) Amiodarane
  - (d) Digoxin
- 419. In presence of atrial fibrillation the highest risk of thromboembolism is in which situation**
- (a) Previous TIA / Stroke
  - (b) DM
  - (c) Hypertension
  - (d) Heart failure
- 420. Most common cause of atrial stand still**
- (a) Digitalis intoxication
  - (b) Quinidine toxicity
  - (c) Terminal stages of myocardial infarction
  - (d) Carbon dioxide toxicity
- 421. At which ventricular rate cardiac output usually drops**
- (a) 120/m
  - (b) 140/m
  - (c) 160/m
  - (d) > 180/m
- 422. Most common cause of atrial dissociation**
- (a) Intractable heart failure
  - (b) Hypertension
  - (c) Uraemia
  - (d) Rheumatic heart disease
- 423. Which congenital cardiac disease produce LBBB**
- (a) Aortic stenosis
  - (b) Aortic regurgitation
  - (c) VSD
  - (d) PDA

- 424. All are functions of magnet in patient of AICD system except**
- (a) Defibrillator activation
  - (b) No deactivation of defibrillator
  - (c) Routine battery checkup
  - (d) Creation of defibrillator backup mode to allow electrophysiological testing
- 425. PR interval is short in all the following conditions except**
- (a) WPW syndrome
  - (b) Levine ganong syndrome
  - (c) Nodal rhythm
  - (d) CHB
- 426. All are K<sup>+</sup> Channel blockers except**
- (a) Amiodarone
  - (b) Adenosine
  - (c) Bretyllium
  - (d) Sotalol
- 427. Bradycardia/AVB maximally occurs with which drug**
- (a)  $\beta$ -blocker
  - (b) Diltiazem
  - (c) Verapamil
  - (d) Nitrates
- 428. Commonest arrhythmia for permanent pacing is**
- (a) SSS
  - (b) AVB
  - (c) Tachyarrhythmia
  - (d) Drug induced AV block
- 429. Atrial fibrillation most commonly occurs in**
- (a) Mitral stenosis
  - (b) Mitral regurgitation
  - (c) Mitral stenosis + Mitral regurgitation
  - (d) None of these
- 430. All following antiarrhythmic drugs need no adjustment of dose in renal failure except**
- (a) Quinidine
  - (b) Procainamide
  - (c)  $\beta$ -blocker
  - (d) Calcium channel blocker

- 431. Permanent pacing is indicated in congenital complete heart block in all the following situation except**
- (a) CHF
  - (b) Wide QRS escape rhythm
  - (c) H/o syncope
  - (d) Absence of ventricular arrhythmia
- 432. Commonest cardiac cause of sudden cardiac death is**
- (a) IHD
  - (b) HCM
  - (c) Dilated CMP
  - (d) RV dysplasia
- 433. All are narrow QRS tachycardia except**
- (a) Atrial fibrillation
  - (b) Atrial flutter
  - (c) Multifocal atrial tachycardia
  - (d) Paroxysmal atrial tachycardia
- 434. All following are safe agents in patients with EF < 30% except**
- (a) Amiodarone
  - (b) Mexiletine
  - (c)  $\beta$ -blockers
  - (d) Verapamil
- 435. Which of the following agents has least proarrhythmia incidence?**
- (a) Encainide
  - (b) Flecainide
  - (c) Amiodarone
  - (d) Quinidine
- 436. Most common arrhythmia requiring treatment is**
- (a) Sinus tachycardia
  - (b) SSS
  - (c) CHB
  - (d) Atrial fibrillation
- 437. Loud AZ in VSD occurs in all the following except**
- (a) TOF
  - (b) Coarctation of aorta
  - (c) Bicuspid aortic valve
  - (d) None of the above
- 438. Which is rare parasystole?**
- (a) Atrial
  - (b) Ventricular
  - (c) Junctional
  - (d) Combined atrial and ventricular parasystole

- 439. Electrical alternans is grave prognostic sign in**
- (a) SB
  - (b) ST
  - (c) Ectopic tachycardial
  - (d) Normal rates
- 440. Which is commonest parasystole?**
- (a) Atrial
  - (b) Ventricular
  - (c) Junctional
  - (d) Double parasystole
- 441. Commonest cause of atrial flutter is**
- (a) Rheumatic heart disease
  - (b) IHD
  - (c) Hypertension
  - (d) ASD
- 442. Which of the following arrhythmia is not caused by digitalis toxicity?**
- (a) PAT with block
  - (b) Alternating VES
  - (c) Atrial fibrillation
  - (d) Multifocal atrial tachycardia
- 443. Common cause of parasystole is**
- (a) CHF
  - (b) HCM
  - (c) RCM
  - (d) Pericardial disease
- 444. All following are the most frequent causes of AV dissociation except**
- (a) Digitalis toxicity
  - (b) Inferior myocardial infarction
  - (c) Anterior myocardial infarction
  - (d) Acute rheumatic fever
- 445. Prior temporary pacing required in which type of A-V block prior to elective surgery**
- (a) 1 Degree AVB
  - (b) Mobitz type I
  - (c) Mobitz type II
  - (d) RBBB with LAHB
- 446. Drug induced sycpe occurs by all except**
- (a)  $\beta$ -blockers
  - (b) Gangtion blockers
  - (c) Bromocriptine
  - (d) Ca-blocker
- 447. Which antiarrhythmic agent has maximum negative inotropic effect?**
- (a) Mexiletin
  - (b) Amiodarone
  - (c) Disopyramide
  - (d) Quinidine

- 448. Which cause of atrial fibrillation can cause sudden cardiac death?**
- (a) Valvular heart disease
  - (b) Cardiomyopathy
  - (c) IHD
  - (d) WPW
- 449. Crochetage patten in ECG is found in**
- (a) OS ASD
  - (b) TAPVD
  - (c) PAPVD
  - (d) PDA
- 450. Most common cause of paraxymal supra-ventricular tachycardia**
- (a) Atrial fibrillation
  - (b) AVRT
  - (c) AVNRT
  - (d) Atrial tachycardia
- 451. Commonest tachyarrhythmia in WPW syndrome**
- (a) AVRT
  - (b) Atrial fibrillation
  - (c) Atrial flutter
  - (d) Ventricular flutter
- 452. LBBB occurs more commonly in**
- (a) LVH
  - (b) MI
  - (c) DCMP
  - (d) Pericardial disease
- 453. Most cases of intermittent LBBB are due to**
- (a) Aortic stenosis
  - (b) LVH
  - (c) Ischaemic
  - (d) Dilated CMP
- 454. Drug of choice for ventricular arrhythmia due to digitalis**
- (a) Phenyntion
  - (b) Lidocaine
  - (c) KCIIV
  - (d) Quinidine
- 455. Which arrhythmia is related to degree of LV dysfunction?**
- (a) AV block
  - (b) Atrial tachycardia
  - (c) Ventricular arrhythmias
  - (d) Atrial fibrillation
- 456. Which arrhythmia may cause polyurea?**
- (a) SVT
  - (b) Atrial fibrillation
  - (c) Ventricular tachycardia
  - (d) CHB

- 457. Typical ischaemic chest pain occurs with which arrhythmia?**
- (a) Sinus bradycardia
  - (b) Atrial fibrillation
  - (c) VES
  - (d) Ventricular tachycardia
- 458. Which arrhythmia likely causes syncope?**
- (a) Ventricular extrasystole
  - (b) Ventricular tachycardia
  - (c) 1 Degree AV block
  - (d) AVNRT
- 459. Which is least common arrhythmia in athletes?**
- (a) Mobitz Type I block
  - (b) Mobitz Type II block
  - (c) Sinus arrhythmia
  - (d) Sinus bradycardia
- 460. Most common congenital heart disease associated with WPW**
- (a) HCM
  - (b) ASD
  - (c) Ebstein's anomaly
  - (d) None of these
- 461. Which atrial tachyarrhythmia is not caused digitalis toxicity?**
- (a) AVNRT
  - (b) Atrial flutter
  - (c) Atrial fibrillation
  - (d) Atrial tachycardia with block
- 462. Post tachycardia syndrome has all features except**
- (a) Wide spread T inversion
  - (b) Last for 2 - 7 days
  - (c) Mechanism not known
  - (d) Indicates underlying heart disease
- 463. All are indication of cardioversion in atrial fibrillation except**
- (a) Haemodynamic collapse
  - (b) VR controlled by drugs
  - (c) Systemic embolization
  - (d) VR uncontrolled by drugs

- 464. Which AV ratio is most common in multifocal atrial tachycardia?**
- (a) 1 : 1                      (b) 2 : 1  
(c) 3 : 1                      (d) 4 : 1
- 465. Most common manifestation of SSS is**
- (a) SM  
(b) Pauses  
(c) Atrial fibrillation slow VR with out drug  
(d) Brady – Tachy < Syndrome
- 466. How frequent is AV nodal disease with SSS?**
- (a) 20 %                      (b) 30 %  
(c) 40 %                      (d) 50 %
- 467. Most common mechanism of stokes – adam attacks in CHB is**
- (a) Asystole                      (b) VT  
(c) VF                              (d) EMD
- 468. All following ECG patterns are strongly suggestive of acute corpulmonale except**
- (a) S1, Q3, T3 pattern with T inversion right precordial leads  
(b) S1, T3 pattern  
(c) S1, Q3, T3 pattern with RBBB  
(d) Normal QRS axis
- 469. All following may happen to Q wave in L1, L2 avL in uncomplicated LBBB except**
- (a) Absent in L1 and avL  
(b) If present in L-1 physiological  
(c) If present in avL – pathological  
(d) In L2 present
- 470. LVH in presence LBBB ECG reveals all the following except**
- (a)  $V2S + V5R = 45$  mm or more  
(b) LAE  
(c) QRS duration 0.14 in sec or more  
(d) QRS duration  $\geq 0.12$
- 471. Which is the least common cause of syncope**
- (a) Metabolic                      (b) CNS  
(c) Cardiac                        (d) Vasovagal

**472. Drug of choice for ventricular arrhythmia in heart failure**

- (a) Quinidine
- (b) Disopyramide
- (c) Procainamide
- (d) Amiodarone

**473. Drug of choice for PSVT in haemodynamically unstable patient is**

- (a) Diltiazem
- (b) Adenosine
- (c)  $\beta$ -blockers
- (d) Digoxin

**474. Most SVTS are caused by**

- (a) Re-entry
- (b) Enhanced automaticity
- (c) Triggered activity
- (d) None of these

**475. Fine atrial fibrillation often occurs in all the following except**

- (a) Coronary heart disease
- (b) Thyrotoxicosis
- (c) Hypertensive heart disease
- (d) None of these

**476. Most common cause of atrial standstill**

- (a) Digoxin toxicity
- (b) Quinidine toxicity
- (c) Hyperkalemia
- (d)  $O_2$  toxicity

**477. Which arrhythmia causes long QT interval?**

- (a) Sinus bradycardia
- (b) Sinus tachycardia
- (c) Ventricular tachycardia
- (d) AVNR

**478. Which VT with LBBB pattern has good prognosis without treatment?**

- (a) Post MI VT
- (b) Cardiomyopathic VT
- (c) Sarcoidosis
- (d) RVOT VT with normal heart

**479. Which antilipidemic agent causes long QT interval?**

- (a) Statins
- (b) Fibrates
- (c) Probucal
- (d) Resins

**480. All are class III antiarrhythmic agents except**

- (a) Amiodarone
- (b) Sotalol
- (c) Esmolol
- (d) Bretylium

- 481. Extremely high risk of complication with which mode pacing?**
- (a) Transvenous (b) Transcutaneous  
(c) Transthoracic (d) Transesophageal
- 482. Long PR interval is found in all following tachycardia except**
- (a) Atrial tachycardia  
(b) Sinus node re-entry  
(c) Inappropriate tachycardia  
(d) Typical AVNRT
- 483. Most common cardiac cause of sudden cardiac death is**
- (a) IHD (b) CMP  
(c) WPW (d) RV dysplasia
- 484. All following are causes of SCD except in patients of non structural heart disease**
- (a) Long QT syndrome  
(b) WPW syndrome  
(c) Brugada syndrome  
(d) Idiopathic
- 485. Typical atrial flutter has all following features except**
- (a) Conduction occurring reentry in RA  
(b) Conduction occurring in conilar clock wise dilation  
(c) F waves sawtooth appearance  
(d) Response to antiarrhythmics is good
- 486. Which is the fastest pacing mode?**
- (a) Transcutaneous (b) Transvenous  
(c) Transtharacis (d) Transthoracic
- 487. Most reliable pacing mode is?**
- (a) Trans venous (b) Transesophageac  
(c) Transvenous (d) Transthoracic
- 488. Which is the commonest arrhythmia in hyperthyroidism?**
- (a) Sinus tachycardia (b) Atrial fibrillation  
(c) Atrial ectopics  
(d) Ventricular ectopices
- 489. Which pacing system defect causes high lead impedance?**

- (a) Wire fracture (b) Insulation block  
(c) Lead displacement (d) Exit block

**490. Which pacing system causes normal electrocardiogram?**

- (a) Exit block (b) Lead dislodgement  
(c) Insulation break (d) Wire fractures

**491. VA conduction most frequently occurs in**

- (a) Fascicular block (b) 2 degree AV block  
(c) 3 degree AV block  
(d) Sinus node dysfunction

**492. All are causes of acute complete AV block except**

- (a) Myocardial infarction  
(b) Hyperkalemia  
(c) Hypercalcemia (d) Corrected TGA

**493. All following drugs may causes sinus node dysfunction except**

- (a) Methyldopa (b) Clonidine  
(c) Lithium (d) ACE inhibitors

**494. Which of the pacing system defect cause low voltage threshold?**

- (a) Wire fracture (b) Insulation break  
(c) Lead dislodgement (d) Exit block

**495. Which of the following pacing system defect causes low lead impedance?**

- (a) Insulation break (b) Wire fracture  
(c) Exit block (d) Lead dislodgement

**496. All following are the properties of fast current in cardiac muscle except**

- (a) Na dependent  
(b) Threshold for activation  $-60$  to  $-70$  mv  
(c) Action potential magnitude  $100 - 130$  mv  
(d) Safety factor for conduction low

**497. All are properties of slow current in cardiac muscle except**

- (a) Mainly  $Ca^{++}$  dependent  
(b) Threshold for activation  $30$  to  $-40$  mv  
(c) Conduction velocity  $0.01$  to  $0.1$  m/sec  
(d) Response to stimulus all or none

- 498. Short PR interval is found in all the following except**
- (a) WPW syndrome
  - (b) Ganong levine syndrome
  - (c) Low atrial rhythm
  - (d) Left atrial rhythm
- 499. In ischemic arrhythmia all following mechanism play part except**
- (a) Enhanced automaticity
  - (b) Triggered activity
  - (c) Re-entry
  - (d) Enhanced conduction
- 500. Which is commonest arrhythmia?**
- (a) PVC
  - (b) Atrial fibrillation
  - (c) APC
  - (d) VT
- 501. Which is the commonest arrhythmia?**
- (a) Atrial fibrillation
  - (b) I degree AV block
  - (c) II degree AV block
  - (d) III degree AV block
- 502. All of the following are associated arrhythmia with atrial fibrillation except**
- (a) Partial AV block
  - (b) CHB
  - (c) VES
  - (d) VT
- 503. All are physical signs of atrial fibrillation except**
- (a) Changing HS
  - (b) Pulse deficit
  - (c) Irregularly irregular pulse
  - (d) Neck veins loaves farms are normal
- 504. In atrial fibrillation beat PR interval is**
- (a) Normal
  - (b) Short
  - (c) Long
  - (d) Any of the above
- 505. Which is most common type of electrical alternans?**
- (a) P wave
  - (b) PR interval
  - (c) QRS
  - (d) T
- 506. All following are causes of atrial stand still**
- (a) Hypothermia
  - (b) Copoisoning

- (c) Hypoxia (d) Beta-blockers

**507. All are risk factors for atrial fibrillation except**

- (a) DM (b) HT  
(c) HF (d) Pericardial disease

**508. Congenital complete heart block in new born occurs with**

- (a) Maternal rubella  
(b) Maternal thalidomide use  
(c) Maternal lithium toxicity  
(d) Maternal lupus

**509. Serious ventricular arrhythmia commonly occurs is**

- (a) Congenital aortic stenosis  
(b) VSD  
(c) Pulmonary stenosis  
(d) Fallot's tetralogy

**510. Most common fetal tachyarrhythmia is**

- (a) AV NRT (b) Atrial fibrillation  
(c) AVRT (d) VT

**511. Most common fetal bradyarrhythmia is**

- (a) CHB  
(b) Non conducted atrial ectopic  
(c) Sinus bradycardia  
(d) 1<sup>st</sup> degree AV block

**512. Most syncope are**

- (a) Neurocardiogenic  
(b) Metabolic  
(c) Orthostatic  
(d) Carotid sinus hypersensitivity

**513. Potentially reversible causes of cardiac arrest due to VF**

- (a) Prinzmetal's angina  
(b) Proarrhythmia  
(c) Electrolyte abnormality  
(d) Dilated cardiomyopathy

**514. Rapid recovery occurs with which type of syncope?**

- (a) Cardiac (b) Vasovagal  
(c) Neurogenic (d) Incompetence

**515. Most extensively sustained arrhythmia is**

- (a) Atrial fibrillation
- (b) AVNRT
- (c) VT
- (d) CHB

**516. All following are cause of EMD except**

- (a) Hypovolemia
- (b) Tension pneumothorax
- (c) Cardiac rupture
- (d) Cardiomyopathy

**517. Most common cause of sudden arrhythmia cardiac death**

- (a) Myocardial infarction
- (b) HOCM
- (c) Aortic stenosis
- (d) Brugada syndrome

**518. Idiopathic LV tachycardia has all following features except**

- (a) Relative narrow QRS
- (b) High incidence of false tendons
- (c) Sensitive to verapamil
- (d) Increased incidence of sudden cardiac death

**519. Accelerated idioventricular rhythm has all the features except**

- (a) Usually rate ranges from 40–120/m
- (b) May cause isorhythmic AV dissociation
- (c) Marker for successful reperfusion after thrombolysis
- (d) May be termination by  $\beta$ -blocker

**520. Repetitive monomorphic VT has all following features except**

- (a) Associated with no heart disease
- (b) Provoked by exercise or emotion
- (c) Mostly occurs in young men
- (d) Has RBBB morphology

**521. Repetitive monomorphic VT has all the features except**

- (a) Excellent prognosis
- (b) Best drug for treatment is  $\beta$ -blocker
- (c) Multiple VT morphology
- (d) Catheter ablation is most effective strategy to treat

**522. Ventricular tachycardia in arrhythmogenic right ventricular dysplasia has all following feature**

- (a) LBBB pattern
- (b) SCD occurs
- (c) First line treatment is amiodarone
- (d) Multiple morphologies of VT are absent

**523. How frequent is atrial fibrillation in mitral regurgitation?**

- (a) 10 %
- (b) 20 %
- (c) 30 %
- (d) 50 %

**524. ST segment changes during supraventricular tachycardia has all the features except**

- (a) Probably due to rapid heart rate
- (b) Incomplete filing related
- (c) Due to action potential duration differences between subendo-cardium and epicardium
- (d) Related to myocardial Ischemia

**525. Ectopic atrial tachycardia is caused by all except**

- (a) Acute myocardial infarction
- (b) COPD
- (c) Quinidine toxicity
- (d) CHF

**526. All are causes of asystole except**

- (a) During induction of anesthesia
- (b) Heart block
- (c) VT
- (d) SSS

**527. IV calcium chloride is used in all the following except**

- (a) For treatment of hypotension following over dose of Ca-blocker
- (b) Treatment of hypotension following hyperkalemia
- (c) For treatment of asystole
- (d) None of these

**528. Prevalance of atrial fibrillation maximum in which age group**

- (a) 20 - 40 years
- (b) 40 - 50 years
- (c) 50 - 60 years
- (d) > 60 years

- 529. In indian setting most common cause of atrial fibrillation is**
- (a) Chronic rheumatic heart disease
  - (b) Coronary artery disease
  - (c) Hypertension
  - (d) Dilated CMP
- 530. Commonest risk factor for stroke in atrial fibrillation**
- (a) Previous stroke / TSA
  - (b) Hypertension
  - (c) Heart failure
  - (d) DM
- 531. Highest risk for embolization in atrial fibrillation is in which combination**
- (a) CHF + HT + Advanced age + DM
  - (b) CHF + HT + Advanced age + DM + Previous stroke /TIA
  - (c) CHF + HT + DM + Advanced age + Previous stroke /TIA
  - (d) CHF + HT + DM + Prior stroke / TIA
- 532. Which drug is known to prevent substantial chance of atrial fibrillation in hypertension?**
- (a)  $\beta$ -blocker
  - (b) ACE inhibitor
  - (c) ARBS
  - (d) Diuretics
- 533. First line drug for paroxysmal atrial fibrillation in HT without LVH**
- (a) Flecainide
  - (b) Amiodarone
  - (c) Procainamide
  - (d) Disopyramide
- 534. First line drug for paroxysmal atrial fibrillation with heart failure**
- (a) Amiodarone
  - (b) Procainamide
  - (c) Quinidine
  - (d) Dofetilide
- 535. First line drug for paroxysmal atrial fibrillation with LVH**
- (a) Quinidine
  - (b) Procainamide
  - (c) Amiodarone
  - (d) Flecainamide
- 536. Drug of choice for vagally mediated paroxysmal atrial fibrillation**
- (a) Disopyramide
  - (b) Amiodarone
  - (c) Procainamide
  - (d) Dofetilide

- 537. First line drug for lone paroxysmal atrial fibrillation**
- (a) Flecainide (b) Amiodarone  
(c) Procainamide (d) Quinidine
- 538. First line drug of paroxysmal atrial fibrillation with coronary artery disease is**
- (a) Dofetilide (b) Quinidine  
(c) Procainamide (d) Disopyramide
- 539. Chemical cardioversion of atrial fibrillation may be achieved by all except**
- (a) Class IA (b) Class Ic  
(c) Class III (d) Class IV
- 540. Drug of choice for paroxysmal atrial fibrillation with renal failure**
- (a) Quinidine (b) Procainamide  
(c) Dofetilide (d) Amiodarone
- 541. Drug of choice for paroxysmal atrial fibrillation with liver disease is**
- (a) Procainamide (b) Quinidine  
(c) Sotalol (d) Dofetilide
- 542. Drug of choice for paroxysmal atrial fibrillation with lung disease**
- (a) Sotalol (b) Amiodarone  
(c) Quinidine (d) Fluvastatin
- 543. In all following situation DC cardioversion is contraindicated except**
- (a) Digitalis toxicity  
(b) Multifocal atrial tachycardia  
(c) Automatic atrial tachycardia  
(d) SVT of WPW syndrome
- 544 Which antiarrhythmic agent can produce macrocytic annemia?**
- (a) Quinidine (b) Phenyloin  
(c) Lidocaine (d) Bretyllium
- 545. Which antiarrhythmic is maximally dominated from the body?**
- (a) Lidocaine (b) Procoinaimide  
(c) Disopyramide (d) Phemytom

- 546. Which of the antiarrhythmic drug has active metabolite?**
- (a) Quinidine (b) Disopyramide  
(c) Phenytoin (d) Lidocaine
- 547. Which antiarrhythmic drug causes thrombocytopenia?**
- (a) Procainamide (b) Disopyramide  
(c) Xylocaine (d) Quinidine
- 548.  $\beta$ -blocker has all the following electrophysiological effects except**
- (a) Increase AVN conduction time  
(b) Increase effective refractory period of AVN  
(c) Decrease automaticity in HP system  
(d) Decrease HP system conduction time
- 549. Which of the following is correct regarding lidocaine?**
- (a) Decrease automaticity of HP system  
(b) No effect on atrial conduction time  
(c) No effect AVN conduction time  
(d) No effect on effective refractory period
- 550. Digoxin has all following electrophysiology effects except**
- (a) Atrial contraction time decrease  
(b) Atrial effective refractory period decrease  
(c) AV-Nodal conduction is increased  
(d) His purkinje ventricular conduction time decrease
- 551. Ca-antagonism has all following electrophysiologic effects except**
- (a) His purkinje automaticity increase  
(b) AVN conduction time increase  
(c) AVN effective refractory period increase  
(d) No change in atrial conduction time
- 552. All following arrhythmias may occur when calcification involves the conduction tissue in aortic stenosis except**
- (a) 1 degree AV block (b) Sinus bradycardia  
(c) LBBB (d) CHB

**553. When cardioversion / defibrillation is not indicated**

- (a) VT
- (b) VF
- (c) Torsade De pointes
- (d) AF with rapid VR

**554. In all following arrhythmias cardioversion / defibrillation is not indicated except**

- (a) Torsade De pointes
- (b) Automatic rhythms
- (c) Toxic arrhythmia
- (d) None of these

**555. Organic heart disease is rare in which SVT?**

- (a) AVNR
- (b) Concealed accessory by pass tract
- (c) Sinus node re-entry
- (d) Automatic atrial tachycardia

**556. P-wave affects QRS in which SVT?**

- (a) Sinus node re-entry
- (b) Atrial re-entry
- (c) Automatic atrial tachycardia
- (d) Concealed accessory by pass tract

**557. Functional bundle branch block is common in which SVT?**

- (a) Concealed accessory by pass tract
- (b) Sinus node re-entry
- (c) Automatic atrial tachycardia
- (d) AVNRT

**558. AV-block never occurs in which SVT?**

- (a) SN re-entry
- (b) Atrial re-entry
- (c) Automatic atrial tachycardia
- (d) AVNRT

**559. Cessation of which SVT is unpredictable**

- (a) SN Re-entry
- (b) AVNRT
- (c) Concealed accessory by pass tract
- (d) Automatic atrial tachycardia

- 560. Critical AV conduction time is needed for which SVT?**
- (a) AVNRT
  - (b) Automatic atrial tachycardia
  - (c) SN re-entry
  - (d) Atrial re-entry
- 561. Carotid sinus massage duration should be which one of following?**
- (a) 2 sec
  - (b) 4 sec
  - (c) 6 – 8 sec
  - (d) > 8 < 15 sec
- 562. AV nodal or intraventricular conduction coexist in how may patients of SSS**
- (a) 10 %
  - (b) 25 %
  - (c) 30 %
  - (d) 50 %
- 563. Which arrhythmia is not found in athlete heart syndrome?**
- (a) Sinus bradycardia
  - (b) 1 Degree AV block
  - (c) Mobitz III degree
  - (d) Mobitz III degree
- 564. Most common mechanism in of SVTS is**
- (a) Re-entry
  - (b) Enhanced automaticity
  - (c) Triggered activity
  - (d) None of these
- 565. Which arrhythmia is most successfully ablated?**
- (a) AVNRT
  - (b) AVRT
  - (c) AAT
  - (d) Idiopathic VT
- 566. Which arrhythmia frequently recurs after ablation?**
- (a) AVNRT
  - (b) AVRT
  - (c) AAT
  - (d) Idiopathic VT
- 567. All are cardiac causes pacemaker mediated tachycardia except**
- (a) Atrial fibrillation
  - (b) PSVT
  - (c) Atrial flutter
  - (d) Ventricular conduction time is < the post ventricular atrial refractory period

- 568. All are risk factors for development of digitalis toxicity except**
- (a) Hypokalemia
  - (b) Hypercalcemia
  - (c) Acute pulmonary disease
  - (d) Addison's disease
- 569. All following are the high risk factors for sudden cardiac death except**
- (a) Sudden cardiac death survivors
  - (b) VT with syncope
  - (c) VT with EF < 40%
  - (d) EF < 40%
- 570. In which disease atrial fibrillation is associated with slow VR (not drug induced)?**
- (a) Red
  - (b) Thyrotoxicosis
  - (c) SSS
  - (d) Cardiomyopathy
- 571. Which anti arrhythmic causes Gynecomastia?**
- (a) Verapamil
  - (b) Digoxin
  - (c) Disopyramide
  - (d) Mexiletine
- 572. Which of the block frequently progress to CHB?**
- (a) 1 degree AV block
  - (b) LBBB
  - (c) RBBB
  - (d) RBBB < LPH
- 573. Which block prognosis least to CHB?**
- (a) LAH
  - (b) LPH
  - (c) 1 Degree AV block
  - (d) LBBB
- 574. Which antiarrhythmic may cause syncope?**
- (a) Procainamide
  - (b) Quinidine
  - (c) Digoxin
  - (d) Mexiletine
- 575. Which antiarrhythmia causes corneal deposits?**
- (a) Digoxin
  - (b) Verapamil
  - (c) Amiodarone
  - (d) Quinidine
- 576. All following arrhythmias may lead to atrial fibrillation except**
- (a) AES
  - (b) Atrial flutter
  - (c) SSS
  - (d) AVNRT

- 577. Treatment of choice for symptomatic complete heart block is**
- (a) Thiazide symptomatic
  - (b) Isoprenaline
  - (c) Theophylline
  - (d) Pacemaker
- 578. Systemic embolism is most common in**
- (a) Mitral stenosis with atrial fibrillation
  - (b) Mitral regurgitation with atrial fibrillation
  - (c) Atrial fibrillation alone
  - (d) Aortic stenosis with atrial fibrillation
- 579. Which antiarrhythmic agent can cause pulmonary hypertension?**
- (a) Quinidine
  - (b) Procainamide
  - (c)  $\beta$ -blocker
  - (d) Amiodarone
- 580. Which antiarrhythmic agent can produce SLE?**
- (a) Quinidine
  - (b) Procanamide
  - (c) Disopyramide
  - (d) Amiodarone
- 581. rS complex in avR with  $r \geq 1$  mm is found in**
- (a) Inferior myocardial infarction
  - (b) RVH
  - (c) Posterior myocardial infarction
  - (d) None of the above
- 582. Most frequent type of parasytote is**
- (a) Ventricular
  - (b) Junctional
  - (c) Atrial
  - (d) Atrial + Ventricular
- 583. All following statement regarding parasytote are correct except**
- (a) More common in females
  - (b) Peak incidence over age 60 years
  - (c) Majority of cases have organic heart disease
  - (d) Quinidine was arbalest this arrhythmia
- 584. Verapamil is indicated in all following arrhythmia except**
- (a) For termination of AVNRT
  - (b) For control of VR in atrial fibrillation

- (c) For termination idiopathic RV out flow tract ventricular tachycardia
- (d) Atrial fibrillation of WPW syndrome

**585. Large biphasic spike are seen in**

- (a) Unipolar pacing (b) Bipolar pacing
- (c) Both (a) and (b) (d) None of the above

**586. Most common mechanism of stokesadams affects in CHB is**

- (a) Ventricular asystole
- (b) VT
- (c) VF
- (d) Combination

**587. Majority of mobitz 1 degree AV block are Located in**

- (a) AVN
- (b) Bundle branch
- (c) Purkinje system
- (d) All the above equally

**588. Mobitz type II 2 degree AV block is located in**

- (a) AVN
- (b) His purkinje system
- (c) Intra atrial tracks
- (d) None of these

**589. Captured beat usually has all following features except**

- (a) Premature
- (b) Identical to normal
- (c) Indicates ventricular origin of tachycardia
- (d) Indicates supra ventricular tachycardia

**590. Bradycardia after paroxysmal tachycardia usually does not indicate**

- (a) AAT (b) AVNRT
- (c) AVRT (d) VT

**591. Irregularity of VR in CHB is usually due to**

- (a) Ventricular persistence beat
- (b) Parasystolic
- (c) Two foci for ventricular activation
- (d) Sinus arrhythmia

- 592. Antiarrhythmic of choice in post infarct patients is**
- (a) IV Esmolol
  - (b) IV Digoxin
  - (c) IV Verapamil
  - (d) IV Diltiazem
- 593. Postural tachycardia syndrome occurs in all the following except**
- (a) Day
  - (b) Amyloidosis
  - (c) Alcoholism
  - (d) Ageing
- 594. Most common cause sudden cardiac death in young athlete is**
- (a) HCM
  - (b) AS
  - (c) Congenital coronary anomaly
  - (d) Arrhythmogenic RV
- 595. Which sinus bradycardia carries a poor prognosis?**
- (a) Drug induced
  - (b) Post resuscitation
  - (c) SSS
  - (d) Inferior myocardial infarction
- 596. Which tachyarrhythmia is not responsive to cardiovascular?**
- (a) Atrial flutter
  - (b) Atrial fibrillation
  - (c) VT
  - (d) Ventricular fibrillation
- 597. Most common complication of radio frequency ablation of accessory pathway**
- (a) Cardiac tamponade
  - (b) Coronary artery thrombosis
  - (c) Pericarditis
  - (d) Mild aortic regurgitation
- 598. In which type of VT sudden cardiac death is rare?**
- (a) Idiopathic
  - (b) Polymorphic
  - (c) Sustained monomorphic VT
  - (d) None of the above

**599. Wandering atrial pacemaker has all the following features except**

- (a) Benign
- (b) Usually with underlying lung disease
- (c) Variable S1
- (d) Thealed by Ca-blocker

**600. Ventricular tachycardia has all following features except**

- (a) Myocardial ischemia with compromised EV function
- (b) Stable haemodynamics does not excludect
- (c) Common 'a' waves in neck vein
- (d) Irregular tachycardia

**601. Which is the treatment of choice for guration receprocatary tachycardia (permant)?**

- (a)  $\beta$ -blocker
- (b) Digoxin
- (c) Verapamice
- (d) Radiofrequancy ablation

**ANSWERS**

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## SECTION-4

# ATHEROSCLEROTIC HEART DISEASE, DISEASE OF AORTA AND HYPERTENSION

1. **The complications of myocardial infarction are all except**
  - (a) Pulmonary embolism
  - (b) Systemic embolism
  - (c) Dissection of aorta
  - (d) Ventricular fibrillation
2. **Drug useful in acute myocardial infarction are all except**
  - (a) Nifedepine
  - (b) Aspirin
  - (c) ACE inhibitors
  - (d) Metoprolol
3. **Linked angina in patients of coronary artery disease is used for**
  - (a) Emotion induced angina
  - (b) Gastrointestinal factors induced angina
  - (c) Stress induced angina
  - (d) None of the above
4. **Nocturnal angina may be produced by all except**
  - (a) Redistribution of intravascular blood volume
  - (b) Hypercapnia
  - (c) Augmented sympathetic discharge
  - (d) None of the above
5. **The term angina means**
  - (a) Chest pain
  - (b) Burning in chest
  - (c) Strangling
  - (d) None of the above
6. **First treatment for angina was**
  - (a) Amyl nitrite
  - (b) NTG (Nitroglycerine)
  - (c)  $\beta$ -blockers
  - (d) Alcohol

- 7. In stable angina electrocardiogram is abnormal during anginal pain in**
- (a) 20 %                      (b) 40 %  
(c) 50 %                      (d) 100 %
- 8. Progeria is associated with**
- (a) Coronary atherosclerosis  
(b) Congenital heart disease  
(c) Valvular heart disease  
(d) Pericardial disease
- 9. Risk of coronary artery disease is maximum with**
- (a) Cigarette smoking  
(b) Cigar smoking smoke not inhaled  
(c) Pipe smoking smoke not inhaled  
(d) Tobacco chewing
- 10. Coronary artery plaque vulnerability to rupture depends on**
- (a) Plaque composition  
(b) Plaque size  
(c) Severity of stenosis  
(d) All of the above
- 11. With which antihypertensive agent the sex life is better?**
- (a) Methyldopa              (b)  $\beta$ -blockers  
(c) ACE Inhibitors        (d) Diuretics
- 12. Nitrates are contraindicated in all the following except**
- (a) Large acute anterior infarct  
(b) Acute myocardial infarction with hypotension  
(c) Right ventricular infarction  
(d) None of the above
- 13. Which is the commonest presentation of Ischemic heart disease?**
- (a) Stable angina  
(b) Unstable angina  
(c) Acute myocardial infarction  
(d) Sudden cardiac death
- 14. Commonest drug prescribed in stable angina is**

- (a) Aspirin                      (b)  $\beta$ -blockers  
(c) Statins                        (d) ACE inhibitors
- 15. All following statements regarding atorvastatin are correct except**
- (a) 4<sup>th</sup> generation statins  
(b) Half-life is 14 hours  
(c) Lipophilic  
(d) Hydrophilic
- 16. Which of the following does not precipitates angina?**
- (a) Walking against cold wind  
(b) Walking after major meals  
(c) Coitus                        (d) Hot environment
- 17. Relief of angina by sublingual nitroglycerine occurs within**
- (a) 30 sec                        (b) After 1 min  
(c) 1.5 min                      (d) 10.15 min
- 18. Anginal pain occurs in all of the following locations except**
- (a) Lower chest  
(b) Between epigastrium and pharynx  
(c) Lower cervical spinal  
(d) Upper jaw
- 19. The quality of anginal pain are all except**
- (a) Gradual increase and gradual fall in intensity  
(b) Burning  
(c) Stabbing                      (d) Constricting
- 20. In variant angina all following statements are correct except**
- (a) Usually occur at night during rest  
(b) Relieved by sublingual nitroglycerine  
(c) Associated with severe coronary artery disease  
(d) Associated with ST elevation
- 21. Which of the following cell accumulation determines the extent of ischemial myocardial damage?**
- (a) Lymphocytes                (b) Neutrophils  
(c) RBC                            (d) Monocytes

- 22. Myocardial dysfunction is best assessed by**
- (a) History
  - (b) Physical examination
  - (c) Chest X-ray
  - (d) ECG
- 23. Myocardial ischemia is best assessed by**
- (a) Physical examination
  - (b) Resting ECG
  - (c) Exercise ECG
  - (d) Holter monitoring
- 24. Functional capacity of heart disease is best assessed by**
- (a) History
  - (b) Resting ECG
  - (c) Exercise ECG
  - (d) Physical examination
- 25. All are risk factors for abrupt closure following PTCA except**
- (a) Male gender
  - (b) Long lesion
  - (c) Lesion at branch point
  - (d) Lesion associated with thrombus
- 26. All are risk factors for restenosis following PTCA**
- (a) Male gender
  - (b) Diabetes mellitus
  - (c) Hypertension
  - (d) Unstable angina
- 27. All are mechanical complications of myocardial infarction except**
- (a) Mitral regurgitation
  - (b) Ventricular septal defect
  - (c) Rupture of free wall
  - (d) Pericarditis
- 28. All of the following factors occur in pheochromocytoma except**
- (a) Severe headache
  - (b) Postural hypotension
  - (c) Profuse sweating
  - (d) None of the above

- 29. All of the following features regarding pheochromocytoma are correct except**
- (a) 10 % are unilateral
  - (b) 10 % are malignant
  - (c) 10 % are extra adrenal
  - (d) 10 % familial
- 30. Which statement regarding statins in aortic stenosis is incorrect?**
- (a) Decreases progression of aortic stenosis
  - (b) The effect correlates with cholesterol
  - (c) Decreases gradient across aortic valve
  - (d) Decreases mortality
- 31. Conclusion of CASS trial include all the following except**
- (a) CABG did not prolong life in unstable angina
  - (b) CABG did not prevent myocardial infarction in mid angina
  - (c) Long term survival was improved in patients with baseline EF < 50 %
  - (d) None of the above
- 32. SHEP trial concludes except**
- (a) Stepped care approach in treatment of ISH reduced the incidence of stroke
  - (b) In older persons the LV mass was reduced with chlorthalidone based regimen
  - (c) Low dose chlorthalidone therapy had no effect on cardiovascular risk factor
  - (d) Reduced the major cardiovascular events
- 33. All are clinical complications of atherosclerosis except**
- (a) Ischemic heart disease
  - (b) Ischemic stroke
  - (c) Aortic abdominal aneurysm
  - (d) Hemorrhagic stroke
- 34. All are biomedical risk factors for atherosclerosis except**
- (a) Dyslipidemia
  - (b) Hypertension
  - (c) Diabetes
  - (d) Smoking

- 35. Which antihypertensive drug improves lipid profile?**
- (a)  $\beta$ -blockers
  - (b)  $\alpha$ -blockers
  - (c) Calcium channel-blockers
  - (d) ARBs
- 36. Diuretics are drug choice in elderly hypertensive because of**
- (a) Good control of blood pressure
  - (b) Prevents osteoporosis
  - (c) Prevents dementia
  - (d) All of the above
- 37. Variant angina has all features except**
- (a) ST elevation during pain
  - (b) Occur usually at rest
  - (c) ST elevation persists after pain is over
  - (d)  $\beta$ -blocker are not given
- 38. Which drug is avoided in spasmodic angina?**
- (a) Vesapamil
  - (b) Nitrate
  - (c)  $\beta$ -blocker
  - (d) Aspirin
- 39. Which  $\beta$ -blocker is not usually recommended in hypertension?**
- (a) Metoprolol
  - (b) Propranolol
  - (c) Atenolol
  - (d) Sotalol
- 40. All drugs are associated with hypersensitive myocarditis except**
- (a) Methyldopa
  - (b) Streptomycin
  - (c) Tetracycline
  - (d) Chloromycetin
- 41. All drugs causes toxic myocarditis except**
- (a) Emetine
  - (b) Lithium
  - (c) Theophylline
  - (d) Procanamide
- 42. All the statements regarding MR in myocardial infarction are correct except**
- (a) Affects the posteromedial papillary muscle
  - (b) Affects the anterolateral papillary muscle
  - (c) Occurs commonly in acute myocardial infarction
  - (d) Associated with loud systolic murmur
- 43. Earliest ECG change in mitral stenosis is**

- (a) Right axis deviation
  - (b) Left atrial enlargement
  - (c) R/S > 1 in V1
  - (d) Right atrial enlargement
- 44. Constrictive pericarditis has all features except**
- (a) Pulsus paradoxus
  - (b) Kussmaul's sign
  - (c) S3
  - (d) Murmurs
- 45. Culture negative infective endocarditis occurs in**
- (a) 20 %
  - (b) 25 %
  - (c) < 5 %
  - (d) 5.10 %
- 46. Which of the following is a feature of active endocarditis?**
- (a) Increase ESR
  - (b) Leukocytosis
  - (c) Proteinuria
  - (d) Increased polyclonal immunoglobulin
- 47. All are major common risk factors for venous thromboembolism (VTE) except**
- (a) Previous VTE
  - (b) Lower limb orthopedic surgery
  - (c) Paralysis
  - (d) Varicose veins
- 48. All of the following increases risk of restenosis following angioplasty except**
- (a) Diabetes
  - (b) Hypertension
  - (c) Hyperlipidemia
  - (d) Young age
- 49. ACE inhibitors should not be given for hypertension during pregnancy because of**
- (a) Renal impairment in mother
  - (b) Renal failure in fetus
  - (c) Improper control of blood pressure
  - (d) All of the above
- 50. Which of the following condition has highest maternal mortality during pregnancy?**
- (a) VSD- left to right shunt
  - (b) Pulmonary stenosis
  - (c) Pulmonary hypertension
  - (d) ASD- left to right shunt

- 51. Aortic stenosis patients are fit for pregnancy with all the following factors except**
- (a) Moderate aortic stenosis
  - (b) Negative exercise test
  - (c) Left ventricle dysfunction
  - (d) Normal ECG
- 52. Higher INR (3-5-4) is recommended for which prosthetic valve?**
- (a) Bileaflet
  - (b) Tilting discs
  - (c) Caged ball
  - (d) All of the above
- 53. Long-term anticoagulation is done in all patients with bioprosthetic valve except**
- (a) With atrial fibrillation
  - (b) With atrial thrombus on echocardiography
  - (c) Previous history of embolism
  - (d) None of the above
- 54. Optimum duration of antibiotic therapy in majority of patients with infective endocarditis is**
- (a) 2 week
  - (b) 10 days
  - (c) 4 weeks
  - (d) 6 weeks
- 55. Strong indication for surgical intervention in infective endocarditis includes all except**
- (a) Resistant heart failure
  - (b) Endocarditis caused by filamentous fungi
  - (c) Occlusion of valve by large vegetation
  - (d) Late onset prosthetic valve endocarditis
- 56. All are immunologically mediated lesion of infective endocarditis except**
- (a) Glomerulonephritis
  - (b) Osler's node
  - (c) Roth spots
  - (d) Janeways lesion
- 57. Least common finding in lax pericardial effusion is**
- (a) Rub
  - (b) Pulsas paradoxus
  - (c) Palpable apex
  - (d) Soft heart sounds
- 58. Least common finding in constrictive pericarditis is**

- (a) Hepatomegaly (b) Raised JV pressure  
(c) Pericardial knock (d) Ascites
- 59. All are found in constrictive pericarditis except**
- (a) Pericardium thickness > 5 mm  
(b) Pericardial calcification  
(c) Normal wall thickness  
(d) Increased wall thickness
- 60. Average age of survival in severe aortic stenosis is**
- (a) < 2 years (b) 5 years  
(c) 2 years (d) 3 years
- 61. Secondary hyperlipidemia is found in following except**
- (a) Hypothyroidism  
(b) Billiary cirrhosis  
(c) Hyperthyroidism  
(d) Nephrotic syndromes
- 62. Hypertriglyceridemia is found in all except**
- (a) Alcoholism (b) Diabetes mellitus  
(c) Pancreatitis (d) Cushing syndrome
- 63. Tissue ACE inhibitors are cardio protective because of all of the following except**
- (a) Antiproliferative effect  
(b) Antiatherogenic effect  
(c) Mantain endothelial function  
(d) Thrombolytics effect
- 64. Nitrates in acute myocardial infarction cause all except**
- (a) Reduce pain  
(b) Improve associated heart failure  
(c) Reduce infarct size  
(d) Improve survival
- 65. Sublingual nifedipine in hypertensive crisis causes all except**
- (a) Rapidly reduces blood pressure  
(b) Causes subendocardial ischemia  
(c) Causes left ventricular failure  
(d) May cause myocardial infarction

- 66. All are established mechanism of cardio protection by ACE inhibitor except**
- (a) Prevention of remodelling
  - (b) Modification of heart rate variability
  - (c) Regression of LVH
  - (d) Prevention of reperfusion arrhythmia
- 67. All of the following arrhythmia in acute coronary syndrome are due to excessive sympathetic stimulation except**
- (a) Sinus tachycardia
  - (b) Atrial fibrillation
  - (c) Paroxysmal SVT
  - (d) AV blocks
- 68. All are manifestation of hypertensive heart disease except**
- (a) LVH on ECG
  - (b) Clinical LVH
  - (c) LVF
  - (d) A-V conduction defects
- 69. All of the following factors are associated with adverse prognosis after first myocardial infarction except**
- (a) Age > 70 years
  - (b) LVEF < 40 %
  - (c) Large anterior infarction
  - (d) Pericarditis
- 70. Thiazides act on the which part of nephron**
- (a) Loop of henle
  - (b) Cortical diluting segment
  - (c) Distal tubule
  - (d) All of the above
- 71. Calcium antagonist are dilators of**
- (a) Arterial
  - (b) Venous
  - (c) Arterial + Venous
  - (d) None of these
- 72. Prazosin is dilator of**
- (a) Arterial
  - (b) Arterial + Venous
  - (c) Venous
  - (d) None of these
- 73. Severe chest pain with murmur of aortic regurgitation the most likely diagnosis is**
- (a) Acute myocardial infarction
  - (b) Dissection of aorta

- (c) Acute pulmonary embolism
  - (d) None of the above
- 74. All are additional benefits of Na restriction in hypertension except**
- (a) Regression of LVH
  - (b) Decrease in osteoporosis
  - (c) Decreased stroke mortality
  - (d) Decreased coronary artery disease mortality
- 75. Left ventricular hypertrophy in hypertension is related to**
- (a) Diastolic blood pressure
  - (b) Systolic blood pressure
  - (c) Both of them
  - (d) None of these
- 76. Left ventricular hypertrophy more frequently occurs in hypertension in all following conditions except**
- (a) With obesity
  - (b) High dietary sodium
  - (c) Diabetes mellitus
  - (d) Coronary artery disease
- 77. All are atherosclerotic complications of hypertension except**
- (a) Cerebral thrombosis
  - (b) Coronary artery disease
  - (c) Claudication syndrome
  - (d) Aortic dissection
- 78. Acute myocardial infarction is suspected with which ECG finding in patients with pacemaker**
- (a) Marked ST elevation V1-V3
  - (b) Increase in latency period between pacing spike and onset of QRS
  - (c) Notched 'S' wave in V3-V5
  - (d) Both (a) and (b)
- 79. In posterolateral infarct most likely artery involved is**
- (a) Circumflex branch of LCA
  - (b) Distal circumflex branch of LCA
  - (c) Posterior marginal branch of Left circumflex
  - (d) Any of the above

- 80. In high lateral infarct which artery is likely to be involved**
- (a) Obtuse marginal branch of left circumflex
  - (b) High obtuse marginal branch of left circumflex
  - (c) Distal RCA
  - (d) Posterior descending branch of RCA
- 81. Inferior myocardial infarction is caused by occlusion all except**
- (a) Right coronary artery
  - (b) Post descending branch of RCA
  - (c) Left circumflex artery
  - (d) Distal circumflex branch of LCA
- 82. Treatment of hypertension is done in stroke patients in all following except**
- (a) BP > 200/100
  - (b) Haemorrhagic progression of ischemic stroke
  - (c) With left ventricular failure
  - (d) Hypertension < 180/100
- 83. Virchows triad include all except**
- (a) Venous stasis
  - (b) hypercoagulability
  - (c) Damage to vessel wall
  - (d) Thrombocytopenia
- 84. Which surgery is least risk factor for deep vein thrombosis?**
- (a) Spinal cord
  - (b) Knee arthropathies
  - (c) Leg amputation
  - (d) Neurosurgery
- 85. Drug of choice for prevention of DVT in patients undergoing orthopedic surgery**
- (a) LMWH
  - (b) Standard heparin (low dose)
  - (c) Oral anticoagulants
  - (d) Dextran
- 86. Best choice for preventing DVT during cardiovascular surgery is**
- (a) Low dose heparin
  - (b) Aspirin

- (c) Oral anticoagulants
  - (d) Intermittent pneumatic compression
- 87. Which is least common site of DVT?**
- (a) Posterior tibial vein
  - (b) Common femoral vein
  - (c) Iliac vein
  - (d) Anterior tibial vein
- 88. Most established noninvasive test for deep veins thrombosis detection is**
- (a) Impedance plethysmography
  - (b) Fibrinogen uptake test
  - (c) MRI
  - (d) Thermography
- 89. Which is gold standard test for DVT diagnosis?**
- (a) Venography
  - (b) Impedance plethysmography
  - (c) Doppler ultrasound
  - (d) B-mode ultrasound
- 90. All are most frequent manifestation of pulmonary embolism except**
- (a) Dyspea
  - (b) Tachypnea
  - (c) Pleuritic chest pain
  - (d) Myocardial ischemic pain
- 91. Most widely used noninvasive method for diagnosis of pulmonary embolism is**
- (a) Perfusion lung scan
  - (b) X-ray chest
  - (c) ECG
  - (d) Arterial blood gas analysis
- 92. Most sensitive & specific test for diagnosis of pulmonary embolism is**
- (a) Pulmonary angiography
  - (b) Perfusion/ventilation scan
  - (c) ECG
  - (d) X-ray chest
- 93. Major cardiac risk for cocaine use is**
- (a) Myocardial ischemia
  - (b) Arrhythmia
  - (c) Dilated cardiomyopathy
  - (d) Myocarditis

- 94. All of the following are generally correct in women with acute coronary syndrome except**
- (a) Occurs in younger women
  - (b) Have multiple risk factors
  - (c) High risk of adverse outcome
  - (d) Occurs in older women
- 95. All the following aortic diseases are associated with myocardial ischemic except**
- (a) Aortic stenosis
  - (b) Aortic regurgitation
  - (c) Aortic dissection extending to coronaries
  - (d) Co-arctation of aorta
- 96. All are predictors of cardiogenic shock in Myocardial Infarction except**
- (a) Hyperglycemia
  - (b) CK-MB > 160/L
  - (c) LVEF < 55%
  - (d) Hypertension
- 97. All the following risk factors if eliminated lowers cardiovascular risk except**
- (a) Smoking
  - (b) LDL-C
  - (c) LVH
  - (d) Lp(a)
- 98. Thiazides causes following lipid abnormalities except**
- (a) Increases triglycerides
  - (b) Increases Total cholesterol
  - (c) Increases HDL-cholesterol
  - (d) Increases LDL-cholesterol
- 99. Thrombolytics are indicated in all except**
- (a) ST elevation anterior myocardial infarction
  - (b) ST elevation inferior myocardial infarction
  - (c) ST elevation superior myocardial infarction
  - (d) ST elevation posterior myocardial infarction
- 100. Thrombolysis is done in all the following except**
- (a) ST elevation anterior myocardial infarction
  - (b) ST elevation lateral myocardial infarction
  - (c) ST depression anterior myocardial infarction
  - (d) ST elevation posterior myocardial infarction
- 101. All following are more common dihydropyridine calcium channel blockers than non**

**dihydropyridine calcium channel blockers except**

- (a) Hypotension
- (b) Constipation
- (c) Ankle edema
- (d) Flush

**102. Sudden development of electromechanical dissociation in acute myocardial infarction is a sign of**

- (a) Papillary muscle rupture
- (b) Ventricular septal rupture
- (c) Free wall rupture
- (d) None of the above

**103. Which neurological condition is associated with nocturnal hypertension?**

- (a) GB syndrome
- (b) Benoreceptor failure
- (c) Alzheimer's diseases
- (d) Parkinson's diseases

**104. All the following heavy metal poisoning may cause hypertension except**

- (a) Lead
- (b) Gold
- (c) Mercury
- (d) Thallium

**105. Post operative hypertension occurs with all the following surgical intervention except**

- (a) After myocardial revascularisation Surgery
- (b) Aortic valve replacement
- (c) resection of aortic co-arction
- (d) Balloon mitral valvotomy

**106. Significant hypertension develop during following acute conditions except**

- (a) Acute pancreatitis
- (b) Acute intermittent porphyria
- (c) Acute respiratory distress
- (d) Diabetic ketoacidosis

**107. All the following neurological disorders are associated with hypertension except**

- (a) Quadriplegia following cervical injury
- (b) Brain tumor
- (c) Severe head injury
- (d) Meningitis

- 108. Only systolic hypertension is found in which of the following condition**
- (a) Hypothyroidism
  - (b) Hyperthyroidism
  - (c) Acromegaly
  - (d) Hyperparathyroidism
- 109. All the following agents induce hypertension except**
- (a) Cyclophosphamide
  - (b) Cyclosporine
  - (c) Disulfiram
  - (d) Erythropoietin
- 110. Nonsteroidal anti inflammatory drugs blunt the antihypertensive effect of all the following except**
- (a) ACE inhibitors
  - (b)  $\beta$ -blockers
  - (c) Calcium channel blockers
  - (d) Methyldopa
- 111. Which feature of chest pain is associated with most likelihood for myocardial infarction?**
- (a) Chest pain only
  - (b) Chest pain with radiation to right shoulder
  - (c) Chest pain with radiation to left shoulder
  - (d) Chest pain with radiation to both shoulders
- 112. Which feature of chest pain is associated with most likely possibility of myocardial infarction?**
- (a) Pleuritic
  - (b) Stabbing
  - (c) Positional
  - (d) Squeezing
- 113. Features of inappropriate hypertension are all except**
- (a) Blood pressure > 180/110
  - (b) Left ventricular hypertrophy on ECG
  - (c) Abdominal bruit
  - (d) Adequate response to therapy
- 114. Commonest finding in reno vascular hypertension is**
- (a) Abdominal bruit
  - (b) Urinary casts
  - (c) Age of onset after 50 years
  - (d) Grade 3 or 4 fundoscopic changes

- 115. Most common location of pheochromocytomas is**
- (a) Unilateral adrenal
  - (b) Bilateral adrenal
  - (c) Intra thoracic
  - (d) In the risk
- 116. Most common clinical presentation of phaeochromocytoma is**
- (a) Paroxysmal hypertension
  - (b) Sustained hypertension
  - (c) Tremor
  - (d) Flushing
- 117. All the following peptides stenciled brown phiochromocryronia are vasoconstriction except**
- (a) Endothelium
  - (b) neropephidey
  - (c) Rennin
  - (d) Adrenomednlta
- 118. All may be associated findings with phaeochromocytoma except**
- (a) Dyspnea on exertion
  - (b) Hypocalcaemia
  - (c) Polycythemia
  - (d) Anemia
- 119. All are more likely features of phaeochromocytoma in children except**
- (a) Familial
  - (b) Multiple tumors
  - (c) Extra abdominal
  - (d) Familial paroxysmal HTN
- 120. Mitral regurgitation after exercise in coronaty artery disease usually indicates**
- (a) SVD
  - (b) LMCD
  - (c) DVD
  - (d) TVD
- 121. All following statements are correct regarding coronary calcium except**
- (a) Presence of atherosclerotic plasma
  - (b) Presence of calcium indicates apophasis in polymer
  - (c) Presence of calcium indicates lipid content of plaque
  - (d) Indicates vulnerable plaque for reframe

- 122. Most specific and sensitive test for evaluation of coronary artery disease is**
- (a) Stress ECG
  - (b) Stress echo
  - (c) Stress thallium
  - (d) Ambulatory ECG
- 123. Detection of complication of coronary artery disease is best done by**
- (a) Stress ECG
  - (b) Stress echo
  - (c) Stress thallium
  - (d) Clinical examination
- 124. All the following lipid abnormality in obesity are commonly found except**
- (a) Increased triglycerides
  - (b) Increased HDL
  - (c) Increased apoB
  - (d) Increased small dense LDL
- 125. Commonest location of infarct from anomalous origin of left coronary artery from pulmonary artery is**
- (a) Inferior wall myocardial infarction
  - (b) Infero posterior wall myocardial infarction
  - (c) Antero septal myocardial infarction
  - (d) Antero lateral myocardial infarction
- 126. Microalbuminuria (M (d)) is best treated by**
- (a) ACE inhibitor
  - (b) Angiotensive receptor blockers
  - (c) Combination of ACE inhibitor & verapamil
  - (d) Verapamil
- 127. Best test for diagnosis of peripheral vascular disease is**
- (a) Colour wave doppler
  - (b) Ankle brachial index
  - (c) Transcutaneous perival pressure of oxygen
  - (d) Angiography
- 128. High total cholesterol is associated with all the following except**

- (a) Coronary artery disease
- (b) Peripheral arterial disease
- (c) Thrombotic strokes
- (d) Rheumatic valve disease

**129. Which of the following are the acronyms for percutaneous transmyocardial revascularization?**

- (a) PTMR
- (b) PMR
- (c) DMR
- (d) PMLR
- (e) TMR
- (f) None of these
- (g) All of these

**130. PTMR is indicated in patients if**

- (a) Angina is treatable by PTCA/CABG
- (b) Angina is controllable on medical treatment
- (c) Angina not treated by CABG/PTCA
- (d) All of the above

**131. Proposed mechanism of PTMR in treating angina**

- (a) Clears the plaque
- (b) Improves supply through grafts
- (c) Creates neoangiogenesis
- (d) Decreases myocardial oxygen demand

**132. Following PTMR the average hospital stays is**

- (a) 10-12 days
- (b) 15-20 days
- (c) 1-2 days
- (d) 7 days

**133. PTMR is done via**

- (a) Percutaneous femoral route
- (b) Median sternotomy
- (c) Lateral thorocotomy
- (d) Heart port approach

**134. The depth of channels created in PTMR are**

- (a) 2-3 mm
- (b) 4-5 mm
- (c) 6-8 mm
- (d) 10-15 mm

**135. The average duration for which the channels remain patent is**

- (a) Few minutes
- (b) Few days to 1 week
- (c) 1 week to 1 month
- (d) > 1 month

- 136. The average duration of a standard PTMR procedure is**
- (a) 2-5 minutes
  - (b) 30-45 minutes
  - (c) 2-5 hours
  - (d) > 5 hours
- 137. PTMR is done under**
- (a) LA
  - (b) GA
  - (c) Spinal anesthesia
  - (d) No anesthesia
- 138. The important randomized PTMR studies under investigations are**
- (a) Atlantic study
  - (b) Pacific and crimson study
  - (c) CASS trial
  - (d) PAMI trial
- 139. Angiographic thrombus is most common in**
- (a) Stable angina
  - (b) Unstable angina
  - (c) Non Q myocardial infarction
  - (d) Q myocardial infarction
- 140. No clot is found is**
- (a) Stable angina
  - (b) Unstable angina
  - (c) Non Q myocardial infarction
  - (d) Myocardial infarction
- 141. Red clot is found is**
- (a) Stable angina
  - (b) Unstable angina
  - (c) Non Q myocardial infarction
  - (d) Q myocardial infarction
- 142. In elderly hypertension all are true except**
- (a) Direct arterial measurement frequently differs markedly from the cuff measurement
  - (b) Pseudo hypertension should be excluded by Osler's maneuver
  - (c) Radio femoral delay is frequent
  - (d) AV nipping is a non-specific
- 143. In elderly hypertensive which is the most important risk factor**
- (a) Systolic pressure
  - (b) Diastolic pressure

- (c) Mean arterial pressure
  - (d) Both Systolic and diastolic pressure
- 144. In elderly subjects secondary hypertension frequently occurs due to**
- (a) Coarctation of aorta
  - (b) Secondary hyper aldosteronism
  - (c) Secondary renal artery stenosis
  - (d) Primary hyperaldosteronism
- 145. Elderly hypertensive are good responders to all of the following except**
- (a) Diuretics
  - (b)  $\beta$ -blockers
  - (c)  $\alpha$ -blockers
  - (d) Calcium channel blockers
- 146. Drug therapy in elderly hypertensives produces all of the following side effects except**
- (a) Depression
  - (b) Anxiety
  - (c) Constipation
  - (d) Intermittent claudication
- 147. In USA, percentage of hypertensive who are aware that they have high blood Pressure is**
- (a) Less than 5%
  - (b) 25–35%
  - (c) 65–75%
  - (d) > 75%
- 148. In USA, the percentage of hypertensive whose blood pressure is effectively controlled in**
- (a) Less than 10%
  - (b) 25–30%
  - (c) 35.60%
  - (d) > 60%
- 149. In India figures for effectively controlled blood pressure at a national level are**
- (a) Not known
  - (b) Less than 5%
  - (c) 10–20%
  - (d) 20–30%
- 150. Which of the following environmental factors may increase blood pressure even if present temporarily?**
- (a) Noise
  - (b) Exposure to severe cold
  - (c) Pain
  - (d) Position of arm on which blood pressure is being measured
  - (e) All of the above

**151. JNC VI (1997) has recommended the following as compelling indications for the use of low dose diuretics in hypertensive**

- (a) No compelling indication
- (b) Isolated systolic hypertension (older patients)
- (c) Hypertension associated with heart failure
- (d) Hypertension associated with impotence as a side effect with  $\beta$ -blockers
- (e) Both (b) and (c)

**152. Which definition correctly depicts resistant hypertension?**

- (a) When blood pressure cannot be reduced to below 140/90 mm Hg inspite of full compliance of triple drug regime which also includes a diuretic at maximal doses
- (b) When blood pressure remains  $\geq$  150/95 mm Hg inspite of maximal doses of at least two drugs
- (c) When blood pressure remains  $\geq$  165/100 mm of Hg inspite of maximum tolerated antihypertensive therapy

**153. The following are class 2 risk factors except**

- (a) Diabetes mellitus
- (b) Thrombogenic factors
- (c) Physical inactivity
- (d) Postmenopausal status

**154. Linear relationship of serum levels with CAD risk is found with**

- (a) HDL-C
- (b) VLDL-C
- (c) LDL-C
- (d) Chylomycrons

**155. Oleic acid is a**

- (a) PUFA
- (b) MUFA
- (c) Saturated fat
- (d) None of the above

**156. For each 1 mg/dl increase in HDL-C level the risk for CAD decreases by**

- (a) 1 to 2%
- (b) 2 to 3%
- (c) 3 to 4%
- (d) 4 to 5%

**157. Hypertriglyceridaemia is a proven coronary artery disease risk factor in**

- (a) Children (b) Men  
(c) Women (d) All of the above
- 158. Syndrome-X has all the following components except**
- (a) Hyper insulinemia (b) Hyperlipidemia  
(c) Hypertension (d) Hyperuricemia
- 159. All the following reduce homocysteine levels except**
- (a) Vitamin C (b) Vitamin B6  
(c) Vitamin B12 (d) Folic Acid
- 160. All the following mediate direct endothelial damage except**
- (a) Glycosylated LDL (b) Oxidised LDL  
(c) Homocysteine (d) Lipoprotein [a]
- 161. The following drugs increases HDL-C levels except**
- (a) Gemfibrozil (b) Bile acid resins  
(c) Probucol (d) Statins
- 162. Anti thrombotic effect is a feature of**
- (a) Saturated fats (b) MUFAs  
(c) Omega-6 PUFAs (d) Omega-3 PUFAs
- 163. Left ventricular hypertrophy regression is best obtained with**
- (a) Diuretics  
(b)  $\beta$ -blockers  
(c) ACE inhibitors  
(d) Calcium channel blockers
- 164. Increased thrombus formation occurs in the deficiency of the following factors except**
- (a) Lipoprotein [a]  
(b) Protein C  
(c) Anti-thrombin III  
(d) Protein S
- 165. The maximum risk to develop pulmonary embolism subsequent to setting of deep vein thrombosis is within**
- (a) First 12 hrs (b) First 24 hrs.  
(c) First 48 hrs. (d) First 72 hrs.

- 166. Which one of the following is the most reliable diagnostic modality for deep vein thrombosis**
- (a) Venous plethysmography
  - (b) Real time B-mode compression ultrasonography
  - (c) Radioisotope fibrin uptake
  - (d) Doppler ultrasound
- 167. Which one of the following is the most reliable diagnostic method for pulmonary embolism?**
- (a) Chest X-ray
  - (b) Electrocardiography
  - (c) V/Q scan
  - (d) Surfactant test
- 168. Which is the commonest site of deep vein thrombosis?**
- (a) Lower limb below knee
  - (b) Lower limb above knee
  - (c) Ilio-femoral vein
  - (d) Upper limb
- 169. Which one of the following is an infrequent event in pathogenesis of pulmonary embolism?**
- (a) Atelectasis
  - (b) Pulmonary edema
  - (c) Pulmonary infarction
  - (d) Right ventricular failure
  - (e) Surfactant depletion
- 170. Which one of the following is not a sign or symptom of pulmonary embolism?**
- (a) Hemoptysis
  - (b) Wheeze
  - (c) Chest pain
  - (d) Diaphoresis
- 171. Resolution of emboli gets completed in**
- (a) 2-4 weeks
  - (b) 4-6 weeks
  - (c) 4-8 weeks
  - (d) After 8 weeks
- 172. In case of pregnancy the diagnosis of deep vein thrombosis is best made by**
- (a) Ultrasound
  - (b) Doppler ultrasound
  - (c) Real time B-mode compression ultrasonography
  - (d) Magnetic resonance imaging

**173. Thrombectomy is best indicated in**

- (a) Acute cerebral thrombi
- (b) Acute cervical thrombi
- (c) Acute iliofemoral venous thrombi
- (d) Acute upper limb thrombi

**174. In which case low molecular weight heparin is not a suitable drug for the management of pulmonary embolism?**

- (a) Primary prophylaxis
- (b) Acute treatment
- (c) Long-term management
- (d) All of the above

**175. What does minimally invasive coronary artery surgery means?**

- (a) Avoidance of cardiopulmonary bypass and access through smaller incision
- (b) CABG or cardiopulmonary bypass through mid sternotomy
- (c) Not different from conventional surgery except that it requires video thoracoscope
- (d) All of the above

**176. What are the reasons for re-emergence and rapid acceptance of minimally invasive coronary artery surgery?**

- (a) Increasing cost of conventional surgery, post operative discomfort of media sternotomy and damaging effect of cardiopulmonary bypass
- (b) Long operative time required for conventional surgery
- (c) post-operative results are sub-optimal with conventional surgery
- (d) All of the above

**177. Upper mid-sternstomy approach is used for**

- (a) MIDCAB procedure
- (b) Aortic and mitral valve surgery
- (c) Conventional CABG
- (d) All of the above

**178. Right minithoracotomy approach is used for**

- (a) Revascularisation of circumflex system
- (b) Conventional CABG
- (c) For mitral valve surgery and ASD closure
- (d) All of the above

**179. Pharmacological agents most commonly used for stabilization of heart during minimally invasive CABG are**

- (a) Epinephrine and dobutamine
- (b) Esmolol verapamil and adenosine
- (c) Cordarone and Xylocard
- (d) None of these

**180. All are common emerging risk factor for atherosclerosis except**

- (a) Lipoprotein(a)
- (b) Fibrinogen
- (c) Triglycerides
- (d) Insulin levels

**181. Myocardial calcification most commonly occurs in**

- (a) Calcified thrombus
- (b) Myocardial hydatid disease
- (c) Healed myocardial infarction with out aneurysm
- (d) Healed myocardial infarction with aneurysm

**182. The effect of cholesterol reduction on IHD mortality occurs after**

- (a) 1 month
- (b) 1 years
- (c) 2 years
- (d) 3 years

**183. Liver function abnormality by statin which statement is incorrect?**

- (a) Occur in 0.5% of cases
- (b) Dose dependent
- (c) Depend on duration of treatment
- (d) Should be stopped if transaminase levels exceed three times the upper limit of normal

**184. RISC Trial Concluded**

- (a) Low dose aspirin reduces mortality in unstable angina/ none Q wave myocardial infarction

- (b) Heparin reduces mortality in NQMI
- (c) Both aspirins / Heparin reduces mortality
- (d) Heparin reduces mortality in unstable angina

**185. Ventricular aneurysm in myocardial infarction has following features except**

- (a) Develop mostly after large transmural acute myocardial infarction
- (b) Associated with heart failure
- (c) Myocardium around aneurysm is arrhythmogenic
- (d) Associated with pericarditis

**186. Which of the following mechanism is most important of HDL anti atherogenic effect?**

- (a) Reverse cholesterol transport
- (b) Inhibition of LDL oxidation
- (c) Inhibition of adhesion molecules
- (d) All of the above

**187. All features regarding primary aldosteronism are correct except**

- (a) Hyperkalemia
- (b) Hypokalemia
- (c) Commonly caused by adenoma
- (d) 24 hours urinary aldosterone excretion is increased after salt loading

**188. Most useful diuretic in hypertension of primary hyperaldosteronism is**

- (a) Furosemide
- (b) Thiazide
- (c) Spiranslachore
- (d) All of the above

**189. Pedal edema associated with calcium channel blockers is best managed by**

- (a) Adding ACE inhibitor
- (b) Using S isomer of amlodipine
- (c) Adding diuretic
- (d) Replacing CCB by other agent

**190. Acute arterial occlusion is featured by all the following except**

- (a) Pain
- (b) Redness
- (c) Parasthesia
- (d) Pulselessness

- 191. The risk of myopathies is increased if Atorvastatin is used with all the following except**
- (a) Erythromycin
  - (b) Verapamil
  - (c) Diltiazem
  - (d)  $\beta$ -blockers
- 192. All are absolute contraindication to thrombolysis except**
- (a) Active internal bleeding
  - (b) Aortic dissection
  - (c) Pregnancy
  - (d) Diastolic pressure  $> 100$  but  $< 120$  mm/Hg
- 193. Septal rupture in acute myocardial infarction is characterized by all except**
- (a) Recurrence of chest pain
  - (b) Hemodynamic deterioration
  - (c) Short systolic murmur at left sternal border
  - (d) High prevalence in 2<sup>nd</sup> infarction
- 194. All the following statements are correct regarding goal control of BP except**
- (a) All uncomplicated BP  $< 140/90$
  - (b) Type 2 DM with BP  $< 130/80$
  - (c) HT with CAD BP  $< 140/88$
  - (d) HT with type 2 DM & proteinuria ( $> 1$  gm/24 hrs)  $< 125/75$
- 195. Drugs aggravating angina or myocardial infarction are all except**
- (a) Nifedipine
  - (b) Dipyridamole
  - (c) Hydralazine
  - (d) Verapamil
- 196. All are causes of painless infarction except**
- (a) Diabetes mellitus
  - (b) Dementia
  - (c) During anesthesia
  - (d) Aspirin therapy
- 197. All drugs causes hypertension except**
- (a) Oral contraceptives
  - (b) Erythropoietin
  - (c) Cyclosporine
  - (d) Quinidine
- 198. Which anti hypertensive does not cause AV block?**

- (a) Clonidine                      (b) Methyldopa  
(c) Verapamil                      (d)  $\alpha$ -blocker

**199. Which of the renal artery lesion causing hypertension is least progressive?**

- (a) Atherosclerotic  
(b) Fibromuscular dysplasia intimal type  
(c) Fibromuscular dysplasia medial type  
(d) Fibromuscular dysplasia periarterial type

**200. Branch disease of normal artery is rare in which type of renal artery lesion?**

- (a) Atherosclerotic  
(b) Fibromuscular dysplasia intimal  
(c) Fibromuscular dysplasia medial  
(d) Fibromuscular dysplasia periarterial

**201. All are clinical characteristics of hypertensive crisis except**

- (a) Heart failure  
(b) Renal failure  
(c) Neurological disturbances  
(d) Diastolic blood pressure usually < 120 mm Hg

**202. Which is the leading cause of death in diabetes mellitus?**

- (a) Ischemic heart disease  
(b) Renal dysfunction  
(c) Diabetic cardiomyopathy  
(d) Autonomic neuropathy

**203. All following anti-hypertensives on sudden withdrawal cause rebound-phenomenon except**

- (a) Clonidine                      (b) Methyldopa  
(c)  $\beta$ -blockers                      (d) ACE inhibitors

**204. Which anti anginal agent is first line treatment in IHD?**

- (a)  $\beta$ -blockers                      (b) Amlodipine  
(c) Nifedipine                      (d) Nitrates

**205. Which anti anginal agent prevents ventricular fibrillation in IHD?**

- (a)  $\beta$ -blockers                      (b) Nifedipine  
(c) Verapamil                      (d) Nitrates

- 206. Which anti anginal drug best prevents coronary spasm?**
- (a)  $\beta$ -blockers (b) Verapamil  
(c) Nitrates (d) All of the above
- 207. Prevention of death in coronary artery spasm is possible by which drug?**
- (a)  $\beta$ -blockers (b) Ca-blocker  
(c) Nitrate (d) None of the above
- 208. Coronary artery filling is best done by**
- (a)  $\beta$ -blockers (b) Nitrate  
(c) Amlodipine (d) Nifedipine
- 209. All the following features are related to deep vein thrombosis except**
- (a) Contraceptive pill  
(b) Diabetes mellitus  
(c) Post partum period  
(d) Hypertension
- 210. Diagnostic X-ray finding of dissecting aneurysm of aorta is**
- (a) Wide supra cardiac shadow  
(b) Double aortic knob  
(c) Spangling of aortic Arc CN  
(d) Increase size of aorta
- 211. Commonest cause of secondary hypertension is**
- (a) Renal  
(b) Pheochromocytoma  
(c) Coarctation of aorta  
(d) Primary aldosteronism
- 212. All are most common underlying renal disease associated with hypertension except**
- (a) Chronic glomerulonephritis  
(b) Diabetic nephropathy  
(c) Polycystic kidney  
(d) Hypernephroma
- 213. Complications of PCI includes all except**
- (a) Coronary artery dissection  
(b) Coronary artery spasms  
(c) Coronary artery thrombosis  
(d) Coronary artery perforation

- 214. Drug of choice for hypertensive encephalopathy**  
(a) IV beta blockers (b) IV Nitroprusside  
(c) IV Nitroglycerine (d) All of the above
- 215. AT1 receptors are located in all following places except**  
(a) Vessels (b) Brain  
(c) Kidney (d) Liver
- 216. AT2 receptors are located at all following except**  
(a) Heart (b) Adrenal gland  
(c) Myometrium (d) Nerves
- 217. AT4 receptors are located in all following except**  
(a) Heart (b) Brain  
(c) Lungs (d) Nerves
- 218. Which ECG finding is persistent in pulmonary embolism?**  
(a) 'P' pulmonale (b) S1 Q3 pattern  
(c) Q wave in inferior leads  
(d) None of the above
- 219. Reducing systolic blood pressure reduces the risk of all except**  
(a) Ischemic events (b) Stroke  
(c) Heart failure (d) All of the above
- 220. All the following are usually found in atrial infarction except**  
(a) No ventricular infarction  
(b) Deviation of PR segment  
(c) Sudden appearance of atrial arrhythmia  
(d) Bizarre configuration of P wave
- 221. Normal value of serum cholesterol (total) in new born is**  
(a) 75 mg% (b) 100 mg%  
(c) 150 mg% (d) 180 mg%
- 222. Incidence of coronary artery disease in urban India is**  
(a) 12% (b) 20%  
(c) 25% (d) > 25%

**223. Incidence of coronary artery disease in rural India is**

- (a) < 1%                      (b) 4%  
(c) 10%                        (d) > 10%

**224. All are coronary artery disease markers except**

- (a) Lipoproteins  
(b) Blood sugar  
(c) Intimamedia thickness  
(d) Homocysteine levels

**225. All following are correct regarding HDL-C except**

- (a) < 40 mg/dl definite risk factor  
(b) 40 mg –50 mg/dl is normal  
(c) 40 – 60 mg/dl is normal  
(d) > 60 is a negative risk factor

**226. Effective reduction of lipids in coronary artery disease mortality best achieved in**

- (a) 6 month                      (b) 1 year  
(c) 2 years                        (d) After 3 years

**227. Type 2 DM with hyperlipidemia which lipid lowering drug is avoided**

- (a) Statins                        (b) Niacin  
(c) Fibrates                      (d) None of the above

**228. Ideal blood pressure control for uncomplicated hypertension is**

- (a) < 140/90                      (b) < 160/90  
(c) < 150/90                      (d) < 120/80

**229. Ideal BP control of hypertension with DM with proteinuria >1gm/day is**

- (a) < 140/90                      (b) < 130/80  
(c) < 125/75                      (d) < 150/80

**230. Myocardial infarction in elderly has all the following features except**

- (a) More common  
(b) Increased incidence of shock  
(c) Increased incidence of heart failure  
(d) ACE inhibitors do not reduce mortality as in young

**231. ACE inhibitors are useful in all the following except**

- (a) Early acute myocardial infarction
- (b) Chronic use in myocardial infarction with LV dysfunction
- (c) Unstable angina
- (d) Future cardiovascular events in post MI patients

**232. Anti hypertensive of choice in subarachnoid haemorrhage is**

- (a) Nitroprusside
- (b) beta-blocker
- (c) Nifedipine
- (d) Nitroglycerine

**233. All are life threatening arrhythmias of digitalis toxicity except**

- (a) Complete heart block
- (b) Ventricular tachycardia
- (c) Asystole
- (d) Multi focal ventricular premature complexes

**234. Atheroma usually does not develop in following vessels except**

- (a) Vein
- (b) Pulmonary artery with normal PAP
- (c) Subclavian artery
- (d) Iliac arteries

**235. Which is major risk factor for development of metabolic syndrome?**

- (a) Obesity (Central)
- (b) Hormonal imbalance
- (c) Lack of exercise
- (d) Ageing

**236. All are indications of IABP in acute myocardial infarction except**

- (a) Selected cases of cardiogenic shock
- (b) Post infarct angina (selected case)
- (c) RVI with refractory hypertension
- (d) Ventricular arrhythmia

- 237. LDL – Cholesterol is reduced most by which method?**
- (a) Reduction of saturated fat in diet
  - (b) Reduction of cholesterol in diet
  - (c) Weight loss
  - (d) Increase fiber in the diet
- 238. Systolic blood pressure is reduced most by which life style modification**
- (a) Desirable weight
  - (b) Sodium restriction
  - (c) Regular exercise
  - (d) Limitary alcohol consumption
- 239. IV Nitroglycerine is indicated in all the following myocardial infarction except**
- (a) Chest pain unresponsive to morphine and  $\beta$ -blocker
  - (b) Continued ischemia
  - (c) Myocardial infarction with left ventricular failure
  - (d) Inferior wall myocardial infarction with right ventricle infarction
- 240. ACE inhibitors are usually beneficial in all the following in acute myocardial infarction except**
- (a) Decreases mortality
  - (b) Decreases recurrent myocardial infarction
  - (c) Decreases heart failure
  - (d) Reduce incidence of arrhythmia
- 241. Highest mortality in acute myocardial infarction related to which of the following**
- (a) Cardiogenic shock
  - (b) Severe heart failure
  - (c) EF < 30 %
  - (d) All the above
- 242. Which is best Beta blocker in myocardial infarction?**
- (a) Atenolol
  - (b) Bisoprolol
  - (c) Metoprolol
  - (d) Pindolol
- 243. LMCA occlusion may be suspected from which of the ECG finding**

- (a) ST elevation in aVR with ST depression in anterior leads
- (b) Extensive anterior myocardial infarction
- (c) Infero-Posterior myocardial infarction
- (d) Anterolateral myocardial infarction

**244. Best time for streptokinase therapy after symptoms of myocardial infarction as regards to survival is**

- (a) Within 1 hours
- (b) Within 2-4 hours
- (c) Within 4-6 hours
- (d) > 6 hours to 12 hours

**245. ST elevation in aVR is found in all except**

- (a) LMCA occlusion
- (b) Circumflex occlusion
- (c) Right ventricle overload
- (d) Right ventricle infarction

**246. Which of the following markers of myocardial infarction take maximum time to returns to normal?**

- (a) Trop I
- (b) Trop T
- (c) Myoglobin
- (d) CPKMB

**247. Troponins are increased in all the following except**

- (a) Heart failure
- (b) Hypertension
- (c) Hyperthyroidism
- (d) Renal failure

**248. All following are usual cardiac complications of hypertension except**

- (a) LVH
- (b) Heart failure
- (c) Coronary artery disease
- (d) Valvular heart disease

**249. All are physiological risk factors for venous thrombosis except**

- (a) Advanced age
- (b) Pregnancy
- (c) Post partum
- (d) Post menopausal

**250. Which statin is non lipopolytic?**

- (a) Atorvastatin
- (b) Rosuvustatin
- (c) Simvastatin
- (d) Pravastatin

- 251. Nitrate is first choice in stable angina in following situations except?**
- (a) With left ventricular dysfunction
  - (b) Infrequent angina
  - (c) Stable angina with hypertension
  - (d) None of these
- 252.  $\beta$ -blocker is first choice is stable angina in all the following conditions except**
- (a) Post myocardial infarction SA
  - (b) Angina with HT
  - (c) Angina with migraine
  - (d) Angina with peripheral vascular disease
- 253. Ca-blocker (Non DPH) is first choice in stable angina in all the following except**
- (a) Beta-blockers contraindicated
  - (b) Where coronary spasm is suspected
  - (c) Associated diabetes mellitus
  - (d) Post myocardial infarction stable angina
- 254. Which of the following antiarrhythmics has anti anginal activity?**
- (a) Quinidine
  - (b) Procainamide
  - (c) Lidocaine
  - (d) Amiodarone
- 255. Atrial fibrillation in acute myocardial Infarction, all statements are correct except**
- (a) Increased embolization
  - (b) Increased infarct size
  - (c) DC shock is contraindicated
  - (d) Increased hospital mortality rate
- 256.  $\beta$ -blockers in post myocardial infarction patients are most effective for**
- (a) Decreases total mortality
  - (b) Decreases sudden cardiac death
  - (c) Decreases reinfarction rate
  - (d) Decrease in ventricular arrhythmia
- 257. Abdominal aortic aneurysm is likely to rupture if its size is**
- (a) 1 cm
  - (b) 2 cm
  - (c) 4 cm
  - (d) > 5 cm
- 258. Dissection of aorta most commonly involves**

- (a) Ascending aorta    (b) Arch of aorta
- (c) Thoracic aorta    (d) Abdominal aorta

**259. Coronary angiography is indicated in aortic stenosis in all except**

- (a) Age > 35 years
- (b) Two or more risk factor for coronary artery disease
- (c) Typical angina    (d) No heart failure

**260. Deep venous thrombosis is characterized by all except**

- (a) Swelling    (b) Redness
- (c) Warm    (d) Non tender

**261. Which statin is known to increase fibrinogen level?**

- (a) Revastatins    (b) Atorvastatins
- (c) Simvastatins    (d) Pravastatins

**262. All following abdominal diseases cause hyperlipidemia except**

- (a) Biliary cirrhosis
- (b) Pancreatitis
- (c) Obstructive jaundice
- (d) Malabsorption syndrome

**263. All the following may cause angina with normal coronary arteries except**

- (a) Coronary artery spasm
- (b) MVP
- (c) Diabetic microangiopathy
- (d) Pulmonary stenosis

**264. Most common cause of syncope in angina is**

- (a) Sublingual nitrate
- (b) Ischemia induced LVF
- (c) Ischemia induced ventricular arrhythmia
- (d) Ischemia induced arrhythmia complete heart block

**265. All following may cause silent ischemia except**

- (a) Diabetics    (b) Elderly
- (c) Small mass of ischemic myocardium
- (d) Ischemia with increases LVEDP

- 266. High prevalence of heart disease in elderly male is of**
- (a) Coronary artery disease
  - (b) Hypertension
  - (c) Valvular
  - (d) Congenital
- 267. Best antihypertensive agent in patients of hypertension with migraine is**
- (a) Selective  $\beta$ -blocker
  - (b) Non selective  $\beta$ -blocker
  - (c) ACE inhibitor
  - (d)  $\alpha$ -blocker
- 268. Anti hypertensive of choice in patients with hypertension & osteoporosis**
- (a)  $\beta$ -blocker
  - (b) Thiazide diuretics
  - (c) Aldactone
  - (d) Loop diuretics
- 269. Most specific marker of acute myocardial infarction in 2 hours chest pain**
- (a) Total MB-CK activity
  - (b) Total MB-CK mass
  - (c) Troponin 'T'
  - (d) Myoglobin
- 270. Most specific & sensitive marker of acute myocardial infarction at 22 hours after chest pain**
- (a) Total MB-CK mass
  - (b) Trop -T
  - (c) Trop - I
  - (d) Myoglobin
- 271. Smoking causes atherosclerosis most in**
- (a) Peripheral arteries
  - (b) Cerebral arteries
  - (c) Coronary arteries
  - (d) Retinal artery
- 272. Blood pressure cause atherosclerosis most in**
- (a) Coronary arteries
  - (b) Retinal arteries
  - (c) Peripheral arteries
  - (d) Cerebral arteries
- 273. Cholesterol is involved in atherosclerosis mainly in which arteries systolic**

- (a) Peripheral
- (b) Cerebral
- (c) Retinal
- (d) Coronaries

**274. DM affects most which arterial systemic**

- (a) Peripheral
- (b) Retinal
- (c) Coronary
- (d) Cerebral

**275. Dietary cholesterol cause following changes in lipid profile except**

- (a) Increase TC
- (b) No effect on TG
- (c) Increases LDL-C
- (d) Decreases HDL-C

**276. Which saturated fatty acid has no effect on lipid profile?**

- (a) Pomitic acid
- (b) Stearic acid
- (c) Medium chain fatty acid
- (d) Myristic acid

**277. Which saturated fatty acid cause maximum risk of LDL-C?**

- (a) Lauric acid
- (b) Myristic acid
- (c) Medium chain fatty acid
- (d) Palmitic acid

**278. Which mono saturated fatty acid has no effect or lipid profile?**

- (a) Oleic acid
- (b) Tran fatty acid
- (c) Both the (a) and (b)

**279. Which disease least common with peripheral vascular disease?**

- (a) Coronary artery disease
- (b) Hypertensive
- (c) Hyperlipidemia
- (d) Cerebro vascular disease

**280. Best drug to prevent myocardial infarction in VA is?**

- (a) Nitrate
- (b)  $\beta$ -blockers
- (c) Ca-blockers
- (d) Heparin

**281. Mortality reduction in VA is best achieved by**

- (a)  $\beta$ -blockers
- (b) Nitrates
- (c) Aspirin
- (d) Heparin

**282. All following reduce in ventricular O<sub>2</sub> demand except**

- (a) Nitrate
- (b) b-blockers
- (c) Ca-blockers
- (d) Aspirin

**283. Single best way for predrecting severity of aortic stenosis is**

- (a) Pulsus parves et tardus
- (b) Late perking murmur
- (c) S4
- (d) Paradoxical splitting

**284. Reduced HDL-C by all except**

- (a) Smoking
- (b) Increase TG
- (c) β-blockers
- (d) Increase TC

**285. Yearly mortality rate in left main artery disease is**

- (a) 5 %
- (b) 6 %
- (c) 7 %
- (d) > 8 %

**286. Lipoprotein is a best reduced by**

- (a) Statin
- (b) Niacin
- (c) Resons
- (d) Diet low in saturated fat

**287. Statins therapy has all the following feature except**

- (a) work best with high level of LDL
- (b) Aortic stenosis the LDL decrease their effect also shunts
- (c) There is no rebound after stoppage
- (d) Long duration lang lesion therapy favorable effect

**288. Which statins has least hypothech effect?**

- (a) Lova statins
- (b) Smiver statins
- (c) Carnba statins
- (d) Atorvastatin

**289. Which in the commonest variety of acute arteritis?**

- (a) Type I
- (b) Type II
- (c) Type III
- (d) TypeIV

**290. Anecorysmia occur in aortoarterites**

- (a) Ascending aorta
- (b) Descending aorta

- (c) Both (a) and (b) (d) None of these

**291. All following occur in retinal vascular in aortoarteritis except**

- (a) Retinal vein distension  
(b) Micro aneurysm formation  
(c) Arterio venous anastomosis  
(d) Retinal vein thrombosis

**292. Which is commonest manifestation of aorta arteritis?**

- (a) Decrease or absent pulse  
(b) Bruit  
(c) Hypertension  
(d) Heat failure

**293. Heart failure aorta arteritis is due to all except**

- (a) Hypertension  
(b) Valvular incompetence  
(c) Cardiomyopathy  
(d) Atrial fibrillation

**294. Pulmonary artery involvement in aorta Arteritis featured by all except**

- (a) Lesion occur large and medium size  
(b) Lesion at stenosis  
(c) Right upper lobe artery is frequently involved  
(d) PH is common

**295. Which statement is correct regarding angina equivalents?**

- (a) Dyspnoea (b) Fatigue  
(c) Both A & B (d) None of the above

**296. Coronary arteries most commonly involved in**

- (a) Poly arteritis nodosa  
(b) Ankylosing spondylitis  
(c) Rheumatic arthritis  
(d) SLE

**297. Most frequent cause for acute myocardial infarction in pregnancy is**

- (a) Hyper coagulability  
(b) Enhance athero thrombosis  
(c) Drug induced  
(d) Coronary dissection

- 298. All following antihypertensive removed by haemodialysis except**
- (a) Methyl dopa
  - (b) Nitropruside
  - (c) Minoxidil
  - (d) Clonidine
- 299. All following antiarrhythmia are remond by haemodralysis except**
- (a) Quinidine
  - (b) Disopyramide
  - (c) Procanomide
  - (d) Amiodarone
- 300. Worsing of angina may occur with which Ca-channel blockers**
- (a) Verapamile
  - (b) Diltuzem
  - (c) Nitedifine
  - (d) Bepridril
- 301. Which calcium channel blocker has least antihypertensive effect?**
- (a) Amlodipine
  - (b) Diltiazem
  - (c) Verapamil
  - (d) Nifedipine
- 302. Which calcium channel blocker has best anti anginal effect?**
- (a) Amlodipine
  - (b) Nifedipine
  - (c) Verapamil
  - (d) Diltiazem
- 303. Free wall rupture most commonly occurs in**
- (a) Lat wall infarction
  - (b) Septal infarction
  - (c) Inferior infarction
  - (d) Infero post wall infarct
- 304. Papillary muscle rupture most commonly occur**
- (a) Ant septal myocardial infarction
  - (b) Infero-Post myocardial infarction
  - (c) Lat wall myocardial infarction
  - (d) RVI
- 305. Left ventricular aneurysm most common develops in**
- (a) Anterior myocardial infarction
  - (b) Inferior myocardial infarction
  - (c) Post myocardial infarction
  - (d) Infero-post myocardial infarction
- 306. Ventricular septal rupture commonly occurs in**

- (a) Anterior myocardial infarction
  - (b) Inferior myocardial infarction
  - (c) Post myocardial infarction
  - (d) Infero-post myocardial infarction
- 307. Beneficial effect of clopidogrel may be multifacet by all following statins except**
- (a) Lambastin
  - (b) Atorvastatin
  - (c) Rosuvastatin
  - (d) Lenavastatin
- 308. In comparison to Q wave myocardial infarction the non Q wave myocardial infarction has all the following features except**
- (a) Reinfarction is more
  - (b) Arrhythmias are less
  - (c) Post infarct angina is more
  - (d) Heart failure is more
- 309. IV Nitroglycerine usually more then in**
- (a) Hyporalemia
  - (b) RVI
  - (c) Cardiac temponade
  - (d) Uncomplicated inf-myocardial infection
- 310. All are least myocardial depressant except**
- (a) Quinidime
  - (b) Mexilitine
  - (c) Amiodorone
  - (d) Propafenone
- 311. Which is not lipid specific ACE inhibitor?**
- (a) Lisinopril
  - (b) Perindopril
  - (c) Ramipril
  - (d) Trandolapril
- 312. Most important risk for increased incidence of CAD in India is**
- (a) Hypertension
  - (b) Insulin resistance
  - (c) DM
  - (d) Dyslipidemia
- 313. Q wave MI has all the following feature more common than non QMI except**
- (a) Refraction is more
  - (b) Heart failure is more
  - (c) Arrhythmia are more
  - (d) Post infarction angina is Less
- 314. SVR is decreased most by**
- (a) Nifedipine
  - (b) Diltiazem
  - (c) Verapamil
  - (d) Amlodipine

- 315. Sinus node depression does occur with which CB?**
- (a) Nifedipine
  - (b) Diltiazam
  - (c) Verapamil
  - (d) Amlodipine
- 316. Difference of BP between two arms > 15 mmHg is found in all except**
- (a) Aortic aneurysm
  - (b) Aortic arch syndrome
  - (c) Coarctation of aorta
  - (d) Aortic stenosis
- 317. Headache may occur in hypertension at which diastolic blood pressure level**
- (a) 90 – 100 mm Hg
  - (b) 100 – 110 mm Hg
  - (c) 110 – 140 mm Hg
  - (d) > 140 mm Hg
- 318. All are major determinants of myocardial O<sub>2</sub> consumption except**
- (a) Myocardial mass
  - (b) Wall stress
  - (c) Contractility
  - (d) External work load
- 319. Which of the following is not the cause of hypertension?**
- (a) Hyperthyroidism
  - (b) Hypothyroidism
  - (c) Hyperparathyroidism
  - (d) Hypoparathyroidism
- 320. Which gene is unlikely to be related to hypertension?**
- (a) Renin
  - (b) ACE
  - (c) Endothelin
  - (d) ANP
- 321. Obstructive sleep apnea causes systemic hypertension by all the following mechanism except**
- (a) Increases sympathetic activity
  - (b) Increases erythropoetin
  - (c) Increases endothelin
  - (d) Volume expansion

- 322. All statins are lipophilic except**
- (a) Pravastatin
  - (b) Atorvastatin
  - (c) Simvastatin
  - (d) Lovastatin
- 323. All the following drugs reduce cardiovascular events in CHD except**
- (a) Anti platelet agents
  - (b) Lipid lowering drugs
  - (c) Angiotensin converting enzyme inhibitors
  - (d)  $\beta$ -blockers
- 324. Annual mortality in high risk IHD patients is?**
- (a) 1%
  - (b) 2%
  - (c) 3%
  - (d) > 3%
- 325. The most sensitive index of ischemia (myocardial) is**
- (a) ECG changes
  - (b) Enzyme changes
  - (c) Cardiac protein changes
  - (d) Regional wall motion abnormalities
- 326. What is the incidence of silent myocardial infarction?**
- (a) < 5%
  - (b) 5 – 10%
  - (c) 10 – 20%
  - (d) > 25% to 35%
- 327. How often the reno vascular hypertension occurs in aortic dissection?**
- (a) 1%
  - (b) 5%
  - (c) 10%
  - (d) 20%
- 328. Which laboratory finding does not occur in reno vascular hypertension?**
- (a) Increase plasma renin
  - (b) High serum K
  - (c) Low serum Na
  - (d) Proteinuria
- 329. All the following anti hypertensive does not require dose modification with renal insufficiency except**
- (a) Ca-blocker
  - (b) Clonidine
  - (c)  $\alpha$ -blocker
  - (d) Nadolol

- 330. Which type of hypertension is known to precede microalbuminuria?**
- (a) Day time systolic blood pressure
  - (b) Nocturnal systolic blood pressure
  - (c) Combined systolic & diastolic hypertension
  - (d) Diastolic hypertension
- 331. Which is the commonest fibro muscular dysplasia for renal vascular hypertension?**
- (a) Intimal
  - (b) Medial
  - (c) Peripheral
  - (d) All of them
- 332. All the following drugs require dose modification with renal insufficiency except**
- (a) Atenolol
  - (b) Nadolol
  - (c) ACE inhibitors
  - (d) Angiotension receptor blocker
- 333. Which diuretic requires dose modification in renal insufficiency?**
- (a) Thiazide
  - (b) Loop diuretics
  - (c) Xanthines
  - (d) K<sup>+</sup> sparing diuretics
- 334. All the following statements are true regarding MI during pregnancy except**
- (a) Commonly occurs during labour and delivery
  - (b) May be due to atherothrombosis
  - (c) May be due to thrombosis
  - (d) Thrombolysis is done
- 335. HELLP syndrome has all the following except**
- (a) Haemolysis
  - (b) Elevated liver enzyme
  - (c) Low platelet count
  - (d) Proteinuria
- 336. For acute severe hypertension in pre-eclampsia which drug is more safe and effective**
- (a) Hydralazine IV
  - (b) Sod. nitroprusside IV
  - (c) Clonidine
  - (d) Nifedipine

**337. In comabass following conclusion ware draven except**

- (a) Scruples was comparable to streptokinase in ACMI in terms of total mortality
- (b) Scruples caused sunitor traemorthyia strokes
- (c) Scruples caused less thromboembolic strokes
- (d) Scruples caused less allergic reaction

**338. PAMI trial showed all the following except primary angioplasty causes lower occurrence of**

- (a) Non fatal recurrect infarction
- (b) Primary angioplasty reduces mortality
- (c) Increases rate of intracranual bleeding
- (d) Decrease rate of intracranial bleeding

**339. TIMI trail I demonstrate all the following except**

- (a) rtPA causes more rapid reperfusion than streptokinase
- (b) Bleeding complication are more with streptokinase
- (c) Mortality was similar in both groups
- (d) LV function was similar in both groups

**340. ISIS2 trail demonstrated all the following except**

- (a) Aspirin reduces mortality in acute myocardial infarction
- (b) Streptokinase reduces mortality in acute myocardial infarction
- (c) Combination has no synergistic effect on mortality
- (d) Combination did not increases the rate of status

**341. ISIS III concluded the following except**

- (a) Heparin cause small improvement in acute myocardial infarction
- (b) Reduces reinforcing
- (c) No advantage of aspirin over streptokinase
- (d) Strokes were decrease with PA

**342. LATE trail demonstrated all the following except**

- (a) Thrombolysis was achieved by alteplase
- (b) Administered in 6–24 hours of chest pain
- (c) No effect on mortality
- (d) Mortality was reduced

**343. CATS trail showed all the following except**

- (a) Decrease progression of heart failure (Caplopil)
- (b) Decrease ischemia related events
- (c) Increase exercise performance
- (d) On with draul of coptopril increases incidence of ischemic events

**344. DAVIT II trail showed all the following except**

- (a) Verapamil after acute myocardial infarction reduce mortality
- (b) Verapamil after ACMI reduce renifarction in patients of heart failure
- (c) Verapamil after ACMI reduce mortality in patients of without heart failure
- (d) Verapamil after ACMI reduce renifarction in patients without heart failure

**345. TIMI-9 trail concluded all the following except-cardiac rupture following thrombolysis**

- (a) For acute myocardial infarction occur more commonly in young
- (b) For acute myocardial infarction occur more commonly in old
- (c) For acute myocardial infarction occur more commonly in women
- (d) Anticoagulation does not influence its development

**346. TRACE trail showed all the following except long-term with trandolupril in LV dysfunction**

- (a) After acute myocardial infarction reduce total mortality
- (b) Reduce cardiovascular mortality
- (c) No effect on sudden death
- (d) Prevent progression of heart failure

**347. Most common site for peripheral arterial aneurysm is**

- (a) Femoral
- (b) Radial
- (c) Ulnar
- (d) Brachial

**348. Splenic artery aneurysms has all the following features except**

- (a) Reaction is not done in female in clued bearing age more common in women
- (b) Curvilinear shadow of calcification on X-ray
- (c) Rupture may occur in last trimester of pregnancy
- (d) All of the above

**349. Most common cause of peripheral arterial aneurysms is**

- (a) Athero sclerosis
- (b) Penetrative trauma
- (c) Blunt trauma
- (d) Post stenotic dilatation

**350. Which of the following does not cause raynauds phenomena?**

- (a) Scleroderma
- (b) Rheumatoid arthritis
- (c) Ankylosine spondylitis
- (d) SLE

**351. Raynaud's disease has all the following feature except**

- (a) More in femeles
- (b) Occurs at age < 40 years
- (c) Usually bilateral involvement
- (d) Systemic symptoms are present

**352. Avert trail concluded all the following except**

- (a) Aggressive lipid lowering with atriovastatin reduces ischemic events
- (b) Reduced revasculausation procedure
- (c) In coronary artery disease with hyperlidemia
- (d) Dose of atria atorvastatin used was 60 mg/day

- 353. In prevent study following was concluded except**
- (a) Amlodipine in CAD patients reduced the carotid wall thickness carotid wall thickness
  - (b) No effect on quantitative angiography
  - (c) No effect on hospitalization for heart failure
  - (d) Reduced the need for revisualization
- 354. In patients of hypertension and essentials tremors which drug is the choice**
- (a) Atenodol
  - (b) Metoprolol
  - (c) Propranalol
  - (d) Nevibalol
- 355. Drug of choice in treatment of hypertension with osteoporosis**
- (a)  $\beta$ -blockers
  - (b) Thiazide diuretics
  - (c) Loop diuretics
  - (d) ACE inhibitors
- 356. All the following stimuli causes angina except**
- (a) Serotonin
  - (b)  $H^+$
  - (c) Kinins
  - (d) Adenosine
- 357. Increased cardiovascular risk in hypertension is associated with all the following except**
- (a) Coronary artery disease
  - (b) DM
  - (c) Retinopathy
  - (d) Neuropathy
- 358. P Fox inhibitors in angina cause all the following except**
- (a) Increase myocardial ischemia
  - (b) No significant effect on HR
  - (c) No significant effect on blood pressure
  - (d) Decrease coronary flow
- 359. Which anti angial drug is avoided in patients with peripheral vascular disease?**
- (a) Nitrates
  - (b)  $\beta$ -blocker non selective
  - (c) Metabolic modulators
  - (d) Calcium blockers
- 360. Which antianginal drug is to be avoided in DM?**
- (a) Nitrates

- (b) Non selective  $\beta$ -blockers
- (c) Calcium blockers
- (d) Metabolic modulators

**361. Low dose oral anti coagulation is recommended in CAD in all the following situation except**

- (a) Ventricular aneurysm
- (b) Inferior wall myocardial infection
- (c) Atrial fibrillation
- (d) Decreased LVEF

**362. Focal strokes following CABG is most commonly caused by**

- (a) Intracranial vascular disease
- (b) Embolic from atrium ventricle
- (c) Post operative atrial fibrillation
- (d) Atheroembolism from aorta

**363. Angina with ventricular arrhythmia which is the drug of choice for angina?**

- (a) Nitrates
- (b)  $\beta$ -blockers
- (c) Metabolic modulator
- (d) Dihydropyridine Ca-blocker

**364. Angina with sinus tachycardia the choice of antianginal is**

- (a)  $\beta$ -blockers
- (b) Dihydropyridine Ca-blockers
- (c) Nitrates
- (d) Metabolic

**365. Angina with thyrotoxicosis the drug of choice is**

- (a)  $\beta$ -blockers
- (b) Ca-blockers
- (c) Nitrates
- (d) Metabolic modulator

**366. Angina with depression which antianginal to avoid?**

- (a) Nitrate
- (b)  $\beta$ -blockers
- (c) Long acting Ca-blockers
- (d) Metabolic modulator

- 367. Which is the best way to differentiate adenoma from hyperplasia of adrenals?**
- (a) Basal plasma 18-hydroxycortisone
  - (b) Adrenal CT
  - (c) Adrenal MRI
  - (d) Adrenal venous aldosterone cortisol ratio
- 368. Best treatment option for adrenal hyperplasia is**
- (a) Spironolactone
  - (b) Amiloride
  - (c) Surgery
  - (d) all of them
- 369. All are features of adosterone producing edema except**
- (a) Hypokalemia frequent
  - (b) Plasma renin using low
  - (c) Plasma aldosteron levels very high
  - (d) Surgical removal rarely help
- 370. Bilateral adrenal hyperplasia is characterised by all except**
- (a) Hypokalemia less common
  - (b) Plasma rennin levels low
  - (c) Surgical removal usually causes gives relief
  - (d) Occurs in old age
- 371. All are common manifestation of phochromocytoma except**
- (a) Paroxysmal hypertension
  - (b) Persistent hypertension
  - (c) Sweating
  - (d) Palpitation
- 372. All are less common manifestation of phochromocytoma except**
- (a) Tremor
  - (b) Flushing
  - (c) Dysnea
  - (d) Pallor
- 373. Which is most rapidly acting drug in hypertensive emergencies?**
- (a) Captopril
  - (b) Clonidine
  - (c) Frusemide
  - (d) Propranolol
- 374. Which drug has longest duration of action in hypertensive emergencies when given orally?**

- (a) Captopril (b) Clonidine  
(c) Labetalol (d) Propranolol

**375. Which antihypertensive is contraindicated in patients with postural hypotension?**

- (a)  $\alpha$ -blockers (b)  $\beta$ -blockers  
(c) Ca-blockers (d) ACE inhibitors

**376. While treating hypertension in elderly all the following statements are correct except**

- (a)  $\beta$ -blocker are choice  
(b) Use long acting drug  
(c) Start with small dose  
(d) Check the postural and post Prondial hypotension before staling the drug

**377. Recurent strock prevention which drug is given**

- (a) ACE inhibitors (b) Ca-blockers  
(c) AR Bs (d)  $\beta$ -blockers

**378. Vasodilatation occurs with all the following drugs except**

- (a) Ca-blockers (b)  $\beta$ -blockers  
(c) ACE inhibitor (d)  $\alpha$ -blockers

**379. Hypertension with high coronary risk all the following are indicated except**

- (a) Aldostecone antagonist  
(b)  $\beta$ -blockers  
(c) ACE-inhibitors (d) Ca-blockers

**380. In diabetic hypertension all are Tried except**

- (a) ACE Inhibitors  
(b) AR Bs  
(c) Calcium-blockers  
(d) Aldosterone antagonist

**381. Which ARB has uricosuric effect?**

- (a) Losartan (b) Telmesatan  
(c) Erbesartan (d) Olmisartan

**382. In post myocardial infarction all the following are indicated except**

- (a)  $\beta$ -blockers (b) Ca-blockers  
(c) Aldostenosis antagonism  
(d) ACE inhibitors

- 383. Which antihypertensive improve lipid profile?**  
(a)  $\beta$ -blockers (b) ACE inhibitors  
(c)  $\alpha$ -blockers (d) Diuretics
- 384. What is equilibrium level for LDL-C at which progression and regression of the plaque is on average same low?**  
(a) 75 mg % (b) 80 mg %  
(c) 90 mg % (d) 100 mg %
- 385. Nitrates are given in acute myocardial infarction in all the following except**  
(a) Recurrent or ongoing ischemia  
(b) Hypertension  
(c) LVF  
(d) Right ventricular infarction
- 386. All the following dietary changes improve lipid profile except**  
(a) Purple or red grape juice  
(b) Tea with milk  
(c) Nuts  
(d) Almonds
- 387. Which statin is associated with hypertension?**  
(a) Simvastatin (b) Atorvastatin  
(c) Rosuvastatin (d) Fluvastatin
- 388. Which drug is given in hypertension caused by pheochromocytoma?**  
(a) Sotalol (b) Methyldopa  
(c) Propranolol (d) ACE inhibitors
- 389. Ca-blockers in hypertension causes reduction in all the following except**  
(a) Cardiovascular deaths  
(b) Total mortality  
(c) Heart failure  
(d) Stroke
- 390. Commonest complication of untreated hypertension**  
(a) LVH  
(b) Proteinuria  
(c) Going to accelerated phase  
(d) Heart failure

- 391. Survival is most reduced by which complication of hypertension?**
- (a) Accelerated phase
  - (b) Stroke
  - (c) Proteinuria
  - (d) Left ventricular hypertrophy
- 392. Combined systolic + Diastolic hypertension has all the following features except**
- (a) Age of onset 30–50 years
  - (b) Multi factorial etiology
  - (c) Progress is rapid continuous
  - (d) Often cause CAD & renal insufficiency
- 393. All the following are feature of isolated systolic hypertension except**
- (a) Age of onset > 55 years
  - (b) Due to arterial stiffness
  - (c) Progress is slow variable
  - (d) Leads to heart failure/stroke
- 394. All are atherosclerotic complication of hypertension except**
- (a) Heart failure
  - (b) Claudication
  - (c) Coronary artery disease
  - (d) Cerebral thrombosis
- 395. All are hypertensive complications of HT except**
- (a) Aortic dissection
  - (b) Heart failure
  - (c) Encephalopathy
  - (d) Myocardial infarction
- 396. Tangiers disease has all the following feature except**
- (a) Dyslipidemia
  - (b) High incidence of coronary artery disease
  - (c) Increase HDL
  - (d) Orange large lobulated tonsils
- 397. All the following are found on X-ray chest in aortic rupture except**
- (a) Widening of superior mediastinum
  - (b) Depression of left bronchus
  - (c) Displacement of trachea on right side
  - (d) Aortic knuckle prominent

- 398. What is abnormal blood pressure while awake on ambulatory blood pressure measurement?**
- (a) 130/80                      (b) 135/85  
(c) 140/80                      (d) > 140/90
- 399. What is abnormal blood pressure at sleep on ambulatory blood pressure measurement?**
- (a) > 125/75                      (b) 130/80  
(c) > 140/90                      (d) > 126/86
- 400. Insulenemia causes hypertension by all the following mechanism except**
- (a) Sympathetic stimulation  
(b) Increase production of angiotension II  
(c) Endothelial dysfunction  
(d) Increase viscosity of blood
- 401. Which location of coronary occlusion after 1 month of successful reperfusion has highest mortality?**
- (a) Proximal LAD (before 1<sup>st</sup> septed perforator)  
(b) Mild LAD  
(c) RCA  
(d) Left circunflex
- 402. Hypertensive retinopathy rarely occurs in which etiological type of hypertension?**
- (a) Renovascular hypertension  
(b) Renal parenchymal disease  
(c) Coarctation of aorta  
(d) Essential hypertension
- 403. Peripheral arterial thrombosis has all following features except**
- (a) Gradual onset of symptoms  
(b) Claudication (Prior) common  
(c) Physical finding of vascular disease common  
(d) Temperature level demarcation well defined
- 404. Peripheral arterial embolism has all the following features except**

- (a) Sudden onset
- (b) Prior claudication absent
- (c) Temperature level demarcation sharp
- (d) Arterriography reveals well developed collaterals

**405. Commonest cause of cardiogenic embolism is**

- (a) RHD with atrial fibrillation
- (b) Non-rheumatic atrial fibrillation
- (c) Acute myocardial infarction
- (d) Cardiomyopathy

**406. Antihypertensive drug of choice in renal parenchymal reformatory hypertension**

- (a) Ca-blockers
- (b) Methyldropa
- (c) Minoxidil
- (d) None of the above

**407. All are cardiac vascular causes of DVT except**

- (a) RHF
- (b) Deep venous aneurysm
- (c) Myocardial infection
- (d) None of the above

**408. In adrenocortical adenoma the most predictive list is**

- (a) Adrenal venography
- (b) Adrenal venous aldosterone levels
- (c) Adrenal 10 to cholesterol scan
- (d) Orthostatic fall in plasma aldosterone

**409. Most predictive test for adrenal hyperplaria**

- (a) Adrenal venograpgy
- (b) Adrenal 10 do cholesterol scan
- (c) Adrenal venous aldosterance level
- (d) No orthostatic fall in plasma aldosterone

**410. All following statement are correct for myocardial cell death by ischemia except**

- (a) Myocardial cell death occurs both by necrosis and apoptasis
- (b) Necrosis dominates during ischemia
- (c) Apoptosis dominates during reperfusion
- (d) Corrections of ischemia will present both types of myocardial cell death

- 411. Acute myocardial infarction in paced patients (RV) may be suspected by all the following except**
- (a) Marked ST Increase V1-V3
  - (b) Marked elevation in latency between pace maker stimulus and the onset of QRS
  - (c) Noformed S in V3-V5
  - (d) QS Complex in V4-V6
- 412. Most common symptom of coronary artery disease is**
- (a) Chest discomfort
  - (b) Palpitations
  - (c) Dyspnoea
  - (d) Syncope
- 413. Most common first presentation of coronary artery disease is**
- (a) Exertional angina
  - (b) Rest angina
  - (c) Myocardial infarction
  - (d) Sudden cardiac death
- 414. Which trial showed no improvement in Survival after myocardial infarction?**
- (a) Save
  - (b) Trace
  - (c) Smile
  - (d) Consensus II
- 415. In which hypertension Beta-blockers are not used?**
- (a) Portal hypertension
  - (b) Pulmonary hypertension
  - (c) Systemic hypertension
  - (d) Intra vascular hypertension
- 416. Women with myocardial infarction have all the following except**
- (a) More mortality than man
  - (b) More complication than man
  - (c) More silent myocardial infarction than man
  - (d) Death is less common than man
- 417. Women with CAD have following feature compared to man except**
- (a) Symptoms appear late
  - (b) Stress test often not occurred
  - (c) Breast tire may simulate Ischemia on thathim

(d) SCDS are lets fragment

**418. Antihypertensive agent of choice in primary aldosteronism**

- (a) ACE inhibitors
- (b) Ca-channel blockers
- (c)  $\beta$ -blockers
- (d) Spironolachone

**419. Most common symptom peripheral arterial occlusion is**

- (a) Pain
- (b) Coldness
- (c) Pallor
- (d) Runbness

**420. Which of the following reduces cardiovascular events in UA?**

- (a) Ticlopidine
- (b) Dipyridomic
- (c) Sulfirpyrazone
- (d) None of the above

**421. Aldo sterone antagonist are not useful in hypertension except**

- (a) Post myocardial infarction
- (b) Recurrent stroke prevention
- (c) DM
- (d) Chronic-kidney disease

**422. All are most common cause of HT at age between 6–10 years except**

- (a) Renal parenchymal disease
- (b) Renal artery stenosis
- (c) Essential HT
- (d) Coarctation of Aorta

**423. Which life style modification is associated with least systolic blood pressure reduction**

- (a) Alcohol intake in moderation
- (b) Physical exercise
- (c) Sodium restriction
- (d) Weight reduction

**424. ACE inhibitor are better choice than ARBS in which of the following condition in hypertension**

- (a) Heart failure
- (b) DM
- (c) Chronic renal disease
- (d) Recurrent stroke prevention

**425. All are contraindication to PTCA except**

- (a) Unprotected left main stenosis
- (b) Long lesion > 20 mm
- (c) Old lesions
- (d) Mid stenosis in LAD

**426. All following finding are found in septal rupture after Acute myocardial infarction except**

- (a) Increase venous pressure
- (b) Coarse systolic murmur (Crescendo-Decrescendo)
- (c) Basal crepts
- (d) Right sided S3 & S4

**427. Acute MI following myocardial infarction has all following feature except**

- (a) Pan systolic murmur
- (b) Increase venous pressure
- (c) Pulmonary rales
- (d) LVS3 and S4

**428. Pathologic Q waves may be absent when infarct location is VS under except**

- (a) Apical infarct
- (b) Post infarct
- (c) Lateral infarct
- (d) Septal infarct

**429. Normal resting coronary blood flow is**

- (a) 0.5 ml/GLV mass/min
- (b) < 0.5 ml/GLV mass/min
- (c) 0.5 to 0.6 ml/GLV mass/min
- (d) 0.7 – 0.9 ml/GLV mass/min

**430. Which is ECG criteria favourable myocardium in infarct zone?**

- (a) Early disappearance of Q
- (b) Early settling of ST sign
- (c) Pseudonormalization of T
- (d) None of the above

**431. Which is most potent coronary dilator?**

- (a) Verapamil
- (b) Diltiazem
- (c) Nifedipine
- (d) All the above 3 are similar

**432. Anti thrombin deficiency cause commonly**

- (a) Arterial thrombosis
- (b) Deep venus thrombosis
- (c) Atrial thrombosis
- (d) Ventricular thrombosis

**433. All the following statements are correct except**

- (a) Angina is initial presentation in more in female than male
- (b) Short term mortality is higher in female than male
- (c) Long term mortality is high in female then male
- (d) Initial presentation in myocardial infarction is higher in female than male

**434. With all following antihypertensive drugs the cardiac output remains unchanged in pregnancy except**

- (a) Methyldopa
- (b) Labetalal
- (c) Reserpine
- (d) Propranalal

**435. All following Ca-blockers have myocardial, electrophysiological and vascular effect except**

- (a) Verapamil
- (b) Gallopamil
- (c) Diltiazem
- (d) Nifedipine

**436. Pedol edema is maximum with which Ca-blockers?**

- (a) Verapamil
- (b) Diltiazem
- (c) Nitedipine
- (d) All the above

**437. IV NTG is used in all the following situations except**

- (a) Acute LVF
- (b) Variant angina
- (c) Preoperative hypertension
- (d) Chronic heart failure

**438. Which Ca-blocker is powerful coronary dilator?**

- (a) Verapamil
- (b) Nifedipine
- (c) Amlodipine
- (d) Diltiazem

- 439. Which Ca-blocker is most powerful peripheral vasodilator?**
- (a) Nifedipine (b) Diltiazem  
(c) Verapamil (d) All of the above
- 440. All are physiological causes of hyperlipidemia except**
- (a) Weight gain after middle age  
(b) Pregnancy after 2<sup>nd</sup> trimester  
(c) Sedentary life style  
(d) High protein diet
- 441. All the following drugs produce hyperlipidemia except**
- (a) Steroids (b) Hormones  
(c) Thiazide diuretics (d) Calcium blockers
- 442. Which valvular lesion causes systolic hypertension?**
- (a) Mitral regurgitation  
(b) Aortic stenosis  
(c) Aortic regurgitation  
(d) Mitral stenosis
- 443. Which Ca-antagonist has no effect on AV conduction?**
- (a) Diltiazem (b) Verapamil  
(c) Nifedipine (d) None of the above
- 444. Abuept with darnel of which anti anginal is avoided in CAD?**
- (a) Nitrates (b) Nifedipine  
(c)  $\beta$ -blocker (d) All of the above
- 445. Commonest location of free wall rupture is**
- (a) Left lat wall (b) Post wall  
(c) Inferior wall (d) Apical
- 446. Free wall ruptures occurs more in all following situations except**
- (a) Advanced age (b) Females  
(c) Males (d) Hypertension
- 447. Most common type of Na-sensitive hypertension is**
- (a) Non modulating essential hypertension

- (b) Hypertension with bitateral renal artery stenosis
  - (c) Hypertension with bilateral parenchyma disease
  - (d) Hypertension with primary aldosteronism
- 448. Which percentage of hypertension is sodium sensitive?**
- (a) 10 %
  - (b) 80 %
  - (c) 20 %
  - (d) 50-60 %
- 449. Earliest clinical index of cardiac involvement in hypertension is**
- (a) LVH
  - (b) Left atrial enlargement
  - (c) Both (a) and (b)
  - (d) None of the above
- 450. All the following cardiac surgical procedure are associated with hypertension except**
- (a) CABG
  - (b) Cardiac transplant
  - (c) Aortic valve replacement
  - (d) Pericardiectomy
- 451. Moderately high incidence of phaeochromocytoma may occur in which of the following cardiac disorder?**
- (a) RHD
  - (b) Pericardial disease
  - (c) Heart-muscle disease
  - (d) Cyanotic congenital heart disease
- 452. Drug of choice in hypertension associated with pneumoperitoneum for abdominal laproscopic surgery**
- (a) Diuretics
  - (b) ACE inhibitors
  - (c) Ca-blockers
  - (d) Clonidine
- 453. All the following are features of isolated systolic hypertension except**
- (a) Start after 55 years of age
  - (b) Due to arterial stiffness
  - (c) Main complications are stroke/heart failure
  - (d)  $\beta$ -blockers are the choice for treatment

- 454. Drug of choice for hypertension with benign prostate hypertrophy is**
- (a)  $\beta$ -blockers
  - (b)  $\alpha$ -blockers
  - (c) Ca-blocker
  - (d) ACE inhibitors
- 455. Drug of choice for cyclosporine induced hypertension is**
- (a)  $\alpha$ -blockers
  - (b)  $\beta$ -blockers
  - (c) ACE inhibitors
  - (d) Ca-blockers
- 456. Drug of choice for hypertension with myocardial infarction**
- (a) Diuretics
  - (b) ACE inhibitors
  - (c) Ca-blockers
  - (d)  $\alpha$ -blockers
- 457. Atherosclerosis is characterized by all except**
- (a) Disease of intima
  - (b) Involves medium and large arteries
  - (c) Accumulation of smooth muscle cells and lipid within vessel wall
  - (d) Is a disease of media
- 458. An average expansion rate of abdominal aortic aneurysm is**
- (a) 0.1 cm/yr
  - (b) 0.2–0.5 cm/yr
  - (c) 0.6–1 cm/yr
  - (d) > 1 cm/yr
- 459. Most common cause of aortic dissection is**
- (a) Hypertension
  - (b) Genetic abnormality
  - (c) Ehlers-danlos syndrome
  - (d) Atherosclerosis
- 460. Most useful test for diagnosis of dissection of aorta is**
- (a) Echocardiography
  - (b) CT
  - (c) MRI
  - (d) Aortic angiography
- 461. Quantification of lower extremity occlusive arterial disease is best done by**
- (a) Ankle–brachial index
  - (b) Transcutaneous oximetry
  - (c) Doppler wave form analysis
  - (d) Exercise doppler testing

- 462. Anatomic localization of lower extremity arterial occlusion disease is best done by**
- (a) Doppler wave form analysis
  - (b) Trans cutaneous oximetry
  - (c) Segmental pressure analysis
  - (d) Pulse volume recording
- 463. Which arterial diseases cause hypertension?**
- (a) PAN
  - (b) Coarctation of aorta
  - (c) Renal artery stenosis
  - (d) All the above
- 464. Best drug out of the following in pregnancy with hypertension**
- (a)  $\beta$ -blockers
  - (b) Diuretics
  - (c) Ca-blockers
  - (d) ACE inhibitors
- 465. Stroke with severe hypertension the blood pressure cautiously brought down with in few hours to**
- (a) 150/90
  - (b) 140/90
  - (c) 160/100
  - (d) 170/100
- 466. How many Indian are hypertensives in rural areas?**
- (a) 5 %
  - (b) 8 %
  - (c) 10 %
  - (d) 15 %
- 467. Stage I hypertension in indian population is**
- (a) 40 %
  - (b) 50 %
  - (c) 70 %
  - (d) 80 %
- 468. Maximum reduction of both systolic & diastolic blood pressure occurs with**
- (a) Candesartan
  - (b) Irbisartan
  - (c) Losartan
  - (d) Olmesartan
- 469. Only proven effective treatment of stent restenosis is**
- (a) Drug eluting stent
  - (b) Direct ablation atheroectomy
  - (c) Brachy therapy
  - (d) Cutting Balloon

- 470. Commonest cause of myocardial dysfunction is**
- (a) Coronary artery disease
  - (b) Hypertension
  - (c) CMP
  - (d) Myocarditis
- 471. All are mechanism of reduction of blood pressure by thiazolidinedione except**
- (a) Insulin mediated vasodilatation
  - (b) Decreases intracellular Ca
  - (c) Decreases myocytes contractility
  - (d) Decreases endothelin secretion
- 472. Treatment of hypertension in elderly diabetic causes reduction in CV mortality by**
- (a) 30%
  - (b) 40%
  - (c) 50%
  - (d) > 75%
- 473. Diabetic macro complication are better prevented by**
- (a) Blood pressure control
  - (b) Glycemic control
  - (c) Similar by both
  - (d) All of the above
- 474. Insulin sensitizers in type II diabetes mellitus causes all lipid alterations except**
- (a) Decreases triglycerides
  - (b) Increases HDL
  - (c) Decreases LDL-C
  - (d) Decreases LDL-C oxidation
- 475. Insulin sensitizers in type II diabetes mellitus cause all the following except**
- (a) Decreases PAI-1
  - (b) Decreases fibrinogen
  - (c) Both of the above
  - (d) None of the above
- 476. FACET and ABCT trials conclude which anti-hypertensive agent should not be used as first line therapy in diabetic hypertension patients**
- (a)  $\beta$ -blockers
  - (b) Thiazides
  - (c) Verapamil
  - (d) Dihydropyridines calcium channel blockers

- 477. Which of the following triggers lipid abnormalities in diabetic patients?**
- (a) Insulin deficiency
  - (b) Insulin resistance
  - (c) Hyperglycemia
  - (d) All the above
- 478. Small dense LDL particles cause enhanced atherosclerosis by all following mechanism except**
- (a) Bind to intimal proteoglycans more vividly
  - (b) More susceptible to oxidation and glycation
  - (c) Have impaired binding to LDL receptor
  - (d) May modify neutrophils
- 479. Maximum decrease in TG is obtained by**
- (a) Niacin
  - (b) Statins
  - (c) Bile acid sequestrants
  - (d) Ezetimibe
- 480. HDL-C is maximally increased by**
- (a) Niacin
  - (b) Statins
  - (c) Fibrates
  - (d) Ezetimibe
- 481. LDL-C is maximally decreased by**
- (a) Statins
  - (b) Fibrates
  - (c) Ezetimibe
  - (d) Niacin
- 482. Re infarct should be suspected in all except**
- (a) Prolonged ischemic pain
  - (b) ST increase and or normal
  - (c) Enzyme CK or troponin elevation of 100 % of the previous value
  - (d) > 150 % of the previous value
- 483. Modest consumption of alcohol (up to 30 G/day) is protective in coronary artery disease because of following except**
- (a) Increases HDL
  - (b) Decreases LDL
  - (c) Decreases fibrinogen
  - (d) Increases Apo lipoprotein A1

- 484. Which is compelling contraindication to Beta-blocker in hypertension?**
- (a) Advanced heart block
  - (b) Dyslipidemia
  - (c) Athletes
  - (d) Peripheral vascular disease
- 485. Low dose aspirin in hypertension in HOT study showed all the following**
- (a) 15% reduction in major cardiovascular events
  - (b) Stroke rate was not altered
  - (c) All cause mortality was not altered
  - (d) The benefits are seen in all hypertensives (Low risk & high risk)
- 486. Ambulatory blood pressure monitoring should be considered in all the following except**
- (a) Variability in blood pressure
  - (b) High cardiovascular risk
  - (c) Symptoms of hypotension
  - (d) Resistant hypertension
- 487. All the following are effective drug combinations in hypertension except**
- (a) Diuretics + Beta-blocker
  - (b) Diuretics + ACE inhibitors
  - (c) Calcium antagonists + ACE inhibitors
  - (d) Calcium antagonists + Diuretics
- 488. Compelling contra indication to diuretic use in hypertension is**
- (a) Dyslipidemia
  - (b) Electrolyte disturbances
  - (c) Gout
  - (d) All of the above
- 489. All are local complications of cardiopulmonary by pass except**
- (a) Thrombosis
  - (b) Embolism
  - (c) Hemorrhage
  - (d) Heart failure
- 490. To prevent death the best drug for 5 weeks in acute myocardial infarction is**
- (a) Aspirin
  - (b) Streptokinase
  - (c) A + B
  - (d) All Similar

**491. Which is commonest complication of PTCA?**

- (a) Death
- (b) Acute myocardial infarction
- (c) Abrupt closure
- (d) Re stenosis (clinical)

**492. All following conditions increases risk from cardiopulmonary by pass except**

- (a) Previous stroke
- (b) Renal disease
- (c) COPD
- (d) Hypertension

**493. Which is the commonest complication of streptokinin therapy in acute myocardial infarction?**

- (a) Hemorrhagic stroke
- (b) Major bleed
- (c) Allergic reaction
- (d) Hypertension

**494. DVT most commonly occurs in which vein?**

- (a) Calf vein
- (b) Any vein of leg
- (c) Veins of upper extremity
- (d) All of the above

**495. All the following are complications of DVT except**

- (a) Pulmonary embolism
- (b) Post thrombotic syndrome
- (c) Pulmonary hypertension
- (d) Systemic embolism

**496. All following are at high risk for venous thromboembolism except**

- (a) Upper limb amputation
- (b) Major surgery in patients with previous DVT
- (c) Major pelvic or abdominal surgery for malignancy
- (d) Major orthopedic surgery of pelvis

**497. 4S study riveted all the following except**

- (a) Was done in CAD with hyperlipidemia
- (b) Included 4444 cases
- (c) Simvastatin was used 20–40 mg /day
- (d) No effect on progression of atherosclerosis through out the vascular system

- 498. Most frequent presentation of acute myocardial infarction in elderly is**
- (a) Acute LVF
  - (b) CVA
  - (c) Peripheral embolism
  - (d) Atypical chest pain
- 499. U shaped tortuous retinal arterioles are found in hypertension associated with**
- (a) Phaeochromocytoma
  - (b) Hyperthyroidism
  - (c) Coarctation of aorta
  - (d) Reno vascular disease
- 500. Stabilization of plaque in coronary artery disease occurs by statins were LDL-C in reduced by**
- (a) 5 %
  - (b) 10 %
  - (c) 15 %
  - (d) 20 %
- 501. HDL level are increased by all except**
- (a) Almonds
  - (b) Exercise
  - (c) Moderate alcohol intake
  - (d) None of the above
- 502. All of the following drugs increases HDL-C levels except**
- (a) Nicotinic acid
  - (b) Fibrates
  - (c) Ezetimibe
  - (d) Inhibitors of cholesterol ester transfer protein (CETP)
- 503. Which of the following drugs maximally increase HDL-C?**
- (a) Inhibitors of CETP
  - (b) Nicotinic Acid
  - (c) Statins
  - (d) Fibrates
- 504. Which is best ACE inhibitor for protection in stable CAD?**
- (a) Ramipril
  - (b) Perindopril
  - (c) Trandolapril
  - (d) None of the above

- 505. All are cardioprotective Beta-blockers in post myocardial infarction causes except**
- (a) Propranolol
  - (b) Bisoprolol
  - (c) Atenolol
  - (d) Metoprolol
- 506. Smoking causes loss of cardio protection effect of which  $\beta$ -blockers?**
- (a) Atenolol
  - (b) Metaprolol
  - (c) Propranolol
  - (d) Bisoprolol
- 507. Calcium scoring is not valuable in all the following except**
- (a) Young with or without risk factors
  - (b) In high risk for coronary events
  - (c) Add both to the TMT
  - (d) In equivocal TMT
- 508. Most important test for detection of peripheral pulmonary embolism is**
- (a) Echo
  - (b) Lung scan
  - (c) Pulmonary angiography
  - (d) Spiral CT screening
- 509. Most common causes of reversible hypertension is**
- (a) Pregnancy endeared HT
  - (b) Pheachromacytoma
  - (c) Alcohol abase > 3 drink/day
  - (d) Porphyria
- 510. Most commonly used treatment of pulmonary embolism is**
- (a) Heparin
  - (b) Thrombolysis
  - (c) Surgical embolecting
  - (d) Catheter thrombosis fragmentation
- 511. Elderly hypertensive patients derive most benefit from therapy because of the following except**
- (a) At high risk
  - (b) Higher systolic blood pressure
  - (c) Lowering of systolic blood pressure crucial
  - (d) More responsive to treatment

- 512. Which antihypertensive agent produces hemolytic anemia?**
- (a)  $\beta$ -blockers
  - (b) Ca-blocker
  - (c) Methyldopa
  - (d) ACE inhibitors
- 513. Eruptive xanthomas are usually present in**
- (a) Increased TG
  - (b) Increased TC
  - (c) Increased TG + TC
  - (d) Decreased HDLC
- 514. Symptomatic CAD with diffuse atherosclerosis not amenable for revascularization the preferred treatment is**
- (a) Enhanced external comter pulsation
  - (b) Spinal cord stimulation
  - (c) Gene therapy
  - (d) Metabolic modulators of myocardial ischemia
- 515. Refractory cases of microvascular angina are best treated by**
- (a) Aminophylline
  - (b) Imipramine
  - (c) Estrogen
  - (d) All of the above
- 516. Microvascular angina is characterized by all the following except**
- (a) Atypical chest pain
  - (b) More in females
  - (c) Spasm of coronary arteries play dominant role
  - (d) Positive stress test
- 517. Abdominal aortic aneurysm needs surgery if**
- (a) 3 cm in diameter
  - (b) 4 cm in diameter
  - (c) 5 cm in diameter
  - (d) > 5.5 cm in diameter with symptoms
- 518. Postural tachycardia syndrome is caused by all the following except**
- (a) Post viral
  - (b) Diabetes mellitus
  - (c) Amyloidosis
  - (d) Coronary artery disease

- 519. Takayasu's arteritis has all the following features except**
- (a) Predominantly occurs in asian females > 40 years
  - (b) Evidence of diffuse vascular disease
  - (c) Vascular aneurysm are found
  - (d) Renovascular hypertension
- 520. Commonest risk factor for myocardial infarction with normal coronary arteries**
- (a) Diabetes mellitus
  - (b) Hypertension
  - (c) Hyperlipidemia
  - (d) Smoking
- 521. All the following are the features of myocardial infarction with normal coronary arteries except**
- (a) Occurs often in young
  - (b) Spasm may be a factor
  - (c) Hyperlipidemia is often found
  - (d) None of the above
- 522. Most specific electrocardiographic sign of atrial infarction is**
- (a) PR segment elevation
  - (b) Bifid P in L2
  - (c) Increase P in V1
  - (d) Atrial arrhythmia
- 523. Commonest cardiovascular feature of polyarteritis nodosa is**
- (a) Hypertension
  - (b) Myocardial infarction
  - (c) Valvular heart disease
  - (d) Pericardial disease
- 524. Post prandial angina typically indicates all the following except**
- (a) Extensive disease
  - (b) Proximal occlusion
  - (c) Impaired LV function
  - (d) Mild disease
- 525. Which precipitator of angina indicates severe coronary artery disease**
- (a) Effort
  - (b) Emotion
  - (c) Cold weather
  - (d) Post meals

- 526. Least common arrhythmia in acute myocardial infarction is**
- (a) Atrial fibrillation
  - (b) Atrial flutter
  - (c) Ventricular fibrillation
  - (d) Accelerated idioventricular rhythm
- 527. All the following statements are true except in myocardial bridging**
- (a) External compressive epicardial artery
  - (b) Can lead to myocardial infarction
  - (c) Is common in normal hearts
  - (d) Bridged arterial segments are prone to atherosclerosis
- 528. Which of the following plaque is most vulnerable to produce thrombosis?**
- (a) Thin cap fibroatheroma
  - (b) Erosion
  - (c) Calcified nodule
  - (d) All of the above
- 529. Which is best biomarker to predict mortality in non ST elevation acute myocardial infarction?**
- (a) Troponin-T
  - (b) Troponin-I
  - (c) NT-Pro BNP
  - (d) C-Reactive proteins
- 530. Which biomarker has strongest relationship with development of subsequent myocardial infarction?**
- (a) Troponin-T
  - (b) BNP
  - (c) C-Reactive protein
  - (d) All the above
- 531. All the following situations favour ACE inhibitors as first choice in hypertension except**
- (a) Type 2 DM
  - (b) Gout
  - (c) Hyperlipidemia
  - (d) Perioperative hypertension

**532. All the following situations favour use of diuretics as first choice in hypertension except**

- (a) With high salt intake
- (b) Renal disease with Na retention
- (c) Blacks
- (d) Gout

**533. All the following situations favour initial use of calcium antagonists in hypertension except**

- (a) Blacks
- (b) High salt intake
- (c) Associated vasospastic angina
- (d) Perioperative hypertension

**534. All the following situations favour initial use of Beta-blockers in hypertension except**

- (a) Associated coronary artery disease
- (b) Bilateral renal artery stenosis
- (c) Migraine
- (d) Variant angina

**535. Antihypertensive drug of choice in elderly is**

- (a) Diuretics
- (b) ACE Inhibitors
- (c) Ca-blockers
- (d)  $\beta$ -blockers

**536. ST elevation in unstable angina usually indicates**

- (a) Small vessel disease
- (b) Double vessel disease
- (c) Triple vessel disease
- (d) Normal coronary arteries

**537. Protective effect of moderate alcohol consumption is related to all the following mechanism except**

- (a) Increase HDL-C
- (b) Improvement of haemostatic factors
- (c) Reduction in insulin resistance
- (d) Decrease in LDL-C

**538. Least reduction of blood pressure is achieved by which life style modification**

- (a) Regular exercise
- (b) Limited alcohol intake
- (c) Na restriction
- (d) DASH eating plan

- 539. Which dietary changes maximally decreases LDL cholesterol?**
- (a) Saturated Fat < 7 % of calories
  - (b) Dietary cholesterol < 200 mg/day
  - (c) Weight loss (10 pound)
  - (d) Total LDL cholesterol decrease
- 540. Both CABG and AVR is needed in AS in which coronary artery involvement**
- (a) RCA lesion
  - (b) LAD lesion
  - (c) Cx lesion
  - (d) Left main lesion
- 541. In inferior myocardial infarction AV conduction defect has all the following features except**
- (a) Site of block is AV node
  - (b) Artery involved is RCA
  - (c) Narrow QRS complex
  - (d) Often permanent
- 542. In anterior myocardial infarction AV conduction defect has all the following features except**
- (a) Wide QRS
  - (b) Ventricular rate < 40/min
  - (c) 4 time more mortality vs compared to without block
  - (d) Permanent
- 543. Which statement is incorrect regarding lower extremity blood pressure in normal person?**
- (a) Systolic blood pressure is same as upper extremity
  - (b) Systolic blood pressure is higher in lower extremity than upper extremity
  - (c) DBP is lower in lower extremity than upper extremity
  - (d) All of the above
- 544. Ambulatory blood pressure measurement is helpful all the following except**
- (a) Excluding white coat hypertension
  - (b) Hypertension with out target organ damage
  - (c) To ascertain prognosis
  - (d) To identify nocturnal dipping status

- 545. Family history is positive in essential hypertension in what percentage of patients**
- (a) < 20%                      (b) 40%  
(c) 60%                          (d) > 80%
- 546. Arterial stiffness is reduced by all the following in hypertension except**
- (a) Salt decrease              (b) Weight decrease  
(c) Physical activity        (d) Diuretics
- 547. Which of the following is convenient method for settling the issue of pseudo hypertension?**
- (a) Finger blood pressure measurement  
(b) Wrist blood pressure  
(c) Direct recording (intravascular)  
(d) All of the above
- 548. All the following factors are associated with nocturnal nondipping in hypertension except**
- (a) DM                              (b) Old age  
(c) LVH                            (d) Hyperlipidemia
- 549. When measuring the blood pressure which is Better?**
- (a) Bell of stethoscope  
(b) Diaphragm of stethoscope  
(c) Either of the above  
(d) Finger palpatron
- 550. All the following are causes of low renin hypertension except**
- (a) Hyperaldosteronism  
(b) Essential hypertension  
(c) Pheochromocytoma  
(d) Parenchymal renal disease
- 551. All the following are causes of normal rennin hypertension except**
- (a) Essential hypertension  
(b) Cushing's syndrome  
(c) Coarctation of aorta  
(d) Adrenal carcinoma
- 552. Most common arrhythmia in acute anterior myocardial infarction is**
- (a) VT                              (b) CHB  
(c) VF                              (d) AF

**553. Most common complication of PTCA is**

- (a) Prolonged angina
- (b) Myocardial infarction
- (c) Coronary dissection
- (d) Coronary spasm

**554. All the following ischemia syndromes are associated with coronary artery spasm except**

- (a) Prinzmetal's angina
- (b) MVP
- (c) Monday morning angina in nitroglycerin workers
- (d) Aortic stenosis

**555. Most common arrhythmia in acute myocardial infarction is**

- (a) PVC
- (b) VT
- (c) Sinus brady cardia
- (d) CHB

**556. All following metals are related to hypertension development except**

- (a) Lead
- (b) Arsenic
- (c) Carbon disulphide
- (d) Copper

**557. All following blood components are related to hypertension except**

- (a) RBC count
- (b) WBC count
- (c) Fibrinogen level
- (d) Platelets count

**558. Following coronary risk factors is internal have been proved to lower risk except**

- (a) Smokning
- (b) Elevated LDL-C
- (c) Hypertension
- (d) DM

**559. All following risk factors if internal am likely to lower risk except**

- (a) DM
- (b) Decrease HDL-C
- (c) Increase TG
- (d) Thrombogenic with risk factures

**560. Nitrates are indicated in acute myocardial infarction in all the following situations except**

- (a) Ongoing ischemia in acute myocardial infarction
- (b) Hypertension

- (c) LVF
- (d) Right ventricular infarction

**561. Less regression of LVH in hypertensive occurs with which of the following?**

- (a) ACE Inhibitors
- (b) ARBs
- (c) Ca-blocker
- (d)  $\beta$ -blockers

**562. In hypertensive pilots which drug is avoided?**

- (a) ACE Inhibitors
- (b) ARBs
- (c) Ca-blockers
- (d) Clonidine

**563. Which antihypertensive drug can causes increased bleeding during surgery?**

- (a)  $\beta$ -blockers
- (b) Ca-blockers
- (c) ACE inhibitors
- (d) Clonidine

**564. Phentolamine is specifically indicated in which hypertension?**

- (a) Essential hypertension
- (b) Pregnancy related HT
- (c) Hypertension in phaeochromocytoma
- (d) Hypertension related to increased intracranial hypertension

**565. ARBs are potentially better than ACE inhibitors in which following situation?**

- (a) Hypertension
- (b) Proteinuric renal disease
- (c) Heart failure
- (d) Neuroprotection

**566. ACE inhibitors are superior to ARB's in which of the following situation?**

- (a) Hypertension
- (b) Proteinuric renal disease
- (c) Heart failure
- (d) Reduction of heart attacks in high risk patients

**567. Combination of ACE inhibitors and ARBs is particularly useful in which condition?**

- (a) Hypertension
- (b) Heart failure
- (c) Proteinuric patients
- (d) Neuroprotection

- 568. All the following antihypertensive drugs are primary vasodilators except**
- (a) Ca-blockers
  - (b)  $\alpha$ -blockers
  - (c) ACE inhibitors/ARBs
  - (d) Diuretics
- 569. All the following are clinical characteristics of accelerated malignant hypertension except**
- (a) Diastolic blood pressure usually > 140 mm Hg
  - (b) LVH
  - (c) Fundus shows hemorrhage, exudates, papilloedema
  - (d) Renal dysfunction
- 570. Which of the following antihypertensive drug initially reduces cardiac output?**
- (a) ACE inhibitors
  - (b) ARB's
  - (c)  $\beta$ -blockers
  - (d) Ca-blockers
- 571. All the following antihypertensives require no dose modification in CRF except**
- (a) Ca-blockers
  - (b) ARBs
  - (c) Clonidine
  - (d) ACE inhibitors
- 572. All the following antihypertensive require dose modification in CRF except**
- (a) ACE inhibitors
  - (b) Atenolol
  - (c) Nadolol
  - (d)  $\alpha$ -blockers
- 573. All the following antilipidemic drugs require dose modification except**
- (a) Statins
  - (b) Fenofibrates
  - (c) Benofibrates
  - (d) Ezetimibe
- 574. Which antilipidemic agent reduces proteinuria and slow the progression of CRD?**
- (a) Simvastatin
  - (b) Fenofibrate
  - (c) Atorvastatin
  - (d) Lovastatin
- 575. Which ARB causes abdominal pain?**
- (a) Losartan
  - (b) Valsartan
  - (c) Irbesartan
  - (d) Telmesartan
- 576. Maximum reduction of blood pressure occurs with which ARB?**

- (a) Olmesartan            (b) Valsartan  
(c) Telmesartan        (d) Losartan

**577. Aerobic exercise reduces blood pressure by all the following mechanisms except**

- (a) Increase NO production  
(b) Decreases sympathetic activity  
(c) Decreases arterial stiffness  
(d) Decreases stroke volume

**578. Which insect bite may causes hypertension?**

- (a) Spider                    (b) Scorpion  
(c) Both of the above    (d) None of the above

**579. Clonidine may be particularly useful in hypertensive with following conditions except**

- (a) Restless leg syndrome  
(b) Menopausal hot flushes  
(c) Diarrhoea due to diabetic nephropathy  
(d) To prevent recurrent stroke

**580.  $\alpha$ -blockers are particularly useful in hypertension with all the fancus except**

- (a) BPH                      (b) Impotence  
(c) Increase lipids  
(d) Postural hypertension

**581. Hypertension in hypothyroidism has all following features except**

- (a) More often diastolic hypertension  
(b) Have highest SNS activity  
(c) Is a volume dependent hypertension  
(d) Have low cardiac output

**582. Hypertension in hyperthyroid is has all following features except**

- (a) Both systolic and diastolic hypertension  
(b) Only stolic hypertension  
(c) Diastolic blood pressure normal  
(d) Only systolic hypertension

**583 Only prover effective means of treating in-restenosis is**

- (a) PTCA  
(b) Cutting balloon angioplasty  
(c) Rotablation drug    (d) Brachy therapy

- 584. All following are mechanism of hypertension in obstructive sleep apnea except**
- (a) Increase SNS activity
  - (b) Increase endothelin 1
  - (c) Blunted vasodilating response
  - (d) Increased cardiac output
- 585. Persistent severe hypertension of head injury is best treated by**
- (a) IV nitroprusside
  - (b) Hydralazine
  - (c) IV Esmolol
  - (d) IV Nitroglycerone
- 586. Which antihypertensive agent causes rebound hypertension on withdrawal?**
- (a) Thiazides
  - (b)  $\beta$ -blockers
  - (c) Clonidine
  - (d) Amlodipine
- 587. Best drug for hypertensive in post menopausal women is**
- (a) Ca-blocker
  - (b)  $\beta$ -blockers
  - (c) ACE inhibitor
  - (d) Thiazide diuretic
- 588. Which life style modification reduces blood pressure maximally?**
- (a) Weight reduction
  - (b) DASH eating plan
  - (c) Sodium reduction
  - (d) Moderate alcohol consumption
- 589. P<sub>2</sub>Y<sub>12</sub> inhibitors are used as**
- (a) Anti arrhythmic
  - (b) Anti ischemic
  - (c) Anti congestive
  - (d) All of the above
- 590. Silent ischemia occurs least frequently in**
- (a) LAD lesion
  - (b) Cx lesion
  - (c) RCA lesion
  - (d) Extensive coronary artery disease
- 591. Pathological hallmark of pulmonary arterial hypertension is**
- (a) Proliferation of endothelial cells
  - (b) Proliferation of smooth muscle cells
  - (c) Myofibroblast
  - (d) Macrophages
- 592. Most commonly used treatment of pulmonary embolism in community hospital is**

- (a) Heparin
  - (b) Thrombolytics
  - (c) Embolectomy
  - (d) Catheter thrombus fragmentation
- 593. All the following lipoprotein classes have ApoB100 except**
- (a) VLDL
  - (b) HDL
  - (c) IDL
  - (d) LDL
- 594. All the following statins are lipophilic except**
- (a) Simvastatin
  - (b) Pravastatin
  - (c) Atorvastatin
  - (d) Rosuvastatin
- 595. All the following are more common in females than males in ACS except**
- (a) Mortality
  - (b) Pulmonary edema
  - (c) Cardiogenic shock
  - (d) VF
- 596. Maximum risk reduction occurs with which strategy in patients with established cardiovascular disease**
- (a) Lipid lowering
  - (b) Beta-blockers
  - (c) ACE inhibitors
  - (d) Aspirin
- 597. Which of the following drug is most proven to reduce mortality in acute myocardial infarction both in early phase and at long-term**
- (a) Verapamil
  - (b) Magnesium
  - (c) Nitrates
  - (d)  $\beta$ -blockers
- 598. Oral drug in hypertension emergencies is**
- (a)  $\beta$ -blockers
  - (b) Diuretic
  - (c) Captopril
  - (d) Losartan
- 599. All the following are correct for step I diet except**
- (a) Total fat < 40 %
  - (b) Saturated fat < 10 %
  - (c) Cholesterol < 300 / day
  - (d) All of the above
- 600. All the following are correct for step II diet**
- (a) Total fat < 30 %
  - (b) Saturated fat < 7 %
  - (c) Cholesterol 250 mg / day
  - (d) None of the above

- 601. TG is Increased by which Hypolipidemic Agent?**
- (a) Atorvastatin (b) Gemofibrozil  
(c) Cholestyramine (d) Nicotnic acid
- 602. HDL-C increased by all except**
- (a) Nicotenic acid (b) Cremfibiozil  
(c) Probucaal (d) Atorvastatin
- 603. Which histological changes pulmonary vascular tree indicates irreversible pulmonary vascular obstruction?**
- (a) Medial thickening (b) Intimal thickening  
(c) Both (a) and (b) (d) Plexi form lesion
- 604. Which of the following indicates good myocardial function in heart disease?**
- (a) Sinus bradycardia (b) Sinus tachycardia  
(c) Sinus arrhythmia (d) None of the above
- 605. Which secondary systemic hypertensives usually do not exhibit fundal changes?**
- (a) Renal  
(b) Coarctation of sorta  
(c) Hyperaldsteronism  
(d) Pregnancy telated hypertension
- 606. First line drug for treatment of uncomplicated hypertension in patients < 55 years age is**
- (a)  $\beta$ -blocker (b) Thiazides  
(c) ACE inhibitors (d) Any of the above
- 607. Sphygmometer is a instrument to measure which one of the following?**
- (a) Femoral artery pressure  
(b) Brachial artery pressure  
(c) Aortic pressure  
(d) None of the above
- 608. Which of the following location for blood pressure measurement is ideal?**
- (a) Aortic pressure  
(b) Brachial artery pressure  
(c) Femoral artery pressure  
(d) All the above

**609. Best drug to reduce central aortic pressure is**

- (a) ACE inhibitors
- (b)  $\beta$ -blockers
- (c) Diuretics
- (d) Methyldopa

**610. Most common cause of chest pain at rest**

- (a) Unstable angina
- (b) Variant angina
- (c) Non cardiac chest pain
- (d) Acute myocardial infarction

**611. Pumpkin heart is found in**

- (a) Large pericardial effusion
- (b) Severe congestive heart failure
- (c) Ebstein's anomaly
- (d) Transposition of great arteries

**612. Acute apical VSD following acute myocardial infarction has all following feature except**

- (a) Often occurs in acute anterior myocardial infarction
- (b) Often occurs during first myocardial infarction
- (c) Often occurs with associated hypertension
- (d) Often occurs in young

**613. Most common risk factor for development of ascending aortic aneurysm is**

- (a) Smoking
- (b) Hyperlipidemia
- (c) Hypertension
- (d) Age over 65 years

**614. Best initial screening test for ascending aortic aneurysm is**

- (a) Ultrasound
- (b) CT
- (c) Angiography
- (d) All the above

**615. Microvascular angina does not occurs at which time of the day?**

- (a) Morning hours
- (b) Afternoon
- (c) Evening
- (d) Night

**616. Drug of choice for refractory microvascular angina**

- (a) Antiplatelet
- (b) Nitrates
- (c) Ca-blockers
- (d) Imipramine

- 617. Which of the following drug is avoided in cocaine induced increase acute coronary syndrome?**
- (a) Nitrates
  - (b) Aspirin
  - (c) Thrombolytics agents
  - (d)  $\beta$ -blockers
- 618. LV aneurysm occur commonly with**
- (a) Single vessel disease
  - (b) Small vessel disease
  - (c) Double vessel disease
  - (d) Multi vessel disease
- 619. Rupture of free wall of which chamber is most common in acute myocardial infarction**
- (a) Left ventricle
  - (b) Right ventricle
  - (c) Right atrium
  - (d) Left atrium
- 620. Which therapy has reduced the frequency of LV free wall rupture in acute myocardial infarction?**
- (a) Antiplatelet
  - (b) Thrombolytics
  - (c) Anticoagulants
  - (d) Nitrates
- 621. In which anginal syndrome aspirin increase severity of ischemia?**
- (a) S4
  - (b) Minimal effort angina of recent onset
  - (c) Acute myocardial infarction
  - (d) Variant angina
- 622. Variant angina is common in**
- (a) India
  - (b) China
  - (c) Japan
  - (d) Pakistan
- 623. Which syndrome of myocardial ischemia presents with severe chest pain**
- (a) SA
  - (b) Progressive SA
  - (c) Acute myocardial infarction
  - (d) Variant angina
- 624. Which is best drug to reduce silent myocardial ischemia?**
- (a) Nitrates
  - (b)  $\beta$ -blockers
  - (c) Ca-blockers
  - (d) Antiplatelet agent

- 625. All following Beta-blockers are best studied in post infarct protection except**
- (a) Atenolol
  - (b) Propranolol
  - (c) Metoprolol
  - (d) Carvedilol
- 626. Which of the following cholesterol reduction correlate best with cardiovascular risk reduction?**
- (a) Decrease total cholesterol
  - (b) Decrease LDL cholesterol
  - (c) Decrease TG
  - (d) Increase HDL-C
- 627. Maximum efficacy of lipid lowering treatment is achieved in**
- (a) 1 week's time
  - (b) 2 week's time
  - (c) 3 week's time
  - (d) 4 week's time
- 628. At what age systolic BP is most important risk factor than diastolic blood pressure?**
- (a) Age 10 – 20 years
  - (b) Age 20 – 25 years
  - (c) Age 26 – 40 years
  - (d) Age > 50 years
- 629. Single most effective therapy in uncomplicated hypertension is**
- (a) Low dose thiazide diuretics
  - (b) Calcium blocker
  - (c)  $\beta$ -blockers
  - (d) ACE inhibitors
- 630. Which  $\beta$ -blockers might not increase the risk of stroke in treatment of hypertension?**
- (a) Atenolol
  - (b) Propranolol
  - (c) Metoprolol
  - (d) Nebivolol
- 631. Addition of ezetimibe to statins causes additional reduction LDL-C by**
- (a) 10 %
  - (b) 20 %
  - (c) 15 %
  - (d) 25 %
- 632. Beneficial effects of statins are related to**
- (a) Age
  - (b) Gender
  - (c) Base line serum cholesterol
  - (d) All the above

- 633. Which of the following antianginal agents has no haemodynamic effect?**
- (a) Nitrates (b) Nicorandil  
(c) Trimetazidine (d) Beta-blockers
- 634. In middle aged and elderly total and vascular mortality is strongly and directly correlated with blood pressure beyond**
- (a) 120/80 (b) 115/75  
(c) 130/90 (d) 140/89
- 635. Which blood pressure is better indication of cardiovascular risk?**
- (a) Systolic blood pressure  
(b) Diastolic blood pressure  
(c) Both (a) and (b)  
(d) Mean arterial pressure
- 636. How frequent is LVH in severe hypertension on echo?**
- (a) 20% (b) 30%  
(c) 40% (d) 50%
- 637. Which antihypertensive does not reduce LVH in hypertension?**
- (a) ACE inhibitor (b) Diuretics  
(c) Beta-blockers (d) Minoxidil
- 638. Significant reduction of blood pressure occurs with how much reduction in weight**
- (a) 2 kg (b) 3 kg  
(c) 4 kg (d)  $\geq 4.5$  kg
- 639. In practice what level of salt intake is recommended?**
- (a) 2 g/day (b) 3 g/day  
(c) 4 g/day (d) 6 g/day
- 640. In posterior myocardial infarction direct changes are seen in which leads?**
- (a) V1 – V2 (b) V5 – V6  
(c) L1 – aVR (d) V8 – V9
- 641. All following antihypertensives cause sinus node dysfunction except**
- (a) Clonidine (b)  $\beta$ -blockers  
(c) Methyldopa (d) Losartan

- 642. Use of  $\beta$ -blocker in STEMI benefits in all the following except**
- (a) Recurrent ischemia reduction
  - (b) Reduction in ventricular ectopics
  - (c) Reduction progression threatened infarction to completed infarction
  - (d) Reduces development AV block
- 643. On predischarge exercise ECG in acute myocardial infarction which of the parameter has highest sensitivity of cardiac death?**
- (a) ST depression
  - (b) Impaired systolic blood pressure
  - (c) Exercise duration (d) Angina
- 644. On predischarge exercise ECG in acute myocardial infarction which of the following parameter has highest specificity for cardiac death?**
- (a) ST depression
  - (b) Impaired systolic blood pressure
  - (c) Exercise duration (d) Angina
- 645. For late detection (22 hours after chest pain) of acute myocardial infarction which test is most sensitive and specific?**
- (a) Trop-T
  - (b) Trop-I
  - (c) Total CK-MB activity
  - (d) Total CK-MB mass
- 646. Which test more sensitive marker of acute myocardial infarction at 2 hours after chest pain?**
- (a) Total CK-MB activity
  - (b) Myoglobin
  - (c) Troponin T
  - (d) Troponin I
- 647. Which test is most specific marker of acute myocardial infarction at 2 hours after chest pain?**
- (a) Total CK-MB activity
  - (b) Troponin T
  - (c) Troponin I (d) Myoglobin

- 648. Hibernating myocardium has all following feature except**
- (a) Reduced coronary flow
  - (b) Typical histological changes
  - (c) No lactate production
  - (d) Recovers spontaneously
- 649. All following factors are thrombogenic except**
- (a) Hypercholesteremia
  - (b) DM
  - (c) Hypertension
  - (d) Smoking
- 650. All the following conditions may be associated with coronary vasculitis except**
- (a) Buerger's disease
  - (b) Marfan's syndrome
  - (c) Infective endocarditis
  - (d) Polyarterites nodosa
- 651. Spontaneous coronary artery dissection may occur in all the following condition except**
- (a) Pericardium
  - (b) Hypertension
  - (c) Aortic root dissection
  - (d) Diabetes mellitus
- 652. HDL-C is maximally increased by**
- (a) Status
  - (b) Niacin
  - (c) Omega-3 fatty acids
  - (d) Resins
- 653. TG is maximally decreased by**
- (a) Fibrates
  - (b) Statins
  - (c) Omega-3 fatty acids
  - (d) Ezetimibe
- 654. All following drugs if used with statins are risk factors for development of myopathy except**
- (a) Cyclosporins
  - (b) Azoles antifungale
  - (c) Macrolide antibiotics
  - (d)  $\beta$ -blockers

- 655. LDL-C is maximally reduced by**
- (a) Statins
  - (b) Niacin
  - (c) Fibrates
  - (d) Ezetimibe
- 656. Which drug produces coronary vasospasm?**
- (a) Doxorubicin
  - (b) 5-Fluorouracil
  - (c) Cyclophosphamide
  - (d) Interleukin-2
- 657. Which vascular ulcer has most severe pain?**
- (a) Venous
  - (b) Arterial
  - (c) Neuropathic
  - (d) Arteriolar
- 658. Wet vascular ulcer is found in**
- (a) Venous
  - (b) Neuropathic
  - (c) Arterial
  - (d) Arteriolar
- 659. Which antihypertensive drug produces neonatal meconium ileus during pregnancy?**
- (a) Diuretics
  - (b)  $\beta$ -blockers
  - (c) Methyldopa
  - (d) Ganglionic blockers
- 660. Which antihypertensive drug in pregnancy produces neonatal thrombocytopenia?**
- (a) Thiazides
  - (b) Methyldopa
  - (c) Clonidine
  - (d) Reserpine
- 661. Systemic vascular resistance is decreased most by**
- (a) Nitrous oxide
  - (b) Fentanyl
  - (c) Enflurane
  - (d) Morphine
- 662. Most sensitive method for detection of dissection of descending aorta is**
- (a) TTE
  - (b) TEE
  - (c) PT
  - (d) MRI
- 663. Most specific method for detection of dissection of arch aorta is**
- (a) TTE
  - (b) TEE
  - (c) CT
  - (d) MRI
- 664. Most specific method for detection of dissection ascending aorta**
- (a) TTE
  - (b) TEE
  - (c) CT
  - (d) MRI

- 665. Which is most sensitive method for detection of dissection of aorta?**
- (a) Trans thoracic echo
  - (b) Trans esophageal echo
  - (c) CT
  - (d) MRI
- 666. Increased activity of lipoprotein lipase occurs with which drug**
- (a) Nicotinic acid
  - (b) Statins
  - (c) Fibrates
  - (d) Ezetimibe
- 667. Increased activity of LDL receptors occurs with**
- (a) Nicotinic acid
  - (b) Statins
  - (c) Bile acid sequestrants
  - (d) Fibrates
- 668. Following are the common cardiac manifestation of hypertension except**
- (a) Heart failure
  - (b) Arrhythmia
  - (c) Ischemic syndrome
  - (d) Valvular lesion
- 669. All following vascular alteration in hypertension except**
- (a) Endothelial dysfunction
  - (b) Vascular remodeling
  - (c) Reduced compliance
  - (d) Reduced reactivity
- 670. All following drugs decrease digoxin plasma level except**
- (a) Neomycin
  - (b) Erythroycin
  - (c) Sulfasalazine
  - (d) P-Amino salicylic acid
- 671. Which is the rarest coronary artery anomaly?**
- (a) Separate ostia for LAD & LCX
  - (b) RCA from left CA
  - (c) Circumflex from right CA
  - (d) Single coronary artery

- 672. Most common complication with 24 hours of coronary angiography is**
- (a) Death
  - (b) Myocardial infarction
  - (c) VT
  - (d) Acute renal failure
- 673. Which is the common coronary artery anomaly?**
- (a) Separate ostia for LAD & LX
  - (b) Coronary-Pulmonary artery fistula
  - (c) RCA from left coronary sinus
  - (d) Single coronary artery
- 674. Most specific method for predicting cardiac CV event after myocardial infarction**
- (a) Rest ejection fraction
  - (b) Killip class
  - (c) Positive exercise test
  - (d) Anterior myocardial infarction
- 675. All following Ca-blockers have active metabolic except**
- (a) Verapamil
  - (b) Diltiazem
  - (c) Nifedipine
  - (d) All of the above
- 676. All following antihypertensive drugs may cause pericardial disease except**
- (a) Hydralazine
  - (b) Caplopril
  - (c) Minoxidial
  - (d) Diuretics
- 677. All following parasitic disease may involve pericardium except**
- (a) Amoebiasis
  - (b) Filariasis
  - (c) Hydatid disease
  - (d) None of these
- 678. All following fungal organism may involve pericardium except**
- (a) Actinomycosis
  - (b) Aspergillosis
  - (c) Candidiasis
  - (d) None of these
- 679. All following agents cause vasculitis except**
- (a) Gold
  - (b) Arsenic
  - (c) Lead
  - (d) DDT

- 680. Aortitis does not occurs in all following connective disorders except**
- (a) Rheumatoid arthritis
  - (b) Systemic lupus erythromatosis
  - (c) Scleroderm
  - (d) Ankylosing spondylitis
- 681. Which hematological disorder may cause hypertension?**
- (a) Anaemia
  - (b) CML
  - (c) Acute leukemia
  - (d) Sickle cell crisis
- 682. Which G1 disorder may cause hypertension?**
- (a) Pancreatitis
  - (b) Cholecystitis
  - (c) Acid peptic disease
  - (d) IBS
- 683. All are cause of systolic hypertension except?**
- (a) Aortic regurgitation
  - (b) In elderly
  - (c) Thyroloxicosis
  - (d) Increased intravascular volume
- 684. Which metal poisoning may cause hypertension?**
- (a) Copper
  - (b) Zinc
  - (c) Lead
  - (d) Arsenic
- 685. All following are intra arterial sources of embolic material except**
- (a) Thrombus
  - (b) AIR
  - (c) Cholesterol
  - (d) Tumor
- 686. All are cardiac sources of embolic material except**
- (a) Thrombus
  - (b) Vegetation
  - (c) Calcium
  - (d) Cholesterol
- 687. All following are gastrointestinal manifestation of atheroembolism except**
- (a) Mesenteric ischemia
  - (b) Splenic enlargement
  - (c) Pancreatitis
  - (d) Intestinal bleeding

- 688. All are neurological manifestation of athero-embolism except**
- (a) TIA
  - (b) Stroke
  - (c) Amaurosis fungax
  - (d) Subarachnoid hemorrhage
- 689. All are renal manifestation of atheroembolism except**
- (a) Renal failure
  - (b) Renal abscess
  - (c) Uncontrolled hypertension
  - (d) None of above
- 690. Statins interact with all the following drugs except**
- (a) Erythromycin
  - (b) Neomycin
  - (c) Antifungal
  - (d) Cyclosporin
- 691. All following natural agents are used in hypertension except**
- (a) Aconite
  - (b) Garlic
  - (c) Co QIW
  - (d) Ginkgobiloba
- 692. All are indication of nitrates in acute myocardial infarction except**
- (a) Persistent and recurrent chest pain
  - (b) Sustained hypertension
  - (c) Acute pulmonary edema
  - (d) Right ventricular infarction
- 693. Which nitrate preparation has longest duration of action?**
- (a) Oral isosorbide dinitrate
  - (b) Oral NTG
  - (c) NTG ointment
  - (d) NTG discs patch
- 694. Which Ca antagonist is vasculoselective?**
- (a) Flunarizine
  - (b) Nifedipine
  - (c) Nimodipine
  - (d) Diltiazem
- 695. Which Ca antagonist has complex pharmacological profile?**
- (a) Verapamil
  - (b) Nifedipine
  - (c) Beperail
  - (d) Felodipine

- 696. Which Ca antagonist has fastest onset of action when given orally?**
- (a) Diltiazem (b) Nifedipine  
(c) Verapamil (d) None of these
- 697. Which Ca antagonist interacts maximally with digoxin?**
- (a) Verapamil (b) Nifedipine  
(c) Diltiazem (d) None of these
- 698. Which antianginal increases cardiac contractility?**
- (a) Nitrates (b) Verapamil  
(c) Diltiazem (d)  $\beta$ -blockers
- 699. Which anti anginal does not dilate coronary arteries?**
- (a) Nitrate (b)  $\beta$ -blocker  
(c) Ca-blocker (d) All of the above
- 700. Which anti anginal does not reduce silent ischemia?**
- (a) Verapamil (b) Diltiazem  
(c)  $\beta$ -blocker (d) Nitrates
- 701. Tolerance develops to which antianginal?**
- (a) Nitrate (b) Verapamil  
(c) Diltiazem (d)  $\beta$ -blocker
- 702. Which drug is not used in variant angina?**
- (a) Nitrate (b)  $\beta$ -blockers  
(c) Verapamil (d) Diltiazem
- 703. Tinnitus occurs with which Ca antagonists**
- (a) Verapamil (b) Nifedipine  
(c) Diltiazem (d) All of the above
- 704. Which drug prevents sudden death and reinfarction?**
- (a) Nitrate (b) Nifedipine  
(c)  $\beta$ -blockers (d) Verapamil
- 705. Which drugs present sudden cardiac death in coronary artery disease?**
- (a)  $\beta$ -blockers (b) Aspirin  
(c) Statins (d) Ca-blockers

- 706. Which lipid lowering agent prolongs QT interval?**
- (a) Pravastatin (b) Resins  
(c) Fibrates (d) Probucal
- 707. Statins have which of the following properties?**
- (a) Antihypertensive (b) Cardioprotective  
(c) Antiischaemic (d) All of them
- 708. ACE inhibitor don't have which of the following property**
- (a) Anti ischamic  
(b) Antihypertension  
(c) Cardiovascular protective  
(d) All of them
- 709. Aspirin has which of the following action**
- (a) Antihypertension  
(b) Antiischaemic  
(c) Cardiovascular protective  
(d) All of the above
- 710. Which of the following properties is handed by  $\beta$ -blocker?**
- (a) Antiischamic (b) Antihypertensive  
(c) Cardioprotective (d) Cardioprotective
- 711. DBP maximally rass with which of the following activity compased to relaxing line**
- (a) Mecting (b) Corking  
(c) Entary (d) Dressing
- 712. Non dipping is associated with all the following except**
- (a) LVH  
(b) Normal renal function  
(c) DM  
(d) Obesity
- 713. Low blood pressure is recorded if it is measured in following situation except**
- (a) Arm above heart level  
(b) Too rapid deflation  
(c) Excess bell pressure  
(d) During talking

- 714. Maximum rise of SBP occurs complomed to relaxing stage all which activity**
- (a) Meetings
  - (b) Telephone
  - (c) Cature
  - (d) Walking
- 715. All following factors don't blood pressure accruing except**
- (a) Menstrual phase
  - (b) Chronic cafferise ingestion
  - (c) Thin shiot undercut
  - (d) Recent meal
- 716. High blood pressure recorded if measured in following situations except**
- (a) Cuff too narrow
  - (b) Arm below heart level
  - (c) Arm unsupported
  - (d) Low mercury level
- 717. In children which type of fibromusclar dysplasia of renal artery is most common?**
- (a) Intimal
  - (b) Medial
  - (c) Adventitial
  - (d) None of these
- 718. Which renal artery disease involves the ostia of renal artery?**
- (a) Atherosclerosis
  - (b) Fibromuscular dysplasia
  - (c) Arterio venous malformation
  - (d) Arteritis
- 719. All following are the clues for renovascular hypertension except?**
- (a) Worsening of hypertension
  - (b) Severe resistant hypertension
  - (c) Abdominal bruits
  - (d) Normal plasma renin
- 720. All following are indicators of renovascular hypertension except**
- (a) High renin level
  - (b) Normal resistance level
  - (c) Low serum  $K^+$
  - (d) Low serum Na
- 721. Which antihypertensive if given IV has no effect on after load?**
- (a) Labetalol
  - (b) Hydralazine
  - (c) Methyldopa
  - (d) Esmolol

- 722. Which IV antihypertensive increase renal perfusion?**
- (a) IV methyl dopa
  - (b) IV hydralazine
  - (c) IV sodium nitroprusside
  - (d) IV fenoldopam
- 723. Lactic acidosis occurs with which antihypertensive?**
- (a) IV sodium nitroprusside
  - (b) Hydralazine
  - (c) Methyl dopa
  - (d) Labetalol
- 724. All following cardiac condition are associated with platypnaea orthodeoxia syndrome except**
- (a) ASD
  - (b) Atrial septal aneurysm
  - (c) Mitral stenosis
  - (d) Persistant foramen ovale
- 725. All following disorder cause pulmonary hypertension except**
- (a) Schistosomiasis
  - (b) Sarcoidosis
  - (c) Histocytosis
  - (d) Trypanosomiasis
- 726. All following condition are associated with pulmonary hypertension with hypoxia except**
- (a) Interstitial lung disease
  - (b) Sleep disordered breathing
  - (c) Chronic exposure to high altitude
  - (d) Pleural effusion
- 727. All following are platelet dysfunction DM except**
- (a) Increased are chronic acid metabolism
  - (b) Increased are tyaz synthesis
  - (c) Decreased antioxidant levels
  - (d) Increased nitric oxide production
- 728. All following antihypertension have no effect on preload when given IV except**
- (a) IV methyl dopa
  - (b) IV hydralazine
  - (c) IV sodium nitroprusside
  - (d) IV labetalol

- 729. Prevention of cardiovascular disease is accomplished by all in DM except**
- (a) Statin
  - (b) ACE inhibitors
  - (c) AT1 blockers
  - (d) Hormone replacement therapy
- 730. Endothelial function is improved in DM by**
- (a) Statins
  - (b) ACE inhibitors
  - (c) Antioxidant
  - (d) All the above
- 731. All following are acute benefits of insulin and glucose therapy in acute myocardial infarction except**
- (a) Improve glucose oxidation
  - (b) Decrease TXA2 levels
  - (c) Vasodilation
  - (d) Arrhythmogenic
- 732. Post CABG stenosis is most common in**
- (a) RCA stenosis
  - (b) LMCA stenosis
  - (c) Lx stenosis
  - (d) LAD stenosis
- 733. All following are effects of hyperglycemia in acute myocardial infarction except**
- (a) Endothelial dysfunction
  - (b) Impaired ischemic preconditioning
  - (c) Reduced glucose oxidation
  - (d) Decrease cytosol oxidation
- 734. HDL-C is maximally increased by**
- (a) Statins
  - (b) Fibrates
  - (c) Niacin
  - (d) Ezetimibe
- 735. All following are clinical criteria for metabolic syndrome except**
- (a) DM
  - (b) Hypertension
  - (c) Obesity
  - (d) Increased LDL-C
- 736. All following are used for endothelial dysfunction except**
- (a) Life style modification
  - (b)  $\beta$ -blockers
  - (c) Statins
  - (d) Decrease ACE
- 737. Drug of choice for coronary spasm**
- (a) Aspirin
  - (b)  $\beta$ -blocker

- (c) Ca-blockers      (d) All of the above

**738. Drug of choice for myocardial bridging**

- (a)  $\beta$ -blockers      (b) Ca-blockers  
(c) Nitrate      (d) None of above

**739. Which parameter is of least predictive value for HOV associated myocarditis?**

- (a) VES  
(b) ST increase  
(c) Increase troponin I  
(d) CKMB

**740. Which is commonest secondary form of hypertension?**

- (a) Renovascular  
(b) Coarctation of aorta  
(c) Hypothyroidism  
(d) Pheochromocytoma

**741. Annuloectasic atresia has all following feature except**

- (a) Dilatation of aortic sinuses  
(b) Dilatation of ascending aorta  
(c) Dilatation of valve ring  
(d) Deformity of aortic cusps

**742. All following antihypertensive drugs produces edema except**

- (a) Nifedipine      (b) Reserpine  
(c) Hydralazine      (d)  $\beta$ -blockers

**743. ST elevation in ventricular aneurysm is due to all except**

- (a) Reinfarction  
(b) Subepicardial  
(c) Transmission of ventricular activity potentials  
(d) None of the above

**744. Commonest sign of LV aneurysm is**

- (a) Double apical impulse  
(b) Large area of apical impulse  
(c) Normal apical impulse  
(d) All the above

- 745. Paroxysmal and postural hypertension suggest**
- (a) Renal hypertension
  - (b) Essential hypertension
  - (c) Pheochromocytoma
  - (d) Thyrotoxicosis
- 746. Most common site ventricular aneurysm in myocardial infarction**
- (a) Apex
  - (b) Inferior wall
  - (c) Posterior wall
  - (d) All the above
- 747. All are clinical features of cardiac rupture except**
- (a) Occurs commonly in LV
  - (b) Severe in anterior and lateral wall
  - (c) Usually with long myocardial infarction
  - (d) Occurs after a week of myocardial infarction
- 748. Which one is pure arterial dilator?**
- (a) Prazosin
  - (b) Hydralazine
  - (c) Phentolamine
  - (d) Phenoxybenzamine
- 749. Which is the most potent lipid lowering agent in raising HDL-C levels?**
- (a) Statins
  - (b) Fibrates
  - (c) Cholestyramine
  - (d) Niacin
- 750. All following improve survival in acute myocardial infarction except**
- (a) Thrombolysis
  - (b) Antiplatelets
  - (c)  $\beta$ -blockers
  - (d) Nitrates
- 751. Which Ca-blocker causes reflex tachycardia?**
- (a) Amlodipine
  - (b) Nifedipine
  - (c) Diltiazem
  - (d) Verapamil
- 752. Which antihypertensive is not recommended as first line drug?**
- (a) Diuretic
  - (b) Ca-blocker
  - (c)  $\alpha$ -blocker
  - (d) ACE inhibitor
- 753. All are renal haemodynamic effects of felodipine except**
- (a) Increase NA and water excretion

- (b) Decrease vascular resistance
- (c) Decrease ischaemic damage
- (d) Increase filtration fraction

**754. Which is the drug of choice in first line of treatment in acute myocardial infarction?**

- (a) Morphine
- (b) Aspirin
- (c) Thrombolysis
- (d) Pentazocin

**755. 30 Days mortality after successful reperfusion is lowest in which location of coronary occlusion?**

- (a) Left circumflex
- (b) Right coronary artery
- (c) Proximal LAD
- (d) Mid LAD

**756. All discontinuation intervals before surgery of antiplatelets are correct except**

- (a) Aspirin-5 – 10 days
- (b) Clopidogrel-7 – 10 days
- (c) Dipyrimadole-2 days
- (d) Ticlopidine-3 days

**757. Withdrawal syndromes are associated with all the following except**

- (a) Clonidine
- (b)  $\beta$ -blockers
- (c) Sertraline
- (d) ACE inhibitors

**758. All the following genetic disorders causes low HDL-C except**

- (a) LCAT deficiency
- (b) CETP excess
- (c) Tangier's disease
- (d) Familial hypercholestroemia

**759. HDL-C reduced in all the following except**

- (a) Poorly controlled DM
- (b)  $\beta$ -blockers
- (c) Metabolic syndrome
- (d) Nephrotic syndrome

**760. Ezetimibe affects chiefly which lipid fraction?**

- (a) TG
- (b) LDL-C
- (c) HDL-C
- (d) All the above

**761. Omega 3 fatty acids act on**

- (a) TG
- (b) LDL-C
- (c) HDL-C
- (d) All the above

**762. Which level of HDL-C level is protective against CAD?**

- (a) < 45 mg %
- (b) 45–50 mg %
- (c) 50–55 mg %
- (d) > 60 mg %

**763. All following cardiac disorder occurs in obesity except**

- (a) Hyperlipidemia
- (b) Hypertension
- (c) Coronary artery disease
- (d) Pericardial effusion

**764. Which lipid abnormality is found in pancreatic disease?**

- (a) Increase TC
- (b) Increase LDL-C
- (c) Increase TG
- (d) Decrease HDL-C

**765. Intestinal angina has all of following features except**

- (a) Atherosclerosis of 2, 3 major arteries of gut
- (b) Mid abdominal pain
- (c) Worsening of symptoms during eating
- (d) Relieved by NTG

**766. All following factors modulate LVH in HT except**

- (a) Genetic factor
- (b) Dietary sodium
- (c) Sympathetic nervous system activation
- (d) Reduced angiotension II

**767. All are structural changes in angina heart except**

- (a) Cardiac weight decrease
- (b) LV mass increase
- (c) LVH is present
- (d) LA dilatation

**768. All following are the mechanism sinus of accelerated atherosclerosis is diabetes**

- (a) Endothelial dysfunction
- (b) Dyslipidemia
- (c) Impaired fibrinolysis
- (d) All the above

**769. HDL-C reduced by all the drugs except**

- (a) Probucal
- (b)  $\beta$ -blockers
- (c) Aspirin
- (d) Methyldopa

**770. Most beneficial antihypertensive therapy in term of years of life saved is**

- (a)  $\beta$ -blockers
- (b) Thiazides
- (c) ACE inhibitors
- (d) Ca-blockers

**771. In NIDDM all following lipid abnormalities occurs except**

- (a) Increase TG
- (b) Increase LDL
- (c) Increase TC
- (d) Decrease HDL

**772. Which size of aortic atheroma is likely to embolise to brain with high rate of recurrence?**

- (a) 1 mm
- (b) 2 mm
- (c) 3 mm
- (d) > 4 mm

**773. Which is commonest sign in pulmonary embolism?**

- (a) Rales
- (b) S4
- (c) Loud P2
- (d) S3

**774. Drug of choice for resistant hypertension**

- (a) Ca-blocker
- (b) Furosemide
- (c) Reserpine
- (d) Minoxidil

**775. Drug of choice in hypertensive subarchnoid hemorrhage**

- (a) Amlodipine
- (b) Nifedipine
- (c)  $\beta$ -blockers
- (d) Nimodipine

**776. All following antihypertensives decrease microalbuminuria**

- (a) ACE inhibitors
- (b) Amlodipine
- (c) Diuretics
- (d)  $\beta$ -blocker

**777. All of following antihypertensives have no effect on microalbuminuria**

- (a) Methyldopa
- (b) Clonidine
- (c)  $\beta$ -blocker
- (d) Diltiazem

**778. All following antihypertensive increase microalbuminuria except**

- (a) Minoxidil
- (b) Nifedipine
- (c) Amlodipine
- (d) Verapamil

**779. Drug of choice for hypertensive crisis in pheochromocytoma**

- (a) Nitroprusside
- (b)  $\beta$ -blocker
- (c) Phentolamine
- (d) Nitroglycerine

**780. Which thrombolytic agent has low clot selectivity?**

- (a) Streptokinase
- (b) Reteplase
- (c) Tenecteplase
- (d) tPA

**781. Which thrombolytic agent causes hypotension?**

- (a) PA
- (b) Streptokinase
- (c) Reteplase
- (d) Tenecteplase

**782. Allergic reaction occurs with which thrombolytic agent?**

- (a) Streptokinase
- (b) Reteplase
- (c) Tenecteplase
- (d) tPA

**783. Papilledema occurs in which cardiac vascular disorder?**

- (a) Malignant hypertension
- (b) Pulmonary hypertension
- (c) AV disease
- (d) Thyrotoxic heart disease

**784. PTCA affects most which of the event in coronary artery disease?**

- (a) Increase in coronary flow reserve
- (b) Reduction in stenosis
- (c) Increase in exercise tolerance
- (d) Reduction in mortality

**785. CABG affects most which event in coronary artery disease?**

- (a) Increase in coronary flow reserve
- (b) Increase in exercise tolerance
- (c) Reduction in mortality
- (d) Reduction in non fatal cardiovascular events

**786. How much cholesterol is recommended in step II dietary management of lipids?**

- (a) 200 – 300 mg%
- (b) > 300 mg%
- (c) < 200 mg%
- (d) 350 – 400 mg%

- 787. Mode of action all following thrombolytic agents is direct except**
- (a) Streptokinase
  - (b) Urokinase
  - (c) Alteplase
  - (d) Reteplase
- 788. Which of the following effects is most affected by lipid management in CAD?**
- (a) Reduction in stenosis
  - (b) Increase in exercise tolerance
  - (c) Reduction in cardiovascular events
  - (d) Reduction in mortality
- 789. Gastro intestinal symptoms maximally occurs with**
- (a) Verapamil
  - (b) Diltiazem
  - (c) Nifedipine
  - (d)  $\beta$ -Blockers
- 790. Which calcium blocker is maximal myocardial depressant?**
- (a) Verapamil
  - (b) Nifedipine
  - (c) Diltiazem
  - (d) None of above
- 791. Maximal LV dysfunction occurs with which drug**
- (a) Diltiazem
  - (b) Nifedipine
  - (c) Verapamil
  - (d) Nitrates
- 792. Headache/flushing maximally occurs with**
- (a) Nifedipine
  - (b) Verapamil
  - (c) Diltiazem
  - (d)  $\beta$ -blockers
- 793. Best antianginal agent when patient has concomitant peripheral vascular disease**
- (a) Amlodipine
  - (b)  $\beta$ -blockers
  - (c) Nitrates
  - (d) Verapamil
- 794. All are causes of disturbed coronary microcirculation except**
- (a) Anaemia
  - (b) Hypertension
  - (c) Hyperlipidemia
  - (d) Endothelial dysfunction
- 795. All following physiological conditions are associated with venous thrombo-embolism except**
- (a) Young
  - (b) Elderly
  - (c) Obesity
  - (d) Post partem

- 796. All following orthopedic surgery require prophylaxis of deep vein thrombosis except**
- (a) Total hip replacement
  - (b) Total knee replacement
  - (c) Hip fracture
  - (d) Upper extremity fracture
- 797. Which activity require maximum energy cost (METs)?**
- (a) Walking 3 MPH
  - (b) Sexual activity
  - (c) Cycling
  - (d) Swimming
- 798. In acute myocardial infarction which of the following is most common**
- (a) Single vessel disease
  - (b) Double vessel disease
  - (c) Triple vessel disease
  - (d) Left main disease
- 799. Preferred antihypertensive drug in cyclosporine induced hypertension is**
- (a)  $\alpha$ -blocker
  - (b)  $\beta$ -blocker
  - (c) Diuretic
  - (d) Ca-blocker
- 800. Most commonly used drug for prevention and treatment of eclampsia**
- (a) Nifedipine
  - (b) Methyldopa
  - (c)  $\beta$ -blocker
  - (d) Magnesium sulphate
- 801. All following hypertensive emergencies with acute myocardial infarction except**
- (a) Acute left ventricular failure
  - (b) Aortic dissection
  - (c) Microangiopathic haemolytic anaemia
  - (d) Rupture of papillary muscle
- 802. Most specific and sensitive test for diagnosis of renovascular hypertension is**
- (a) Renal arteriography
  - (b) Rapid sequence IVP
  - (c) Captopril renal scan
  - (d) MRI
- 803. Preferred antihypertensive drug in Liddle's syndrome is?**

- (a) ACE inhibitors      (b)  $\beta$ -blockers  
(c) Amiloride          (d)  $\alpha$ -blockers

**804. LV aneurysm after myocardial infarction has all following features except**

- (a) Occurs within 3 months post myocardial infarction  
(b) ECG shows ST increase  
(c) Seen with large Q infarct with LVH  
(d) Causes severe heart failure

**805. In postural hypotension all following are found except**

- (a) Increase HR  
(b) Decrease HR  
(c) SBP decrease  
(d) DBP increase or constant

**806. Parasympathetic stimulation in ACS is indicated by all except**

- (a) Vomiting              (b) Bradycardia  
(c) Hypertension        (d) Hypotension

**807. Vomiting in acute myocardial infarction usually occurs**

- (a) Acute inferior wall infarction  
(b) Acute anterior wall infarction  
(c) Cardiac rupture  
(d) Morphine

**808. What is adequate  $\beta$ -blockade in IHD?**

- (a) HR < 50/m          (b) HR 60 – 70/m  
(c) HR 70 – 80/m      (d) HR > 80/m

**809. Antihypertensive of choice is pregnancy**

- (a) Methyldopa          (b)  $\beta$ -blocker  
(c) Ca-blocker          (d) Diuretics

**810. Which antihypertensive is contraindicated in pregnancy?**

- (a) Diuretics              (b) ACE inhibitors  
(c) Ca-blocker          (d)  $\beta$ -blocker

**811. Drug of choice for perioperative hypertensive emergency**

- (a) IV Labetalol        (b) IV Hydralazine  
(c) IV Nitroprusside   (d) IV Nitroglycerine

- 812. Which Ca-antagonist has most marked decreased PVR?**
- (a) Amlodipine (b) Nifedipine  
(c) Verapamil (d) Diltiazem
- 813. Which Ca-blockers should not be combined with Beta-blocker?**
- (a) Amlodipine (b) Nifedipine  
(c) Verapamil (d) Diltiazem
- 814. Which Ca-antagonist does not depresses sinus node function?**
- (a) Amlodipine (b) Nifedipine  
(c) Diltiazem (d) Verapamil
- 815. Which antihypertensive increase bone mass?**
- (a) Ca-blocker (b) Thiazides  
(c)  $\beta$ -blockers (d) Methyldopa
- 816. Which is the maximum antihypertensive dose of ramipril?**
- (a) 2.5 mg/Day (b) 5 mg/Day  
(c) 10 mg/Day (d) 20 mg/Day
- 817. Which life style change may regress LVH in hypertension?**
- (a) Weight reduction (b) Exercise  
(c) Alcohol reduction (d) Smoking cessation
- 818. Diuretic are the drug of choice in ISH in which group?**
- (a) Black > 65 Y (b) Black < 65 Y  
(c) White < 65 Y (d) In all above
- 819. Which drug in chronic stable angina is more effective?**
- (a) Nitrates (b)  $\beta$ -blocker  
(c) Nitrate + BR (d) None of above
- 820. Angina and bradycardia which antianginal is best**
- (a)  $\beta$ -blocker  
(b) Nitrates  
(c) Amlodipine  
(d) Short acting nifedipine

- 821. Patients who exhibits persistantly raised CRP levels after coronary stenting should be given which of the following agent?**
- (a) IV heparin                      (b) IV  $\beta$ -blocks  
(c) Steroids                          (d) Antibiotic
- 822. Which is commonest cause of LV dysfunction (systolic)?**
- (a) IHD                                  (b) CMI  
(c) Valvular HD                      (d) Hypertension
- 823. Drug of choice of coronary artery disesae with aortic stenosis is**
- (a) Nitrates  
(b) Short acting nifedipine  
(c)  $\beta$ -blocker  
(d) Diltiazem
- 824. Which Ca-blocker does not cause bradycardia?**
- (a) Nifedipine                      (b) Diltiazem  
(c) Verapamil                        (d) All of the above
- 825. Palpitation occurs with which Ca-blocker**
- (a) Nifedipine                      (b) Diltiazem  
(c) Verapamil                        (d) All of the above
- 826. All following antihypertensive drugs cause pericarditis except**
- (a) Reserpine                        (b) Procauegimide  
(c) Hypialazenes                      (d)  $\beta$ -blockers
- 827. All are indications for nitrates in acute myocardial infarction except**
- (a) Persistent and recurrent pain  
(b) Sustained hypertension  
(c) Major left ventricular dysfunction  
(d) Right ventricular infarction
- 828. Which Ca-blockers is vasculoselective?**
- (a) Vimodipine                      (b) Nifedipine  
(c) Felodipine                        (d) Flunarizine
- 829. Which antianginal does not dilate coronary artery?**
- (a) Nitrates                              (b)  $\beta$ -blockers  
(c) Nifedipine                        (d) Diltiazem

**830. Which antianginal does not reduce silent ischaemia?**

- (a) Nitrates
- (b) Verapamil
- (c)  $\beta$ -blockers
- (d) Diltiazem

**831. Tolerance develops with which antianginal agent?**

- (a) Verapamil
- (b) Diltiazem
- (c) Nitrates
- (d)  $\beta$ -blockers

**832. Left anterior descending coronary artery stenotic murmur has all following features except**

- (a) Diastolic
- (b) Systolic
- (c) High pitched
- (d) Crescendo decrescendo

**833. Increased CK MB is found in**

- (a) Acute myocarditis
- (b) Chronic myocarditis
- (c) Inflammatory cardiomyopathy
- (d) None of the above

**834. All are common symptoms of acute myocarditis except**

- (a) Reduced physical efficiency
- (b) Palpitation
- (c) Arrhythmia
- (d) Angina

**835. All are non modifiable risk factors for IHD except**

- (a) Age
- (b) Sex
- (c) Family history
- (d) Social class

**836. All are major modifiable risk factors for IHD except**

- (a) Smoking
- (b) Hyperlipidemia
- (c) Hypertension
- (d) DM

**837. How much alcohol consumption is beneficial in IHD?**

- (a) < 10 G of absolute alcohol/day
- (b) 10–20 G of absolute alcohol/day
- (c) 20–30 G of absolute alcohol/day
- (d) > 30 G of absolute alcohol/day

- 838. Which is the least common cardiac complication of hypertension?**
- (a) Valvular heart disease
  - (b) LVH
  - (c) Heart failure
  - (d) Arrhythmias
- 839. Most visible manifestation of hypertensive target organ damage is**
- (a) Coronary artery disease
  - (b) LVH
  - (c) PVD
  - (d) Nephropathy
- 840. ECG diagnosis of LVH in hypertension**
- (a) Less specific
  - (b) Less sensitive
  - (c) More sensitive
  - (d) More specific and less sensitive
- 841. Most common and earliest ventricular dysfunction in hypertension is**
- (a) Diastolic artery
  - (b) Systolic artery
  - (c) Combined
  - (d) All of the above
- 842. Re-do CABG is associated with more complication than primary CABG except**
- (a) Mortality
  - (b) Bleeding
  - (c) Perioperative myocardial infarction
  - (d) Wound complications
- 843. Which of the following has maximum systolic and diastolic pressure?**
- (a) Aorta
  - (b) Left ventricle
  - (c) Pulmonary artery
  - (d) Right ventricle
- 844. Most specific clinical sign of hypercholesterolemia is**
- (a) Corneal arcus
  - (b) Xanthelasma
  - (c) Tendon X anthoma
  - (d) None of above
- 845. Most commonly vascular calcification occurs in which of the following?**
- (a) Aortic arch
  - (b) Coronary artery
  - (c) Pulmonary artery
  - (d) Ascending aorta

**846. Syndrome X is characterised by all except**

- (a) Ischemic pain
- (b) Ischaemic ECG changes
- (c) Normal ceronmes
- (d) Good Responseto sublingual nitrates

**847. All are features of myocardial ischemia except**

- (a) Inadequate perfusion
- (b) No lactate production
- (c) Lactate production
- (d) Impairs contractility function

**848. All are features of myocardial stunning except**

- (a) Develops after ischemia/reperfusion
- (b) Regional blood flow is preserved
- (c) Transient function
- (d) Lactate impaired contractile function production

**849. All are features of myocardial hibernation except**

- (a) Develop after repeated episodes of ischaemia/reperfusion
- (b) Preserved regional blood flow
- (c) Contraction is preserved
- (d) No lactate production

**850. Most common cause of renal failure is**

- (a) Hypertension
- (b) Polycystic kidney
- (c) Glomerulonephritis
- (d) Pyelonephritis

**851. Which is most useful diagnostic test in pulmonary embolism?**

- (a) ECG
- (b) X-ray chest
- (c) ABG analysis
- (d) Lung V/Q scan

**852. All are risk factor for development of HT except**

- (a) Sedentary lifestyle
- (b) Obesity
- (c) Increased salt intake
- (d) Type A personality

- 853. All are logical combination of antihypertensive drugs except**
- (a) Diuretic +  $\beta$ 1-blocker / ACE inhibitor
  - (b)  $\beta$ -blocker + ACE inhibitor
  - (c)  $\beta$ -blocker + Ca-blocker
  - (d) ACE inhibitor + Ca-blocker
- 854.  $\beta$ -blockers should be avoided in all following condition existing with hypertension except**
- (a) Heart failure
  - (b) PVD
  - (c) Heart block
  - (d) Raynaud's phenomenon
- 855. Foam cells are cholesterol laden**
- (a) Macrophage
  - (b) Lymphocytes
  - (c) Fibroblasts
  - (d) Neutrophils
- 856. Foam cells first appear in**
- (a) Aorta
  - (b) Coronary Vs
  - (c) Cerebral Vs
  - (d) Renal Vs
- 857. Which immunosuppressive drug produces hypertension?**
- (a) Azathioprine
  - (b) Methotrexate
  - (c) Cyclosporine
  - (d) Tacrolimus
- 858. Calcified ascending aortic aneurysm with aortic regurgitation is highly suggestive of**
- (a) Atherosclerosis
  - (b) Hypertension
  - (c) Marfan's syndrome
  - (d) Syphilis
- 859. Drug of choice for cyclosporine induced hypertension**
- (a)  $\beta$ -blocker
  - (b) Ca-blocker
  - (c) Thiazide
  - (d) ACE inhibitors
- 860. Most common precipitating factor for angina is**
- (a) Emotion
  - (b) Exertion physical
  - (c) Eating
  - (d) Coldweather
- 861. All are non ischemic cardiac vascular causes of chest pain except**
- (a) Aortic dissection
  - (b) MVP
  - (c) Pericarditis
  - (d) Hypertension

**862. All following may be present in raynaud's phenomena**

- (a) Primary pulmonary hypertension
- (b) Systemic hypertension
- (c) Corpulmonale
- (d) Aortic stenosis

**863. What happens to systolic blood pressure by palpation or auscultation?**

- (a) Systolic blood pressure is higher by auscultation than palpation
- (b) Systolic blood pressure same by both auscultation and palpation
- (c) Systolic blood pressure higher by palpation than auscultation
- (d) All of the above

**864. Where should you place the chest piece of stethoscope while measuring BP normally?**

- (a) Adjacent to lower edge of cuff
- (b) Under the cuff
- (c) Edge of stethoscope should be under the cuff
- (d) 1 cm away from lower edge of cuff

**865. All following procedure made korotkoff sound louder if they are soft except**

- (a) Opening and closing of fist
- (b) Elevate the arm before you inflate the cuff
- (c) Inflate the cuff quickly
- (d) Inflate The cuff slowly

**866. Highest blood pressure recorded with severe aortic stenosis**

- (a) 160/100
- (b) 180/100
- (c) 200/90
- (d) 280/140

**867. In all the following situations korotkoff sounds are difficult to hear except**

- (a) Narrow pulse pressure
- (b) Aortic stenosis
- (c) Poor blood flow to limbs
- (d) Mitral regurgitation

**868. All following endocrinal disorders produce hypertension**

- (a) Hyperparathyroid

- (b) Primary aldosteronism
- (c) Pheochromocytoma
- (d) DM

**869. What is mechanism for renal hypertension?**

- (a) Volume dependent
- (b) Renin angiotensin
- (c) Both (a) and (b)
- (d) None of the above

**870. All following are used for smoking cessation except**

- (a) Clonidine
- (b)  $\alpha$ -methyl dopa
- (c) Vicinal against nicotine
- (d) Rimonabent

**871. Which statin lowers maximal LDL-C reduction?**

- (a) 10 mg/day of atorvastatin
- (b) 20 mg/day of simvastatin
- (c) 20 mg/day of fluvastatin
- (d) 20 mg/day of pravastatin

**872. All are feature volume expanded mechanism of renal hypertension except**

- (a) Edema
- (b) Plasma rennin low
- (c) Plasma angiotensin low
- (d) Dyspnoea

**873. All are features of high rennin angiotensin dependent renal hypertension except**

- (a) Plasma rennin high
- (b) Excessive thirst
- (c) Plasma angiotensin high
- (d) Edema is present

**874. All are causes of transient hypertension except**

- (a) Acute CVA
- (b) Acute myocardial infarction
- (c) Acute glomerulonephritis
- (d) Over infusion of fluids

- 875. Commonest secondary causes of hypertension is**
- (a) Renal
  - (b) Endocrinal
  - (c) Drug induced
  - (d) Coarctation of aorta
- 876. Which antihypertensive agent does not causes sexual dysfunction?**
- (a) ACE inhibitor
  - (b) Reserpine
  - (c) Methyldopa
  - (d) Clonidine
- 877. How frequent is S4 in hypertension (DBP) 100 mm Hg?**
- (a) 10 %
  - (b) 20 %
  - (c) 40 %
  - (d) 50 %
- 878. All are ECG manifestation of atrial infarction except**
- (a) PR segment deviation
  - (b) Atrial flutter
  - (c) Atrial tachycardia
  - (d) Junctional tachycardia
- 879. Angina in elderly usually present as**
- (a) Pain
  - (b) Dyspnoea
  - (c) Fatigue
  - (d) Arrhythmias
- 880. Myocardial infarction in elderly is characterized by all except**
- (a) Pain less
  - (b) Atypical
  - (c) Pulmonary edema
  - (d) Commonly occurs in the morning
- 881. Which antiarrhythmic agent can produce macrocytic anemia?**
- (a) Quinidine
  - (b) Phenyloin
  - (c) Lidocaine
  - (d) Bretyllium
- 882. All are indication for surgical therapy for dissecting aortic aneurysm except**
- (a) Severe aortic regurgitation
  - (b) Heart failure
  - (c) Recurrent ventricular arrhythmia
  - (d) 1° AV block

- 883. Which antihypertensive drug may produce hemolytic anemia?**
- (a) Clonidine
  - (b) Methyldopa
  - (c)  $\beta$ -blocker
  - (d) Ca-blockers
- 884. Which antihypertensive drug produces hypertrichosis?**
- (a) Hydralazine
  - (b) Minoxidil
  - (c) Captopril
  - (d) Prazosin
- 885. All following antihypertensive drugs may produce edema except**
- (a) Ca-antagonists
  - (b) Minoxidil
  - (c) Sodium nitroprusside
  - (d) Hydralazine
- 886. Which antihypertensive agent may produce agranulocytosis?**
- (a) Ca-blocker
  - (b) Reserpine
  - (c)  $\beta$ -blocker
  - (d) Captopril
- 887. Which secondary hypertension may present as Café-AU-Lait spots?**
- (a) Renal artery stenosis
  - (b) Hemochromocytoma
  - (c) Primary aldosteronism
  - (d) Cushing's syndrome
- 888. Incidences of toxemia of pregnancy is lowest in which type of hypertension?**
- (a) Essential hypertension
  - (b) Renal hypertension
  - (c) Endocrinal hypertension
  - (d) Co-arctation of aorta
- 889. Which of the following is most sensitive test for diagnosis of CAD?**
- (a) ECG resting
  - (b) Exercise ECG
  - (c) Spect
  - (d) PET
- 890. Which is most specific test for diagnosis of coronary artery disease?**
- (a) Resting ECG
  - (b) Exercise ECG
  - (c) SPECT
  - (d) PET

- 891. All following therapeutic modalities are found to be useful in end stage coronary disease except?**
- (a) Spinal cord stimulation
  - (b) Trans myocardial laser revascularisation
  - (c) Enhanced external counted pulsation
  - (d) Oxyfedrial
- 892. Common initial presentation of coronary artery disease in females is**
- (a) Sudden cardiac death
  - (b) Unstable angina
  - (c) Silent myocardial infarction
  - (d) Stable angina
- 893. Most common initial presentation of coronary artery disease in males**
- (a) Acute myocardial infarction
  - (b) Silent myocardial infarction
  - (c) Sudden cardiac death
  - (d) Unstable angina
- 894. Best drug for treatment of hypertension in elderly**
- (a) Diuretic
  - (b) Ca-blocker
  - (c) ACE inhibitor
  - (d)  $\beta$ -blocker
- 895. Best drug for treatment as hypertension in elderly diabetic is**
- (a) ACE inhibitor
  - (b) Diuretic
  - (c) Beta-blocker
  - (d) Ca-blockers
- 896. Which antihypertensive decrease insulin resistance?**
- (a) Diuretic
  - (b)  $\beta$ -blocker
  - (c) ACE inhibitor
  - (d) AT II antagonists
- 897. CAD risk is not there with all lipid abnormalities except**
- (a) High HDL
  - (b) Polygenic hypercholestrolemia
  - (c) Lipoprotein lipase defect
  - (d) Familial hypercholestrolemia
- 898. Corticosteroids causes all following lipid changes except**

- (a) Increase total cholesterol
- (b) Increase TG
- (c) Increase LDL-C (d) Decrease HDL-C

**899. Heparin decrease which Lipid?**

- (a) Total cholesterol (b) TG
- (c) LDL-C (d) HDL-C

**900. Cyclosporin increase all following lipids except**

- (a) TC (b) TG
- (c) LDL-C (d) HDL-C

**901. Valporate increase which lipid fraction?**

- (a) LDL-C (b) HDL-C
- (c) Apo A1 (d) Apo B

**902. Estrogen increases all lipid fraction except**

- (a) TG (b) HDL-C
- (c) Apo-A1 (d) LDL-C

**903. Phenytoin increase all lipid fraction except**

- (a) HDL-C (b) Apo A1
- (c) Apo B (d) LDL-C

**904. Phenobarbitone increase all lipid fraction except**

- (a) TG (b) LDL-C
- (c) HDL-C (d) Apo A1

**905. Micro unsaturated fat decrease all lipid fraction except**

- (a) HDL-C (b) TC
- (c) LDL-C (d) LP

**906.  $\beta$ -Agonist increase which lipid fraction?**

- (a) Total cholesterol (b) TG
- (c) LDL-C (d) HDL-C

**907. Which statin decrease LDL-C & TG maximally?**

- (a) Atorvastatin (b) Simvastatin
- (c) Lovastatin (d) Pravastatin

**908. Trans unsaturated fats cause increase in all following lipid fraction except?**

- (a) VLDL (b) HDL-C
- (c) LDL-C (d) LP

- 909. Earliest serum marker to rise in acute myocardial infarction**
- (a) Troponin-T            (b) Troponin-I  
(c) CKMB                (d) Myoglobin
- 910. Ca-blockers block which types of channels?**
- (a) L-Type                (b) T-Type  
(c) N-Type                (d) All the above
- 911. Cystic medial necrosis of aorta occurs in all except**
- (a) Marfan's syndrome  
(b) Hypertension  
(c) Atherosclerosis  
(d) Pregnancy
- 912. Syphilitic aortic aneurysm in valves**
- (a) Ascending aorta  
(b) Thoracic descending aorta  
(c) Abdominal descending aorta  
(d) All the above
- 913. Most common causes of aortic arch aneurysm is**
- (a) Hypertension        (b) Atherosclerosis  
(c) Pregnancy            (d) Marfan's syndrome
- 914. Which is antihypertensive of choice in osteoporosis?**
- (a)  $\beta$ -blocker            (b) Ca-blocker  
(c) Diuretics              (d) ACE inhibitors
- 915. Which antihypertensive drug may produce pericardial effusion?**
- (a) Diuretics              (b) Ca-blocker  
(c) Minoxidil            (d) ARBS
- 916. Hypertension in children is commonly due to**
- (a) Renovascular  
(b) Coarctation of aorta  
(c) Essential  
(d) Primary hyperaldosteronism
- 917. Which is the commonest visceral artery aneurysm?**
- (a) Hepatic  
(b) Splenic

- (c) Superior mesentric
- (d) Celiac

**918. All antihypertensive are lipid neutral except**

- (a) Ca-blocker
- (b)  $\beta$ -blocker
- (c) ACE inhibitor
- (d) ARBS

**919. All antihypertensive are lipid neutral except**

- (a) Ca-blocker
- (b)  $\beta$ -blocker
- (c) ACE inhibitor
- (d) ARBS

**920. Reduction in infarct size is best accomplished by**

- (a) Nitartes
- (b)  $\beta$ -blocker
- (c) ACE inhibitors
- (d) Ca-blockers

**921. Which drug reduces blood viscosity?**

- (a) Aspirin
- (b) Anticoagulant
- (c) Thrombolytics
- (d) Pentoxy phylline

**922. Facial flushing is maximum with**

- (a) Diltiazem
- (b) Verapamil
- (c) Amlodipine
- (d) Nifedipine

**923. Headache is not a features of all following Ca-blockers except**

- (a) Verapamil
- (b) Diltizem sustained release
- (c) Amlodipine
- (d) Nifedipine

**924. All following Ca-blocker do not cause constipation except**

- (a) Amlodipine
- (b) Verapamil
- (c) Felodipine
- (d) Nifedipine

**925. Which Ca-blocker usually does not causes ankle edema?**

- (a) Verapamil
- (b) Amlodipine
- (c) Dilitiazem
- (d) Nifedipine

**926. In which myocardial ischaemic syndrome  $\beta$ -blockers are avoided?**

- (a) SA
- (b) UA
- (c) Acute myocardial infarction
- (d) Prinzmetal's angina

- 927. Allergic reaction occurs with which thrombolytics?**
- (a) SK (b) UK  
(c) rtPA (d) All the above
- 928. Thrombolytics efficacy is maximum with**
- (a) SK (b) rtPA  
(c) UK (d) Alteplase
- 929. Variant angina has all the features except**
- (a) On rest  
(b) ECG shows ST elevation  
(c) Typical ischemic pain  
(d) Angiography reveals significant CAD
- 930. Severe coronary artery disease is normally found in which type of angina**
- (a) Stable (b) Unstable  
(c) Variant (d) All the above
- 931. ST increase in coronary artery disease is found in all except**
- (a) STEMI  
(b) Variant angina  
(c) During stress testing  
(d) SA
- 932. All are indications of anticoagulation in acute myocardial infarction except**
- (a) Post thrombolytics  
(b) Post PTCA  
(c) Atrial fibrillation  
(d) CHB
- 933. Haemostatic breakdown occurs maximally with which thrombolytics**
- (a) Streptokinase (b) tPA  
(c) UK (d) None of above
- 934. Hypotension occurs with which thrombolytics**
- (a) SK (b) t PA  
(c) UK (d) All the above
- 935. Hyperglycemia occurs in all lipid disorder except**
- (a) Familial combined hyperlipidemia  
(b) Familial type V hyperlipoproteinemia

- (c) Type III hyperlipoproteinemia
- (d) APOC II deficiency

**936. Peripheral vascular disease occurs in which type lipid disorder?**

- (a) Familial hyperglycemia
- (b) Familial type V hyperlipoproteinemia
- (c) Apoc II deficiency
- (d) Type III hyperlipoproteinemia

**937. Obesity is a feature of all following lipid disorder except**

- (a) Familial combined hyperlipidemia
- (b) Familial hypertriglyceridemia
- (c) Familial type V hyperlipoproteinemia
- (d) Apoc II deficiency

**938. Tendon xanthelasma occurs in which lipid disorder?**

- (a) Familial hypercholesterolemia
- (b) Familial combined hyperlipidemia
- (c) Polygenic hypercholesterolemia
- (d) All the above

**939. Coronary heart disease is unknown in which lipid disorder?**

- (a) Familial type V hyperlipoproteinemia
- (b) Familial hypercholesterolemia
- (c) Familial combined hyperlipidemia
- (d) Polygenic hypercholesterolemia

**940. All following lipid disorders have TG (order) 500 mg except**

- (a) Type V hyperlipoproteinemia
- (b) LPL deficiency
- (c) Apoc II deficiency
- (d) Familial hypercholesterolemia

**941. Which is the least site of radiation of anginal pain?**

- (a) Medial aspect of left arm
- (b) Left shoulder
- (c) Groin
- (d) Right arm

**942. Papillary muscle rupture following acute myocardial infarction has all following features except**

- (a) Peak incidence 3.5 days after infarction
- (b) More frequent in infero posterior infarction
- (c) Flail or prolapsed leaflet
- (d) Occurs in 5% of all infarct

**943. Which antihypertensive drug does not cause pericarditis?**

- (a) Captopril
- (b) Minioxidil
- (c) Hydralazine
- (d) Ca-blockers

**944. Which disease of aorta dose not cause myocardial infarction?**

- (a) Aortic dissection
- (b) Marfans syndrome
- (c) Aortic stenosis
- (d) Aortic regurgitation

**945. All following are normal plasma renin hypertension except**

- (a) Essential hypertension
- (b) coarctation of aorta
- (c) Pheochromocytoma
- (d) Liddle's syndrome

**946. In following situations the arbitrary blood pressure monitoring is helpful except**

- (a) Assessing 24 hours control
- (b) Nocturnal dip status
- (c) White coat hypertension
- (d) During treatment of hypertensive emergency

**947. All following metals are implicated in Hypertension except**

- (a) Lead
- (b) Arsenic
- (c) Carbon disulfide
- (d) Copper

**948. Combined systolic and diastolic hypertension has all the features except**

- (a) Age of Onset 30–50 years
- (b) Multifactorial
- (c) Renin angiotension blockers
- (d) More effectic CAD is less common

**949. Isolated systolic hypertension has all following features except**

- (a) Age > 55 years
- (b) Stroke is more common
- (c) Diuretics are effective
- (d) Progression is slow

**950. All following features occurs in aortic dissection except**

- (a) Hypertension occurs in < 50%
- (b) Type-A requiring surgery
- (c) Type-B usually treated medically
- (d) Mechanism of dissection involve both high pulsatile wave strets and accelerated atherosclerosis

**951. Conduction defect is more with**

- (a) Verapamil
- (b) Diltiazem
- (c) Nifedipine
- (d) None of the above

**952. Most common cause of age related pulmonary stenosis is**

- (a) Rheumatic
- (b) Connective tissue disease
- (c) Sclerodema
- (d) Carcinoid

**953. Tendon xanthelasma occurs in which lipid disorder?**

- (a) Familial hypercholestrolemia
- (b) Familial combined hyperlipidemia
- (c) Polygenic hypercholestrolemia
- (d) All the above

**954. Coronary heart disease is unknown in which lipid disorder?**

- (a) Familial type-V hyperlipoproteinemia
- (b) Familial hypercholestrolemia
- (c) Familial combined hyperlipidemia
- (d) Polygenic hypercholestrolemia

**955. All following lipid disorders have TG (order) 500 mg except**

- (a) Type-V hyperlipoproteinemia
- (b) LPL deficiency
- (c) Apoc II deficiency
- (d) Familial hypercholestrolemia

- 956. Which is the least site of radiation of anginal pain?**
- (a) Medial aspect of left arm
  - (b) Left shoulder
  - (c) Groin
  - (d) Right arm
- 957. Papillary muscle rupture following acute myocardial infarction has all following features except**
- (a) Peak incidence 3.5 days after infarction
  - (b) More frequent in infero posterior infarction
  - (c) Flail or prolapsed leaflet
  - (d) Occurs in 5% of all infarct
- 958. Nitrates are contraindicated in which infarction?**
- (a) Anterior infarction
  - (b) Inferior infarction
  - (c) RV infarction
  - (d) Atrial infarction
- 959. ST increase occurs in Prinzmetal angina**
- (a) Before pain
  - (b) During pain
  - (c) After pain
  - (d) All the above
- 960. Patients of coronary artery disease with mitral regurgitation the drug of choice is**
- (a) Slow release DHP
  - (b) Nitrates
  - (c)  $\beta$ -blockers
  - (d) All the above
- 961. Drug of choice patients of coronary artery disease with mitral stenosis**
- (a)  $\beta$ -blockers
  - (b) Amlodipine
  - (c) Nitrates
  - (d) None of the above
- 962. Smoking causes loss of cardioprotective effect of which  $\beta$ -blocker?**
- (a) Atenolol
  - (b) Propranolol
  - (c) Metoprolol
  - (d) All the above
- 963. Which cation is increased by  $\beta$ -blockers?**
- (a) Na
  - (b) K
  - (c) Ca
  - (d) Mg

**964. In elderly patients of angina which is better?**

- (a)  $\beta$ -blockers
- (b) Nitrates
- (c) Verapamil
- (d) All of the above

**965. Anticoagulation in coronary artery disease is done in all following except**

- (a) Associated AF
- (b) Associated LV dysfunction
- (c) Ventricular aneurysm
- (d) Chronic stable angina

**966. Which is the rare SVT in acute myocardial infarction?**

- (a) Atrial fibrillation
- (b) Atrial flutter
- (c) Ectopic atrial tachycardia
- (d) AV nodal re-entrant tachycardia

**967. Which antianginal agent prevents sudden cardiac death in CAD?**

- (a)  $\beta$ -blocker
- (b) Verapamil
- (c) Diltiazem
- (d) Nitrates

**968. Rupture of thoracic aortic aneurysm is most common at which aortic site?**

- (a) 3.5 cm
- (b) 4.5 cm
- (c) 5.5 cm
- (d) > 6 cm

**969. To which drug in angina with normal coronaries respond?**

- (a) Nitrates
- (b)  $\beta$ -blockers
- (c) Ca-blockers
- (d) None of the above

**970. All are contraindications of IABP in acute MI except**

- (a) Severe peripheral vascular disease
- (b) Aortic aneurysm
- (c) Contraindication to anticoagulation
- (d) Sinus bradycardia

**971. All following are indications of IABP in acute MI except**

- (a) Cardiogenic shock
- (b) Post infarct angina
- (c) Early mechanical complication of acute MI
- (d) Uncomplicated RV infarction

- 972. All are early mechanical complication of MI except**
- (a) Free wall rupture
  - (b) IVS rupture
  - (c) Aneurysm formation
  - (d) Mitral regurgitation
- 973. Which of the following agent increases preload and after load in myocardial infarction?**
- (a) Dopamine
  - (b) Dobutamine
  - (c) Nitroglycerine
  - (d) ACE inhibitors
- 974. Which of the following statement is coronary in ageing heart?**
- (a) Large arteries dilate
  - (b) Intima thickness
  - (c) Collagen decrease
  - (d) SA pacemaker cells decrease
- 975. Highest mortality in 1<sup>st</sup> year of acute myocardial infarction is in**
- (a) MI with EF < 30%
  - (b) Previous infarct
  - (c) Post infarct angina
  - (d) Acute MI in young
- 976. Highest mortality in 2<sup>nd</sup> years of acute MI is in**
- (a) MI with EF < 30%
  - (b) Previous infarct
  - (c) Anterior MI
  - (d) Inferior MI
- 977. ST increase in lead avR occurs in all the following except**
- (a) LMCA lesion
  - (b) Cx lesion
  - (c) Right ventricular overload
  - (d) LAD lesion
- 978. Highest mortality in acute MI in hospital is in which situation?**
- (a) Cardiogenic shock
  - (b) MI in prior MI
  - (c) Large acute infarct
  - (d) MI with EF < 30%

**ANSWERS**

1. (c)    2. (a)    3. (b)    4. (d)    5. (c)  
6. (a)    7. (c)    8. (a)    9. (a)    10. (d)  
11. (c)    12. (a)    13. (a)    14. (b)    15. (d)  
16. (d)    17. (c)    18. (d)    19. (c)    20. (c)  
21. (b)    22. (a)    23. (c)    24. (c)    25. (a)  
26. (a)    27. (d)    28. (d)    29. (a)    30. (d)  
31. (d)    32. (d)    33. (d)    34. (d)    35. (b)  
36. (d)    37. (c)    38. (d)    39. (d)    40. (d)  
41. (d)    42. (b)    43. (b)    44. (d)    45. (d)  
46. (d)    47. (d)    48. (d)    49. (b)    50. (c)  
51. (c)    52. (c)    53. (d)    54. (c)    55. (d)  
56. (d)    57. (a)    58. (c)    59. (d)    60. (d)  
61. (c)    62. (d)    63. (d)    64. (d)    65. (c)  
66. (d)    67. (d)    68. (d)    69. (d)    70. (b)  
71. (a)    72. (b)    73. (b)    74. (b)    75. (b)  
76. (d)    77. (d)    78. (d)    79. (b)    80. (b)  
81. (d)    82. (d)    83. (d)    84. (d)    85. (a)  
86. (d)    87. (d)    88. (a)    89. (a)    90. (d)  
91. (a)    92. (a)    93. (a)    94. (a)    95. (d)  
96. (d)    97. (d)    98. (c)    99. (c)    100. (c)  
101. (b)    102. (c)    103. (d)    104. (b)    105. (d)  
106. (d)    107. (d)    108. (b)    109. (a)    110. (c)  
111. (d)    112. (d)    113. (d)    114. (a)    115. (a)  
116. (a)    117. (a)    118. (d)    119. (d)    120. (d)  
121. (d)    122. (c)    123. (b)    124. (b)    125. (d)  
126. (c)    127. (d)    128. (d)    129. (g)    130. (c)  
131. (c)    132. (c)    133. (a)    134. (c)    135. (b)  
136. (b)    137. (a)    138. (b)    139. (d)    140. (a)  
141. (d)    142. (c)    143. (d)    144. (c)    145. (b)  
146. (b)    147. (c)    148. (b)    149. (a)    150. (e)  
151. (e)    152. (a)    153. (b)    154. (c)    155. (b)  
156. (b)    157. (c)    158. (d)    159. (a)    160. (d)

161. (c) 162. (d) 163. (c) 164. (a) 165. (d)  
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211. (a) 212. (d) 213. (a) 214. (b) 215. (d)  
216. (d) 217. (d) 218. (d) 219. (c) 220. (a)  
221. (a) 222. (a) 223. (b) 224. (b) 225. (b)  
226. (d) 227. (b) 228. (a) 229. (c) 230. (d)  
231. (c) 232. (c) 233. (a) 234. (d) 235. (a)  
236. (a) 237. (a) 238. (a) 239. (d) 240. (d)  
241. (a) 242. (c) 243. (a) 244. (a) 245. (d)  
246. (b) 247. (c) 248. (d) 249. (d) 250. (d)  
251. (c) 252. (d) 253. (d) 254. (d) 255. (c)  
256. (c) 257. (d) 258. (a) 259. (d) 260. (d)  
261. (b) 262. (d) 263. (d) 264. (a) 265. (d)  
266. (a) 267. (b) 268. (b) 269. (a) 270. (a)  
271. (a) 272. (d) 273. (d) 274. (a) 275. (d)  
276. (b) 277. (b) 278. (a) 279. (d) 280. (d)  
281. (d) 282. (d) 283. (a) 284. (d) 285. (d)  
286. (b) 287. (c) 288. (d) 289. (c) 290. (d)  
291. (d) 292. (a) 293. (d) 294. (d) 295. (c)  
296. (a) 297. (d) 298. (d) 299. (d) 300. (c)  
301. (b) 302. (c) 303. (a) 304. (b) 305. (a)  
306. (a) 307. (c) 308. (d) 309. (d) 310. (d)  
311. (a) 312. (b) 313. (a) 314. (a) 315. (a)  
316. (d) 317. (d) 318. (d) 319. (d) 320. (a)  
321. (d) 322. (a) 323. (d) 324. (d) 325. (d)  
326. (d) 327. (d) 328. (b) 329. (d) 330. (b)  
331. (b) 332. (d) 333. (d) 334. (d) 335. (d)

336. (d) 337. (b) 338. (c) 339. (b) 340. (c)  
341. (d) 342. (c) 343. (c) 344. (b) 345. (a)  
346. (c) 347. (a) 348. (a) 349. (a) 350. (c)  
351. (d) 352. (d) 353. (c) 354. (c) 355. (b)  
356. (d) 357. (d) 358. (d) 359. (b) 360. (b)  
361. (b) 362. (d) 363. (b) 364. (a) 365. (d)  
366. (b) 367. (d) 368. (a) 369. (d) 370. (c)  
371. (b) 372. (d) 373. (a) 374. (c) 375. (a)  
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## **SECTION-5**

# **VALVULAR HEART DISEASE, INFECTIVE ENDOCARDITIS CONGENITAL HEART DISEASE AND PERICARDIAL DISEASE**

- 1. Commonest type of congenital heart disease seen in adults**
  - (a) Atrial septal defect
  - (b) Ventricular septal defect
  - (c) Tetralogy of fallot
  - (d) Patent ductus arteriosus
  - (e) Bicuspid aortic valve
- 2. In atrial septal defect the aorta is**
  - (a) Small
  - (b) Normal
  - (c) Enlarged
  - (d) Aneurysmal
- 3. The following is true of tetralogy of fallot except**
  - (a) Squatting
  - (b) Clubbing
  - (c) Cyanosis
  - (d) Increased lung vascularity
- 4. Hilar dance is seen in**
  - (a) Ventricular septal defect
  - (b) Atrial septal defect
  - (c) Patent ductus arteriosus
  - (d) Transposition of great vessels
- 5. Rheumatic disease commonly involves which of the following?**
  - (a) Aortic and tricuspid
  - (b) Aortic and pulmonary
  - (c) Mitral and tricuspid
  - (d) Mitral and aortic

- 6. Which of the following statement regarding rheumatic nodules is false?**
- (a) Found over extensor surface
  - (b) Tender on palpation
  - (c) Associated with severe carditis
  - (d) Pea size nodules
- 7. Sudden death is common in**
- (a) Mitral stenosis
  - (b) Ventricular septal defect
  - (c) Aortic stenosis
  - (d) Patent ductus arteriosus
- 8. Hemoptysis is commonly seen in**
- (a) Aortic stenosis
  - (b) Pulmonary stenosis
  - (c) Mitral stenosis
  - (d) Tricuspid stenosis
- 9. The area of mitral valve orifice in mitral stenosis not compatible with life is**
- (a)  $< 0.5 \text{ cm}^2$
  - (b)  $1.0 \text{ cm}^2$
  - (c)  $1.5 \text{ cm}^2$
  - (d)  $3.0 \text{ cm}^2$
- 10. ST Segment elevation in pericarditis occurs in all leads except**
- (a) V2,6
  - (b) Lead III
  - (c) aVF
  - (d) aVR
- 11. In rheumatic heart disease most common cause of embolism is**
- (a) Tight mitral stenosis with atrial fibrillation
  - (b) Aortic stenosis
  - (c) Tricuspid regurgitation
  - (d) Atrial septal defect
- 12. All the following are seen in tricuspid atresia except**
- (a) Right axis deviation
  - (b) Left axis deviation
  - (c) Left atrial hypertrophy
  - (d) Cyanosis
- 13. Patent foramen ovale in adult is found**
- (a) None of the adults
  - (b) 10% of adults
  - (c) 1/3 of adults
  - (d) 1/2 of adults

- 14. Mitral valve prolapse has all the following features except**
- (a) Thickened and redundant leaflets
  - (b) Annular dilatation
  - (c) Short & thick chordae tendineae
  - (d) Posterior leaflet prolapse more common than anterior
- 15. The phrase 'A disease that licks in joints but bites the heart' is used for**
- (a) Acute infective endocarditis
  - (b) Acute rheumatic fever
  - (c) Rheumatoid arthritis
  - (d) None of the above
- 16. The term angina means**
- (a) Chest pain
  - (b) Burning in chest
  - (c) Strangling
  - (d) None of the above
- 17. Most common cause of chronic mitral regurgitation in our country is**
- (a) Rheumatic
  - (b) Dilated cardiomyopathy
  - (c) Restrictive cardiomyopathy
  - (d) Ischemia
- 18. Secondary mitral regurgitation is characterized by all except**
- (a) Enlarged left ventricular
  - (b) Reduced cardiac output
  - (c) Pulmonary venous hypertension
  - (d) Regurgitant fraction is usually  $> 0.4$
- 19. Mitral facies in mitral stenosis is characterized by all except**
- (a) High cardiac output
  - (b) Low cardiac output
  - (c) Systolic vasoconstriction
  - (d) Severe mitral stenosis
- 20. All of the following statements regarding atrial fibrillation in mitral stenosis are correct except**
- (a) Its development is related to left atrial size
  - (b) It is present in 40% of cases
  - (c) Its development is related to age
  - (d) Its development is related to severity of mitral stenosis

- 21. Symptoms in mitral stenosis appears at which valve area?**
- (a)  $3.5 \text{ cm}^2$                       (b)  $3 \text{ cm}^2$   
(c)  $2.5 \text{ cm}^2$                       (d)  $< 2.5 \text{ cm}^2$
- 22. Non critical mitral stenosis may result in acute pulmonary edema in following conditions except**
- (a) Atrial fibrillation with fast ventricular rate  
(b) Pregnancy  
(c) Surgery  
(d) Thromboembolism
- 23. Reactive pulmonary hypertension in mitral stenosis occurs because of all of the following except**
- (a) Atrial fibrillation  
(b) Increased pulmonary capillary pressure  
(c) Hypoxia  
(d) Alveolar fibrosis
- 24. Prime symptom in mitral stenosis occurs because of**
- (a) Pulmonary arterial hypertension  
(b) Pulmonary venous hypertension  
(c) Right ventricular failure  
(d) Arrhythmia
- 25. Mitral stenosis is caused by all except**
- (a) Rheumatic myocarditis  
(b) Infective endocarditis  
(c) Viral myocarditis  
(d) Congenital
- 26. Normal mitral valve shape is**
- (a) Tubular                      (b) Ellipsoid  
(c) Funnel                      (d) Oval
- 27. Which of the following statement is correct regarding cor triatriatum?**
- (a) Presence of systolic murmur  
(b) Presence of diastolic murmur  
(c) Presence of opening Snap  
(d) Common in adults

- 28. Congenital mitral stenosis is associated with all except**
- (a) Mitral regurgitation
  - (b) Patent ductus arteriosus
  - (c) Coarctation of aorta
  - (d) None of the above
- 29. Which of the following is usually absent in the mitral stenosis?**
- (a) Opening snap
  - (b) Middiastolic murmur
  - (c) S3
  - (d) Right ventricular enlargement
- 30. Which of the following feature is uncommon in acquired aortic stenosis?**
- (a) Murmur is best heard in right 2<sup>nd</sup> intercostal space
  - (b) Aortic ejection sound is common
  - (c) A2 decreased or absent
  - (d) Aortic regurgitant murmur
- 31. Which valve is not involved in CREST syndrome?**
- (a) Mitral
  - (b) Aortic
  - (c) Pulmonary
  - (d) Tricuspid
- 32. Most common cardiac abnormality in klippel feil syndrome is**
- (a) Fallot's tetralogy
  - (b) Patent ductus arteriosus
  - (c) Atrial septal defect (ostium secundum)
  - (d) Ventricular septal defect
- 33. Teratogenic congenital heart disease are not related to**
- (a) Alcohol
  - (b) Lithium
  - (c) Phenytoin
  - (d) Erythromycin
- 34. Most common congenital heart disease as ellis vencreveld syndromes**
- (a) Singh atrium/large aortic stenosis defect
  - (b) Ventricular septal defect
  - (c) Singh ventricle
  - (d) Auto pulmonary window

- 35. Acute mitral regurgitation is characterized by all except**
- (a) Abrupt onset of symptoms
  - (b) S4 gallop
  - (c) Apical systolic murmur
  - (d) Cardiac enlargement
- 36. Most common ECG abnormality in mitral valve prolapse is**
- (a) T-wave inversion in inferior leads
  - (b) T-wave inversion in lateral leads
  - (c) QT prolongation
  - (d) None of the above
- 37. Bacterial endocarditis most commonly occurs in**
- (a) Mitral stenosis
  - (b) Mitral regurgitation
  - (c) Aortic regurgitation
  - (d) Aortic stenosis
- 38. Most uncommon symptom in chronic severe mitral regurgitation is**
- (a) Fatigue
  - (b) Angina
  - (c) Dyspnea
  - (d) None of the above
- 39. Which NSAID is the drug of choice in acute viral pericarditis?**
- (a) Aspirin
  - (b) Indomethacin
  - (c) Ibuprofen
  - (d) Naproxen
- 40. Least commonly encountered physical sign in pulmonary arterial hypertension is**
- (a) Loud P2
  - (b) Tricuspid regurgitation
  - (c) Right sided S4
  - (d) Graham steel murmur
- 41. Which atrial arrhythmia is most common in heart failure?**
- (a) Atrial tachycardia
  - (b) AVN reentrant tachycardia
  - (c) Atrial flutter
  - (d) Atrial fibrillation
- 42. Which component of pericardial fluid acts as a lubricant?**

- (a) Prostaglandins      (b) Phospholipids  
(c) Proteins              (d) None of the above
- 43. Most common cause of acute pericarditis is**  
(a) Bacterial  
(b) Post myocardial infarction  
(c) Viral  
(d) Uremic
- 44. Parietal pericardium entirely cover all the following structures except**  
(a) Right ventricle      (b) Left ventricle  
(c) Right atrium        (d) Left atrium
- 45. Normal volume of pericardial fluid is**  
(a) 100 ml                (b) Up to 50 ml  
(c) Up to 150 ml        (d) More than 150 ml
- 46. Most common cause of tricuspid stenosis is**  
(a) SLE  
(b) Carcinoid syndromes  
(c) Rheumatic  
(d) Infective endocarditis
- 47. Which is not found in ECG of tricuspid stenosis?**  
(a) Right ventricular hypertrophy  
(b) Atrial fibrillation  
(c) P pulmonale  
(d) RA enlargement
- 48. Tricuspid valve area in severe tricuspid stenosis is**  
(a)  $< 1 \text{ cm}^2$               (b)  $1.2 \text{ cm}^2$   
(c)  $1.5 \text{ cm}^2$               (d) None of the above
- 49. Which valvular lesion is most common?**  
(a) Mitral stenosis  
(b) Tricuspid regurgitation  
(c) Mitral regurgitation  
(d) None of the above
- 50. Most common organism causing infective endocarditis is**  
(a) Streptococcus      (b) Staphylococcus  
(c) Gram negative bacilli  
(d) Fungal infection

- 51. Most common organism causing native valve endocarditis is**
- (a) Streptococci
  - (b) Fungal infection
  - (c) Staphylococcus
  - (d) Gram negative bacilli
- 52. Prolongation of PR interval in infective endocarditis indicates all except**
- (a) Ring abscess
  - (b) Generalized myocarditis
  - (c) Focal myocarditis
  - (d) Extension of infection
- 53. Most important complication of infective endocarditis is**
- (a) Arrhythmias
  - (b) Heart failure
  - (c) Embolization
  - (d) Mycotic aneurysm
- 54. Syncope at rest in aortic stenosis is due to**
- (a) Bradycardia
  - (b) Ventricular arrhythmias
  - (c) Hypotension
  - (d) Complete heart block
- 55. Acute severe aortic regurgitation is caused by all except**
- (a) Infective endocarditis
  - (b) Rheumatic carditis
  - (c) Chest trauma
  - (d) Aortic dissection
- 56. Holt-oram syndrome has all the features except**
- (a) Ostium primum ASD
  - (b) VSD
  - (c) Upper limb dysplasias
  - (d) AVN conduction defect
- 57. All drugs are associated with hypersensitive myocarditis except**
- (a) Methyldopa
  - (b) Streptomycin
  - (c) Tetracycline
  - (d) Chloromycetin
- 58. All drugs causes toxic myocarditis except**
- (a) Emetine
  - (b) Lithium
  - (c) Theophylline
  - (d) Procanamide

- 59. Earliest ECG change in mitral stenosis is**
- (a) Right axis deviation
  - (b) Left atrial enlargement
  - (c)  $R/S > 1$  in  $V_1$
  - (d) Right atrial enlargement
- 60. Constrictive pericarditis has all features except**
- (a) Pulsus paradoxus
  - (b) Kussmaul's sign
  - (c) S3
  - (d) Murmurs
- 61. Culture negative infective endocarditis occurs in**
- (a) 20%
  - (b) 25%
  - (c) < 5%
  - (d) 5.10%
- 62. Which of the following is a feature of active endocarditis?**
- (a) Increase ESR
  - (b) Leukocytosis
  - (c) Proteinuria
  - (d) Increased polyclonal immunoglobulin
- 63. Which of the following condition has highest maternal mortality during pregnancy?**
- (a) VSD left to right shunt
  - (b) Pulmonary stenosis
  - (c) Pulmonary hypertension
  - (d) ASD left to right shunt
- 64. Aortic stenosis patients are fit for pregnancy with all the following factors except**
- (a) Moderate aortic stenosis
  - (b) Negative exercise test
  - (c) Left ventricle dysfunction
  - (d) Normal ECG
- 65. Higher INR (3-5-4) is recommended for which prosthetic valve?**
- (a) Bileaflet
  - (b) Tilting discs
  - (c) Caged ball
  - (d) All of the above
- 66. Long term anticoagulation is done in all patients with bioprosthetic valve except**
- (a) With atrial fibrillation
  - (b) With atrial thrombus on echo cardiography
  - (c) Previous history of embolism
  - (d) None of the above

- 67. Optimum duration of antibiotic therapy in majority of patients with infective endocarditis is**
- (a) 2 weeks                      (b) 10 days  
(c) 4 weeks                      (d) 6 weeks
- 68. Strong indication for surgical intervention in infective endocarditis includes all except**
- (a) Resistant heart failure  
(b) Endocarditis caused by filamentous fungi  
(c) Occlusion of valve by large vegetation  
(d) Late onset prosthetic valve endocarditis
- 69. Average over all survival in severe aortic stenosis is**
- (a) < 2 years                      (b) 5 years  
(c) 2 years                      (d) 3 years
- 70. Chronic severe aortic regurgitation is characterized by all except**
- (a) Increased systolic blood pressure  
(b) Increased peripheral vascular resistance  
(c) Increase pulse pressure  
(d) Increase ejection fraction
- 71. Acute severe aortic regurgitation is characterized by all except**
- (a) Increase ejection fraction  
(b) Increase heart rate  
(c) Increase peripheral vascular resistance  
(d) Increase left ventricle end diastolic pressure
- 72. Classic and characteristic electrocardiography finding in congenitally corrected transposition of great vessels is**
- (a) Advanced AV block  
(b) I degree AV block  
(c) Voltages of precordial leads reflect hemodynamic situation  
(d) Loss of normal Q wave in  $V_6$
- 73. Congenital mitral stenosis has all of the features except**
- (a) Loud  $S_1$  ( $M_1$ )  
(b) Middiastolic murmur

- (c) Presystolic murmur
  - (d) Pulmonary hypertension
- 74. Commonest cause of aortic regurgitation is**
- (a) Rheumatic
  - (b) Aortic root dilatation
  - (c) Bicuspid aortic valve
  - (d) Infective endocarditis
- 75. All following abnormalities of pulse are found in aortic regurgitation except**
- (a) Corrigan's pulse
  - (b) Water hammer pulse
  - (c) Bisferiens
  - (d) Pulses alternans
- 76. Linear calcification in ascending aorta is characteristic of which etiological type of aortic regurgitation?**
- (a) Bicuspid aortic valve
  - (b) Syphilis
  - (c) Rheumatic
  - (d) Degenerative disease
- 77. Which is least common complication of atrial regurgitation?**
- (a) LVF
  - (b) Atrial arrhythmias
  - (c) Infective endocarditis
  - (d) Ventricular arrhythmias
- 78. Which of the following complication of mitral stenosis is not related to its severity?**
- (a) Infective endocarditis
  - (b) Thromboembolism
  - (c) Atrial fibrillation
  - (d) All of the above
- 79. Which of the following is potential intracardiac shunt?**
- (a) Patent foramen ovale
  - (b) Atrial septal defect
  - (c) Ventricular septal defect
  - (d) None of the above

- 80. Neonatal marfan syndromes has all the following cardiac lesion except**
- (a) Mitral regurgitation
  - (b) TR
  - (c) PR
  - (d) Dilatation of aorta/AR
- 81. Aortic regurgitation in hypertension is found in**
- (a) Isolated systolic hypertension
  - (b) Combined systolic and diastolic hypertension
  - (c) Severe diastolic hypertension
  - (d) None of the above
- 82. All the following cardiac disorders are associated with pericarditis except**
- (a) Acute myocardial infarction
  - (b) Post myocardial infarction syndromes
  - (c) Atrial septal defects
  - (d) Aortic regurgitation
- 83. Which metabolic disorder does not produce pericarditis?**
- (a) Uremia
  - (b) Ketoacidosis (diabetic)
  - (c) Cholesterol
  - (d) Gout
- 84. Which component of pericardial rub is usually loudest?**
- (a) Ventricular systole component
  - (b) Atrial component
  - (c) Early diastolic
  - (d) All component
- 85. Pericardial rub is loudest at**
- (a) Apex of heart
  - (b) Pulmonary area
  - (c) Aortic area
  - (d) Left mid to lower sternal border
- 86. All following leads show ST depression in acute pericarditis except**
- (a) aVR
  - (b) V<sub>4</sub> R
  - (c) V<sub>1</sub>
  - (d) L<sub>1</sub>
- 87. Most common virus causing human myocarditis is**

- (a) Coxsackie virus A (b) Coxsackie virus B  
(c) Echo virus (d) Viral hepatitis
- 88. Which of the following lesion is not associated with infective endocarditis?**
- (a) Ostium secundum ASD  
(b) Ostium primum ASD  
(c) VSD  
(d) PDA
- 89. Right ventricle is enlarged in all the following except**
- (a) Pulmonary stenosis  
(b) Tricuspid atresia  
(c) Complete TGA  
(d) Eisenmenger syndromes
- 90. Pulmonary conus is concave in all the following except**
- (a) Complete TGA (b) TOF  
(c) Ebsteins anomaly (d) Common atrium
- 91. Abnormal LAD of 'P' wave is found in**
- (a) OP ASD (b) OS ASD  
(c) SV ASD (d) PFD
- 92. Which arrhythmia particularly occurs in operated VSD patients?**
- (a) LBBB  
(b) LAFB  
(c) RBBB  
(d) Left post hemiblock
- 93. All the following have no or low risk of infective endocarditis except**
- (a) Ostium secundum ASD  
(b) MVP without mitral regurgitation  
(c) Pulmonary stenosis  
(d) Bicuspid aortic valve
- 94. Commonest neurological complication of infective endocarditis is**
- (a) Ischamic cerebral infarct  
(b) Brain abscess  
(c) Intracranial haemorrhage  
(d) Meningoencephalitis

- 95. Anatomic closure of ductus arteriosus is caused by**
- (a) Shortening of ductal wall
  - (b) Thickening of ductal wall
  - (c) Both (a) and (b)
  - (d) None of the above
- 96. Which is the commonest associated condition with coarctation of aorta?**
- (a) PDA
  - (b) Common ventricle
  - (c) ASD
  - (d) Hypoplastic left heart syndromes
- 97. What is abnormal pericardial thickness?**
- (a) 1 mm
  - (b) 1.2 mm
  - (c) 2.4 mm
  - (d) > 4 mm
- 98. Murmur of tricuspid stenosis is characterized by all the features except**
- (a) Usually heard in xiphoid area
  - (b) It is diamond shaped
  - (c) Increases during inspiration
  - (d) Large 'V' waves in Jugular venous pulse
- 99. Predominant congenital cardiac disease for arrhythmic SCD are all except**
- (a) PS
  - (b) TOF
  - (c) TGA
  - (d) AS
- 100. Which congenital cardiac malformation is consistently associated with pre-excitation (WPW)?**
- (a) Endocardial cushion defect
  - (b) Ebsteins anomaly
  - (c) Arrhythmogenic right ventricular cardiomyopathy
  - (d) Complete transposition of great vessels
- 101. All are characteristic features of ECG in Ebsteins anomaly except**
- (a) Tall 'P' wave
  - (b) Short PR interval
  - (c) RBBB
  - (d) Deep Q in inferior and V1-V3

**102. VSD is essential element of all except**

- (a) TOF
- (b) Persistent truncus arteriosus
- (c) A-V canal defect
- (d) TAPVC

**103. Beck's triad in acute cardiac tamponade include all except**

- (a) Rising venous pressure
- (b) Falling arterial pressure
- (c) Small quiet heart
- (d) Tachycardia

**104. ASD with significant pulmonary hypertension is characterized by all except**

- (a) Narrow split S2 which widens on inspiration
- (b) Graham steell murmur
- (c) Prominent 'a' wave in neck
- (d) The murmur of relative TS present

**105. Which of the following ECG finding is most common in Ebsteins disease?**

- (a) Increase PR
- (b) RAD
- (c) Multiphasic QRS complex
- (d) Low voltage QRS

**106. Aortic stenosis is featured by all the following except**

- (a) Occurs after age 65 years
- (b) High prevalence in patients with hypertension and LVH
- (c) Increased risk of cardiovascular events
- (d) May lead to significant grater increase

**107. Aortic dissection is common during all the following except**

- (a) Pregnancy
- (b) Coartation of aorta
- (c) Aortic stenosis
- (d) Exercise

**108. Young patients of aortic stenosis having atrial fibrillation usually suggest**

- (a) Associated hypertension
- (b) Associated coronary artery disease
- (c) Associated MV disease
- (d) Associated thyroioxicesis

- 109. Which hemodynamic component decreases during exercise in severe mitral stenosis?**
- (a) Pulmonary vein pressure
  - (b) Left atrial pressure
  - (c) Pulmonary artery pressure
  - (d) Cardiac output
- 110. Chorea in rheumatic fever has all of the features except**
- (a) Late manifestation
  - (b) Self limited
  - (c) Associated with increased ESR
  - (d) Chronic rheumatic heart disease may occur
- 111. Pericardiocentesis is usually done in all except**
- (a) Pericardial effusion suspected
  - (b) Cardiac tamponade
  - (c) Purulent effusion
  - (d) Small effusion which are hemodynamically insignificant
- 112. Which of the following is test of choice for diagnosis of pericardial effusion?**
- (a) X-ray chest
  - (b) Echocardiography
  - (c) CT
  - (d) MRI
- 113. All the ECG finding are suggestive of cardiac tamponade except**
- (a) Low voltage complexes
  - (b) Electrical alternans
  - (c) Both (a) and (b)
  - (d) Right axis deviation
- 114. Peripheral pulmonary artery stenosis is commonly associated with**
- (a) Patent ductus arteriosus
  - (b) ASD
  - (c) Single atrium
  - (d) VSD
- 115. Tetralogy of fallot has all the following features except**
- (a) Cyanotic spells
  - (b) Squatting
  - (c) Prominent 'a' wave
  - (d) Aortic ejection click

**116. Common cause of rupture of sinus of valsalva**

- (a) Spontaneous
- (b) Hypertension
- (c) Exercise
- (d) Emotion

**117. Which side most commonly ruptures in sinus of valsalva ruptures?**

- (a) Right
- (b) Left
- (c) None coronary
- (d) All of the above

**118. In which chamber sinus of valsalva rupture most commonly?**

- (a) RA
- (b) LA
- (c) RV
- (d) LV

**119. Fallots trilogy has all the features except**

- (a) Heart failure
- (b) Cardiomegaly
- (c) S4 Gallop
- (d) Pulmonary bay on X-ray

**120. Which of the following are the acronyms for percutaneous Transmyocardial revascularization?**

- (a) PTMR
- (b) PMR
- (c) DMR
- (d) PMLR
- (e) TMR
- (f) None of these
- (g) All of these

**121. Micromitral operation means**

- (a) Operation in small mitral valve
- (b) It denotes small atrial incision and cardiac instrument manipulation using video guidance
- (c) Mitral valve surgery under microscope
- (d) All the above

**122. The world's first video assisted mitral valve operation was done by**

- (a) Calafiore
- (b) Subramanian
- (c) Carepentier
- (d) All the above

**123. The first video assisted mitral valve operation done on**

- (a) Arrested heart
- (b) Fibrillating heart
- (c) Beating heart
- (d) All the above

- 124. World's first robotic assisted mitral valve operation was performed on**
- (a) September 21, 1997
  - (b) February 21, 1996
  - (c) May 21, 1998
  - (d) All the above
- 125. World's first robotic assisted mitral valve operation was done by**
- (a) Professor fredrich Mohr
  - (b) Dr. Carpentier
  - (c) Dr. Venermin
  - (d) None of the above
- 126. All the following are typical symptoms of mitral stenosis except**
- (a) Exertional dyspnoea
  - (b) Chest pain
  - (c) Paroxysmal nocturnal dyspnoea
  - (d) Hemoptysis
- 127. Mitral valve area can be estimated echocardiographically by the following**
- (a) Planimetry
  - (b) Pressure half-time method
  - (c) Continuity method
  - (d) All of the above
- 128. Current indications of intervention in mitral stenosis include all of the following except**
- (a) Symptoms exceeding NYHA class II
  - (b) Thromboembolism
  - (c) Pulmonary hypertension
  - (d) Hemoptysis
- 129. All of the following are only relative contraindications for balloon mitral valvuloplasty except**
- (a) Calcification of mitral leaflets
  - (b) Left atrium thrombus
  - (c) Subvalvular crowding
  - (d) Mitral regurgitation [Grade > 3]
- 130. Forward stroke volume is increased or normal in**
- (a) Acute mitral regurgitation (MR)

- (b) Chronic compensated mitral regurgitation
  - (c) Chronic decompensated mitral regurgitation
  - (d) All of the above
- 131. Severe mitral regurgitation is denoted echocardiographically by all of the following except**
- (a) Colour flow jet area  $> 7.0 \text{ cm}^2$  with TTE
  - (b) Colour jet occupying  $> 50\%$  of LA
  - (c) Colour flow jet area  $> 8.0 \text{ cm}^2$  with TEE
  - (d) Systolic reversal of flow in pulmonary veins
- 132. Indications of mitral valve replacement in chronic mitral regurgitation include all except the following**
- (a) NYHA class III symptoms
  - (b) LV ejection fraction  $< 60\%$
  - (c) LV end systolic dimension  $> 45 \text{ mm}$
  - (d) LV end systolic volume  $> 30 \text{ m}^3/\text{m}^2$
- 133. Mitral valve repair is preferable to mitral valve replacement because of**
- (a) Superior post operative left ventricular function
  - (b) Better survival
  - (c) Obviation of need for anticoagulation
  - (d) All of the above
- 134. Commonest cyanotic congenital heart disease at birth is**
- (a) Fallots tetralogy
  - (b) TAPVD
  - (c) Eisenmenger syndrome
  - (d) D-TGA
- 135. Commonest cyanotic congenital heart disease at 2 years is**
- (a) TGA
  - (b) TOF
  - (c) Fallots triology
  - (d) TAPVD
- 136. Absence of fever in infective endocarditis is found in all the following except**
- (a) Young
  - (b) CHF
  - (c) Severe sepsis
  - (d) Renal failure

- 137. Which murmur in acute rheumatic fever is of no significance?**
- (a) Mitral regurgitation
  - (b) Carrey coombs murmur
  - (c) Aortic ejection murmur
  - (d) Early diastolic murmur of AR
- 138. Snowmans heart is found in**
- (a) Supradiaphragmatic type of TAPVD
  - (b) Infra-diaphragmatic type of TAPVD
  - (c) Both of the above
  - (d) None of the above
- 139. Cyanotic spells are managed by all except**
- (a) Lying position (Supine)
  - (b) IV morphine
  - (c) IV Sodabcarb
  - (d) Propranolol
- 140. Which block commonly occurs postoperatively in TOF?**
- (a) 1 degree AVB
  - (b) CHB
  - (c) LBBB
  - (d) RBBB
- 141. Pericarditis is associated with all except**
- (a) Hydralazine
  - (b) Procainamide
  - (c) Amiodarone
  - (d) Emetine
- 142. All following cyanotic heart disease are mild BVH except**
- (a) DORV with out PS
  - (b) TGA with out PS
  - (c) Truncus arteriosus
  - (d) Fallot's tetralogy
- 143. Pouring pulmonary regurgitation occurs commonly in**
- (a) Complete absence of pulmonary valve
  - (b) Idiopathic dilation of PA
  - (c) Post surgical in PS
  - (d) All the above
- 144. Which is commonest cause of severe atrial regurgitation in young child?**
- (a) VSD with aortic valve
  - (b) Rheumatic

- (c) Bicuspid valve (d) Dissection of aorta

**145. Commonest cause of mild aortic regurgitation in adults**

- (a) Hypertension  
(b) Rheumatoid arthritis  
(c) Osteogenesis imperfecta  
(d) Marfans syndrome

**146. All are causes of non pansystolic murmur in TR except**

- (a) Pulmonary hypertensive TR  
(b) Carcinoid syndromes  
(c) Tricuspid valve prolapse  
(d) Acute Tricuspid regurgitation

**147. Acute tricuspid regurgitation is found in all except**

- (a) Infective endocarditis  
(b) Pacemaker ulcer  
(c) blunt trauma in chest  
(d) Tricuspid valve prolapse

**148. All are causes of MVP without myxomatous degeneration except**

- (a) Coronary artery disease  
(b) RHD  
(c) Flail AML  
(d) Marfan's syndrome

**149. VSD is associated with all the following except**

- (a) A-V canal defect (b) TOF  
(c) Tricuspid atresia (d) Fallot's trilogy

**150. Small ventricular septal defect has all the following features except**

- (a) Left to right shunt < 1.5 : 1  
(b) No cardiac enlargement  
(c) Pansystolic murmur  
(d) MDM flow murmur at apex

**151. AR is caused by aortic root dissection occurs in all the following except**

- (a) Ankylosing spondylitis  
(b) Syphilis  
(c) Rheumatoid  
(d) Marfan's syndromes

- 152. AR due to aortic root dilation occurs in all the following except**
- (a) Marfan's syndrome
  - (b) Ehlers Danlos
  - (c) Pseudoxanthicum elasticum
  - (d) Behcets disease
- 153. Mild atrial regurgitation has none of the following features except**
- (a) Murmur
  - (b) Peripheral signs
  - (c) Left ventricular enlargement
  - (d) Left ventricular failure
- 154. Moderate mitral regurgitation has all the following features except**
- (a) Murmur
  - (b) Peripheral sign
  - (c) Left ventricular enlargement
  - (d) Left ventricular failure
- 155. All the following cyanotic congenital heart diseases causes pulmonary venous engorgement except**
- (a) Aortic atresia
  - (b) Aortic and mitral atresia
  - (c) TAPVD with obstruction
  - (d) Ebstein's anomaly
- 156. Unusually loud A2 in VSD indicates all the following except**
- (a) Associated coarctation of aorta
  - (b) Systemic hypertension
  - (c) Bicuspid aortic valve
  - (d) Associated anemia
- 157. Single S2 in pulmonary atresia suspect all the following except**
- (a) Severe PS
  - (b) TOF
  - (c) Dysplastic pulmonary valve
  - (d) Mild PS
- 158. Wide fixed splitting in eisenmenger syndrome is found in all the following underlying diseases except**

- (a) ASD
- (b) TAPVD
- (c) VSD of AV canal type
- (d) PDA

**159. Diminished A2 in aortic regurgitation is found in all except**

- (a) Rheumatic
- (b) Associated aortic stenosis
- (c) Infective endocarditis
- (d) VSD with aortic regurgitation

**160. Which organism is most commonly causing infective endocarditis?**

- (a) Staphylococcus aureus
- (b) Enterococci
- (c) Gram -ve bacilli
- (d) Pneumococcal

**161. Recurrent pericarditis drug of choice is**

- (a) Steroids
- (b) NSAIDS
- (c) Both above in combination
- (d) Colchicine

**162. All following is correct in pulmonary arterio-venous fistula except**

- (a) Right to left shunt
- (b) Cardiomyopathy is found in all the cases
- (c) Continuous murmur becomes loud with inspiration
- (d) Telangiectasia on skin and mucous membranes

**163. All following are causes of generalized pericardial rub except**

- (a) Viral
- (b) Disseminated disease
- (c) Uremia
- (d) Acute myocardial infarction

**164. Most common associated disease with Ebstein's anomaly is**

- (a) ASD
- (b) VSD
- (c) Accessory pathway with ventricular excitation
- (d) Ventricular arrhythmia

- 165. Most common ECG finding in tricuspid atresia is**
- (a) Marked LAD
  - (b) LVH
  - (c) P congenitale
  - (d) All of the above
- 166. In which type of left ventricular out-flow obstruction AR is rare?**
- (a) Valvular congenital aortic stenosis
  - (b) Acute aquired valvular aortic stenosis
  - (c) HOCM
  - (d) Supravalvular aortic stenosis (Cong)
- 167. Commonest finding in ventricular septal defect is**
- (a) LVH
  - (b) Katz-Wachtel phenomenon
  - (c) RBBB
  - (d) RVH (A)
- 168. All following cyanotic heart disease associated with no cardiac enlargement except**
- (a) Pulmonary A-V fistula
  - (b) SVC draining in to LA
  - (c) IVC draining in to LA
  - (d) Tricuspid atresia
- 169. 3<sup>rd</sup> Heart sound is found in all following cyanotic congenital heart diseases except**
- (a) TAPVD
  - (b) DORV with out PS
  - (c) Truncus arteriosus
  - (d) Fallot's tetralogy
- 170. Which is the most reliable sign in heart in infective endocarditis?**
- (a) Changing cardiac murmur
  - (b) Heart failure
  - (c) New early diastolic murmur of aortic regurgitation
  - (d) Pericardial rub
- 171. Aortic regurgitation and conduction defect is found in all except**
- (a) Ankylosing spondylitis

- (b) Infective endocarditis
- (c) Rheumatoid arthritis
- (d) Syphilitic

**172. Following renal lesions occur in infective endocarditis except**

- (a) Renal infarct
- (b) Diffuse glomerulonephritis
- (c) Pyelonephritis
- (d) Focal embolic nephritis

**173. Coaling-dove murmur of aortic regurgitation is due to all except**

- (a) Laceration of cusps
- (b) Perforation of cusps
- (c) Eversion of cusps
- (d) Calcification of cusps

**174. Which ECG finding is highly characteristic of organic tricuspid regurgitation?**

- (a) RAE
- (b) AF
- (c) RBBB
- (d) qR in V1

**175. Which is the most uncommon finding in organic mitral regurgitation?**

- (a) LAE
- (b) LVH
- (c) Atrial fibrillation
- (d) Left axis deviation

**176. Which of the ECG finding in Mitral regurgitation indicates it to be functional?**

- (a) LAE
- (b) LVH
- (c) RAD
- (d) LAD

**177. Which ECG finding is included in criteria for diagnosis of acute rheumatic fever?**

- (a) Prolonged QT interval
- (b) Prolonged PR interval
- (c) ST/T wave changes
- (d) CHB

**178. Commonest arrhythmia in mitral stenosis is**

- (a) VE
- (b) AE
- (c) Atrial fibrillation
- (d) 1 degree AV block

- 179. Which of the following is indicative of severe rheumatic carditis?**
- (a) Mitral regurgitation
  - (b) Aortic regurgitation
  - (c) Pericarditis
  - (d) Heart failure
- 180. Which of the following peripheral sign is most specific for aortic regurgitation?**
- (a) Corrigan's pulse
  - (b) Water hammer pulse
  - (c) Pistol shot sounds
  - (d) Duroziez's murmur
- 181. Which manifestation of acute rheumatic fever is most common?**
- (a) Chorea
  - (b) Arthritis
  - (c) Carditis
  - (d) Sub cutaneous nodule
- 182. Which valve is most frequently involved in acute rheumatic fever?**
- (a) Aortic
  - (b) Mitral
  - (c) Tricuspid
  - (d) Pulmonary
- 183. Ortnor's syndrome is due to dilation of**
- (a) RA
  - (b) LA
  - (c) RV
  - (d) None of the above
- 184. Which manifestation of aortic stenosis has highest mortality rate?**
- (a) Palpitation
  - (b) Chest pain (Angina)
  - (c) Syncope
  - (d) Dyspnea (heart failure)
- 185. Atrial fibrillation in AS indicates all except**
- (a) Infective endocarditis
  - (b) Associated coronary artery disease
  - (c) Associated MV disease
  - (d) Associated heart failure
- 186. Which of the following feature is found in acute aortic regurgitation?**
- (a) Wide pulse pressure
  - (b) Austin flint murmur

- (c) Acute LVF
  - (d) Significant left ventricular dilatation
- 187. Most important complication of infective endocarditis is**
- (a) Embolism
  - (b) Mycotic aneurysm
  - (c) Heart failure
  - (d) Hematuria
- 188. How many patients of acute rheumatic carditis develop chronic rheumatic valvular heart disease?**
- (a) 10 %
  - (b) 25 %
  - (c) 50 %
  - (d) 90 %
- 189. Pathological hallmark of rheumatic carditis is**
- (a) Myocarditis
  - (b) Valvulitis
  - (c) Commissural fusion
  - (d) Aschoff's nodule
- 190. Which complication is related to severity of mitral stenosis?**
- (a) Atrial fibrillation
  - (b) Thrombo embolism
  - (c) Infective endocarditis
  - (d) RVF
- 191. Most common organism of right sided endocarditis is**
- (a) Staphylococcus aureas
  - (b) Staphylococcus epidermidis
  - (c) Pseudomonas
  - (d) Serratia
- 192. All the following drugs are avoided in treatment of acute pericarditis following acute myocardial infarction except**
- (a) Aspirin
  - (b) Heparin
  - (c) Indomethacin
  - (d) Steroids
- 193. All the following congenital heart disease may be associated congenital coronary artery anomaly except**
- (a) Bicuspid aortic valve
  - (b) TOF
  - (c) Coarctation of aorta
  - (d) PDA

- 194. Growth retardation in congenital heart disease is due to all except**
- (a) Recurrent infection
  - (b) CHF
  - (c) Hypoxia
  - (d) Poor intake
- 195. All are cerebral complications of congenital heart disease except**
- (a) Embolic episodes
  - (b) Cerebral abscess
  - (c) Venous thrombosis
  - (d) Aneurysmal rupture
- 196. All following viruses commonly cause pericarditis except**
- (a) Coxsackie Group 'B'
  - (b) Mumps
  - (c) Ebstein-barr
  - (d) Herpes-simplex
- 197. All following parasites can cause pericarditis except**
- (a) E-histolytica
  - (b) Echinococcus
  - (c) Toxoplasma
  - (d) Tapeworm
- 198. All the following antihypertensive drugs may cause pericarditis except**
- (a) Reserpine
  - (b) Methyldopa
  - (c) hydralazine
  - (d)  $\alpha$ -blockers
- 199. Which pericardial disease particularly occurs in mulibrey namison?**
- (a) Lax pericardial effusion
  - (b) Cardiac tamponade
  - (c) Constrictive pericarditis
  - (d) None of the above
- 200. All the following statement for infective endocarditis are correct except**
- (a) Left sided valves more commonly involved than right side
  - (b) Regurgitant lesions more prone than stenotic lesions
  - (c) Right sided vegetations are larger than left sided

- (d) Fungal endocarditis the vegetation is smaller than streptococcal viridians

**201. Petechial in infective endocarditis occur in all following places except**

- (a) Conjunctiva
- (b) Buccal mucosa
- (c) Skin above the clavicle
- (d) Hands

**202. Multiple small potency infiltrate in X-ray chest suggest endocarditis of which value.**

- (a) Aortic
- (b) Pulmonary
- (c) Mitral
- (d) Tricuspid

**203. All are common location for mycotic aneurysm in infective endocarditis except**

- (a) Proximal aorta
- (b) Intracranial arteries
- (c) Visceral arteries
- (d) Carotids

**204. Weight-loss medication causes commonly which valve lesion?**

- (a) Aortic stenosis
- (b) Mitral regurgitation
- (c) T regurgitation
- (d) Aortic regurgitation

**205. The major cause of mitral regurgitation in mitral valve prolapse is**

- (a) Chordal abnormality
- (b) Infective endocarditis
- (c) Prolapse of leaflet
- (d) Annular dilatation

**206. Mitral valve calcification correlate with which of the following features?**

- (a) LA-LV gradient
- (b) Atrial fibrillation
- (c) Pulmonary hypertension
- (d) Right ventricular failure (RVF)

**207. Most common congenital heart disease is**

- (a) Aortic stenosis
- (b) MVP
- (c) Bicuspid valve
- (d) Fallot's tetralogy

- 208. Annular calcification of mitral valve (MV) occurs in all the following except**
- (a) Hypertension
  - (b) Hyperlipidemia
  - (c) DM
  - (d) Marfan's syndrome
- 209. Which congenital valve lesion is associated with G1 bleeding?**
- (a) Pulmonary stenosis (PS)
  - (b) Aortic stenosis
  - (c) Mitral stenosis
  - (d) Tricuspid stenosis
- 210. Most common hematological finding in infective endocarditis is**
- (a) Anemia
  - (b) Increased ESR
  - (c) Leukocytosis
  - (d) Thrombocytopenia
- 211. Most common serological finding in infective endocarditis is**
- (a) Immune complexes
  - (b) Hyper gammaglobinemia
  - (c) Rheumatoid factor
  - (d) Hypercomplementemia
- 212. Most common urinary finding infective endocarditis is**
- (a) Proteinuria
  - (b) Microscopic hematuria
  - (c) WBC cast
  - (d) RBC cast
- 213. Clot formation in LA most commonly occurs in**
- (a) Appendage
  - (b) Inter atrial septum
  - (c) Body of LA
  - (d) Near MV
- 214. Endocarditis prophylaxis is not indicated in all except**
- (a) ASD (OS)
  - (b) MVP with mitral regurgitation
  - (c) Cardiac pacemakers
  - (d) Implanted defibrillators

**215. All are medication for surgery in IE except**

- (a) Heart failure
- (b) Acute severe regurgitation
- (c) Large vegetation
- (d) Severe acidemia

**216. Mild aortic stenosis is characterized by all except**

- (a) Slow rising pulse
- (b) Normal apex beat
- (c) Absent S4
- (d) Early diastolic murmur

**217. Severe aortic stenosis with normal left ventricular function has all following features except**

- (a) Slow rising low volume pulse
- (b) Apex beat sustained
- (c) S4 is absent
- (d) Late peaking ESM

**218. Severe aortic stenosis with heart failure has all the following feature except**

- (a) Heaving apex beat
- (b) S3 is present
- (c) S4 is present
- (d) No thrill with murmur

**219. Most common cause of acquired PS is**

- (a) Rheumatic
- (b) Infective endocarditis
- (c) Carcinoid syndrome
- (d) Collagen diseases

**220. Normal amount of pericardial fluid is**

- (a) < 5 ml
- (b) 5.10 ml
- (c) 11.14 ml
- (d) 15.50 ml

**221. Most common etiology of isolated tricuspid regurgitation is**

- (a) Infective endocarditis in drug addicts
- (b) Carcinoid syndrome
- (c) TVP
- (d) Myocardial infarction

**222. Most common cause of tricuspid stenosis is**

- (a) Rheumatic
- (b) Carcinoid
- (c) Infective endocarditis
- (d) SLE

**223. Most common cause of pulmonary regurgitation is**

- (a) Pulmonary hypertension
- (b) Rheumatic
- (c) Infective endocarditis
- (d) Tuberculosis

**224. Commonest cause of death in ASD (OS) is**

- (a) Heart failure
- (b) Eisenmengers syndrome
- (c) Paradoxical embolism
- (d) Brain abscess

**225. Most common defect associated with fallot's tetralogy**

- (a) ASD
- (b) Absent ductus arteriosus
- (c) Persistent left superior venacava
- (d) Right sided aortic arch

**226. Most common cyanotic congenital heart disease in adult is**

- (a) Transposition of great arteries
- (b) Double outlet right ventricle
- (c) Eisenmenger syndrome
- (d) Fallot's tetralogy

**227. Atrial fibrillation in mitral stenosis appears to be related to all the following except**

- (a) Atriomegaly
- (b) Fibrosis of LA
- (c) Duration of atriomegaly
- (d) Pulmonary hypertension

**228. Which is commonest anatomical abnormality in mitral stenosis?**

- (a) Commissural
- (b) Chordal
- (c) Cuspal
- (d) Combined

**229. Calcification of aortic valve most commonly occurs in**

- (a) Bicuspid aortic valve
- (b) Rheumatic aortic valve disease

- (c) Degenerative aortic valve disease
  - (d) Aortic valve disease in rheumatoid arthritis
- 230. Mitral valve calcification is more common in which of the following?**
- (a) Mitral stenosis
  - (b) Mitral regurgitation
  - (c) Mitral stenosis + Mitral regurgitation
  - (d) Mitral stenosis with pulmonary regurgitation
- 231. Rheumatic etiology of mitral valve disease is confirmed by presence of calcification at which site?**
- (a) Leaflet calcification
  - (b) Annular calcification
  - (c) Chordal calcification
  - (d) LA wall calcification
- 232. Which statin is known to increase fibrinogen level?**
- (a) Revastatins
  - (b) Atorvastatins
  - (c) Simvastatins
  - (d) Pravastatins
- 233. Which drug commonly produces pericarditis?**
- (a) Procainamide
  - (b) Methyldopa
  - (c) Diphenyl-hydantion
  - (d) Isoniazid
- 234. Which electrocardiographic abnormality indicated severe rheumatic mitral stenosis?**
- (a) LA enlargement
  - (b) RAD
  - (c) Atrial fibrillation
  - (d) Sinus tachycardia
- 235.  $\beta$ -blockers in mitral stenosis with VSR cause all the following except**
- (a) HR decrease
  - (b) Cardiac out put
  - (c) Decrease gradient
  - (d) Harm full
- 236. Organic pulmonary regurgitation is caused by all except**
- (a) IE
  - (b) Following pulmonary valvotomy
  - (c) Rheumatic
  - (d) Rheumatoid arthritis

- 237. Rupture of sinuses of valsalva causes couetichous murmur except**
- (a) Rupture into RA
  - (b) Rupture into RV
  - (c) Rupture into LA
  - (d) Rupture into LV
- 238. Acute aortre regurgitation occurs in all the following except**
- (a) Infective endocarditis
  - (b) Trauma
  - (c) Acute aortic dissection
  - (d) Marfan syndrome
- 239. Right stornal border murmur of AR occurs in all the following except**
- (a) Hartains syndrome
  - (b) Reiter's syndrome
  - (c) Ankylosing spondylitis
  - (d) Infective endocarditis
- 240. Presystolic murmur is absent in mitral stenosis in following except**
- (a) Atrial fibrillation
  - (b) Mild mitral stenosis
  - (c) 1 degree AVB
  - (d) Tachycardia
- 241. Aortic sclerosis has all the following except**
- (a) Short murmur
  - (b) Aortic regurgitation absent
  - (c) No LVH
  - (d) S4 present
- 242. Which is commonest cardiac lesion in ellis van cravald syndrome?**
- (a) ASD (OS)
  - (b) ASD (OP)
  - (c) VSD
  - (d) Snyteatrium
- 243. Webbing of neck is associated with all following cardiac lesion except**
- (a) Coorctation of aorta
  - (b) PS
  - (c) HCM
  - (d) ASD
- 244. All the following cardiac lesion occur in velocardial facial syndrome except**
- (a) VSD
  - (b) ASD

- (c) Fallotes tetralogy
- (d) Right sided aortic arch

**245. Most common complication of BMV is**

- (a) Death
- (b) Cardiac perforation
- (c) Mitral regurgitation
- (d) ASD

**246. ASD following BMV had all the feature except**

- (a) Usually Small 1-2 mm
- (b) Haemodynamically insignificant
- (c) Enounce of paradoxical comboliesm
- (d) Often persist for more than one years

**247. Pericardium is most commonly involved in**

- (a) Scleroderma
- (b) Poly arteritis nodosa
- (c) SLE
- (d) Ankylosing spondylitis

**248. Myocardium is most commonly involved in**

- (a) SLE
- (b) Scleroderma
- (c) Rheumatoid arthritis
- (d) Ankylosing spondylitis

**249. Valves are most commonly involved in**

- (a) SLE
- (b) Scleroderma
- (c) Poly arteritis nodosa
- (d) Rheumatic arthritis

**250. The most characteristic cardiovascular finding in williams syndrome is**

- (a) Supravalvular aortic stenosis
- (b) Peripheral arterial stenosis
- (c) Pulmonary valve stenosis
- (d) ASD

**251. Bolloon aortic valvuloplasty result in all the following except**

- (a) Initial haemodynamic improvement
- (b) Initial symptomatic improvement
- (c) Early restenosis
- (d) Improvement of large torn sorceries

- 252. All are indications of balloon valvuloplasty except**
- (a) Bridge for valve replacement
  - (b) Pre to agent non cardiac surgery
  - (c) Critical symptomatic aortic stenosis
  - (d) Critical symptomatic aortic stenosis with comorbid condition
- 253. Staphylococcus aureus is most common organism involved which IE**
- (a) NVE
  - (b) IV drug user
  - (c) Early PVE
  - (d) Late PVE
- 254. Streptococcus viridians is commonest agent for IE in**
- (a) NVE
  - (b) IV drug user
  - (c) Early PVE
  - (d) Late PVE
- 255. Streptococcus viridians is least commonly involved in IE of**
- (a) NVE
  - (b) IV drug user
  - (c) Early PVE
  - (d) Late PVE
- 256. Highest morbidity and mortality in chronic aortic regurgitation is related to**
- (a) LVESD  $\geq$  50 mm
  - (b) LVESD  $\geq$  70 mm
  - (c) LVESD  $<$  70 mm
  - (d) LVESD  $<$  50 mm
- 257. Valve replacement in chronic aortic regurgitation causes all the following except**
- (a) Increase survival
  - (b) Improve LV function irrespective of duration of dysfunction
  - (c) Improve functional class
  - (d) Regression of LVH
- 258. Which of the following is associated with culture negative endocarditis?**
- (a) NVE
  - (b) IV drug user
  - (c) Early PVE
  - (d) Late PVE
- 259. Thrombus in LA is a contraindication to balloon valvuloplasty (intone) in following situations except**

- (a) Thrombus along the septum
  - (b) Free in the cavity
  - (c) On the surface of valve
  - (d) Organized clot in LA appendage
- 260. Staphylococcus IE occur most commonly in which of the following**
- (a) Early PVE
  - (b) Late PVE
  - (c) IV drug user
  - (d) NVE
- 261. When aspirin is combined to oral anti coagulant in mechanical prosthetic valve?**
- (a) Prileaflet
  - (b) Tilting
  - (c) Caged ball/disc
  - (d) Systemic embolism
- 262. Which of the following is commonest laboratory finding in IE?**
- (a) Increase ESR
  - (b) Microscopic hematuria
  - (c) Preliminaries
  - (d) Positive rheumatoid factor
- 263. All are immunologic phenomena of IE except**
- (a) Thievedo Glumerulenepritrts
  - (b) Osler node
  - (c) Roth spot
  - (d) Mycotic aneurysms
- 264. All following congenital heart disease can cause abnormal LAD except**
- (a) ASD (OP)
  - (b) Tricuspid artesia
  - (c) Single ventricle
  - (d) TOF
- 265. Most common cause of death in unoperated ASD (OS) is**
- (a) Heart failure
  - (b) Pulmonary embolism
  - (c) Brain abscess
  - (d) Atrial arrhythmia
- 266. Most common and diagnostic feature in ECG of A-V canal defect is**
- (a) Superior mean QRS axis in frontal plane
  - (b) Short PR interval
  - (c) RVH
  - (d) LVH

- 267. Superior QRS frontal axis is found in (OS) ASD in all following situations except**
- (a) Single coronary artery
  - (b) MVPS
  - (c) HOCM
  - (d) ASD (OS) with MS
- 268. Cholesterol pericarditis is associated with all except**
- (a) Hypothyroidism
  - (b) Rheumatoid arthritis
  - (c) TB
  - (d) Malignancy
- 269. Pericardiocentesis is indicated in all except**
- (a) Cardiac tamponade
  - (b) Purulent pericarditis
  - (c) Progressive effusion
  - (d) Mild pericardial effusion
- 270. Which valve has prediction for gonococcal endocarditis?**
- (a) Aortic
  - (b) Mitral
  - (c) Tricuspid
  - (d) Pulmonary
- 271. Anemia in normal heart causes heart failure at which level of Hb?**
- (a) 9 G %
  - (b) 7 G %
  - (c) 5 G %
  - (d) 4 G %
- 272. All the following changes may occur in anemia except**
- (a) Cardiomegaly
  - (b) Systolic flow murmur
  - (c) S3
  - (d) S4
- 273. Balloon mitral valvotomy may be done if required which trimester of pregnancy**
- (a) 1<sup>st</sup>
  - (b) 2<sup>nd</sup>
  - (c) 3<sup>rd</sup>
  - (d) any
- 274. Which type of congenital aortic stenosis is not associated with post stenotic dilation of aorta?**
- (a) Unicuspid valve
  - (b) Bicuspid valve

- (c) Hypoplastic aortic valve
  - (d) Dysplastic aortic valve
- 275. Which vascular malformation is associated with cyanosis with normal ECG and normal cardiac size?**
- (a) Fallot's
  - (b) Eisenmenger
  - (c) Pulmonary arterio venous fistula
  - (d) Ebstein disease
- 276. Congenital corrected TGA is characterized by all except (No coexisting lesion)**
- (a) Loud S2 in PA
  - (b) PR elevation
  - (c) LAD
  - (d) Prominent Q in left precordial leads
- 277. Common atria has all following features except**
- (a) Left axis deviation 'P'
  - (b) Cyanosis
  - (c) Significant PH
  - (d) Left axis deviation of QRS
- 278. Lutembacher syndrome has all following features except**
- (a) Reduced signs of mitral stenosis
  - (b) Prominent pulmonary systolic murmur
  - (c) RA/RV dilated
  - (d) PVH is usual
- 279. Accelerated atrial rhythm is found in which of the following**
- (a) PS
  - (b) ASD (OS)
  - (c) Mitral stenosis
  - (d) VSD
- 280. PR interval is prolonged in all the following ASD except**
- (a) Holt oran syndrome
  - (b) Ostium prime defect (APD)
  - (c) familial OS ASD
  - (d) Sinus venosus defect
- 281. Ebsteins anomaly is particularly found in which maternal disorder**
- (a) Alcohol use
  - (b) Lithium
  - (c) Rubella
  - (d)  $\alpha^2$ -blocker

- 282. In common variety of tricuspid atresia all the following may be found except**
- (a) Cyanosis from birth
  - (b) Palpable right ventricle
  - (c) Murmur of VSD restrictive
  - (d) Left axis deviation
- 283. ECG in anomalous origin of left coronary artery from pulmonary track exhibits all the following except**
- (a) Inflect pattern
  - (b) LVH
  - (c) Normal frontal plan QRS axis
  - (d) Persistent ST elevation
- 284. Paradoxical embolism are rare in which type of ASD?**
- (a) OSASD
  - (b) SVASD
  - (c) PFO
  - (d) OPASD
- 285. Angina with aortic stenosis the choice of antianginal is**
- (a)  $\alpha^2$ -blockers
  - (b) Ca-blockers
  - (c) Nitrate
  - (d) Metabolic modulator
- 286. Angina with mitral stenosis which is drug of choice as antianginal agent**
- (a) Nitrate
  - (b)  $\alpha^2$ -blockers
  - (c) Dihydropyridine Ca-blockers
  - (d) Metabolic modulator
- 287. Hilar dance is found in which of the following condition?**
- (a) ASD
  - (b) VSD
  - (c) PH
  - (d) Ebsteins
- 288. Most common ECG finding in constrictive pericarditis is**
- (a) Generalized T wave inversion
  - (b) Generalized ST depression
  - (c) Low voltage
  - (d) Abnormal Q

- 289. Commonest cause of primary acute pericarditis is**
- (a) Acute idiopathic
  - (b) Neoplastic
  - (c) Tuberculosis
  - (d) Collagen vascular disease
- 290. Least common finding in constrictive pericarditis is**
- (a) Hepatomegaly
  - (b) Increase jugular venous pressure
  - (c) Ascites
  - (d) Pericardial knock
- 291. Which is the commonest complication in female with eisenmenger syndrome?**
- (a) Premature delivery
  - (b) Maternal mortality
  - (c) Spontaneous abortion
  - (d) Intrauterine growth retardation
- 292. All are the associated conditions with coarctation of aorta except**
- (a) PDA
  - (b) VSD
  - (c) ASD
  - (d) Cong. mitral stenosis
- 293. Which ASD repair is most common associated with sick sinus syndrome?**
- (a) ASD (OS)                      (b) ASD (OP)
  - (c) Siuns venous ASD              (d) All of the above
- 294. Most common congenital heart disease associated with post operative VT**
- (a) Tricuspid atresia              (b) TOF
  - (c) Aortic stenosis                (d) TAPVD
- 295. Mitral annular calcification occurs in all the following except**
- (a) Marfans syndrome
  - (b) Mitral valve prolapse
  - (c) Secondary hyperparathyroidism
  - (d) Diabetes mellitus

- 296. Aschoff nodule consist of all the following except**
- (a) Fibrinoid necrosis
  - (b) Lymphocyte
  - (c) Macrophages
  - (d) Platelets
- 297. Most frequent clinical manifestation of chronic rheumatic heart disease is**
- (a) Mitral stenosis
  - (b) Mitral stenosis + Mitral regurgitation
  - (c) Mitral regurgitation
  - (d) Aortic stenosis + Aortic regurgitation
- 298. Aschoff nodule are found most commonly in which rheumatic valve lesion**
- (a) Mitral stenosis
  - (b) Mitral regurgitation
  - (c) Aortic stenosis + Mitral regurgitation
  - (d) Aortic regurgitation + Mitral regurgitation
- 299. Ebstein's anomaly commonly associated with all the following except**
- (a) ASD
  - (b) VSD
  - (c) Pulmonary atresia
  - (d) PDA
- 300. Healing vegetation of IE contains all the following cells except**
- (a) Lymphocyte
  - (b) Neutrophils
  - (c) Macrophages
  - (d) Plasma cells
- 301. Which joint is mainly involved in acute rheumatic fever?**
- (a) knee
  - (b) Elbow
  - (c) Ankle
  - (d) Hip
- 302. In which situation systemic embolism rarely occur in IE?**
- (a) Before antibiotic therapy
  - (b) Within 48 hours of therapy
  - (c) In patients of uncontrolled infection
  - (d) Successful antibiotic therapy
- 303. Embolization in infective endocarditis has all the following feature except**
- (a) High risk in left sided endocarditis
  - (b) With large vegetation
  - (c) Predictor of in hospital mortality
  - (d) Is related to type of organism

- 304. Usually heart failure in infective endocarditis is due to**
- (a) Destruction of valve causing regurgitation
  - (b) Myocardial abscess
  - (c) Myocarditis
  - (d) Rhythm disorders
- 305. Most common site of embolism in IE is**
- (a) Cerebral
  - (b) Peripheral
  - (c) Renal
  - (d) Coronary
- 306. Endocarditis of which valve is not associated with neurological complication**
- (a) Aortic
  - (b) Mitral
  - (c) Tricuspid
  - (d) Pulmonary
- 307. Bacteremia in IE usually is**
- (a) Intermittent
  - (b) Transient
  - (c) Persistent
  - (d) All the above
- 308. Positive culture (blood) in infective endocarditis occur in**
- (a) < 50%
  - (b) 60%
  - (c) 70%
  - (d) > 90%
- 309. Most common congenital heart disease is**
- (a) Bicuspid aortic valve
  - (b) ASD
  - (c) VSD
  - (d) MVP
- 310. Calcification in Mitral stenosis depends on all the following except**
- (a) Older age
  - (b) Increase MV gradient
  - (c) Related to sex
  - (d) Related to poor nutrition
- 311. Thrombus formation in body of LA is found in**
- (a) Mitral stenosis
  - (b) Atrial fibrillation
  - (c) SSS
  - (d) All the above
- 312. Avian type of right aortic arch is most commonly associated with**
- (a) TOF
  - (b) Truncus arteriosus
  - (c) TGA
  - (d) ASD

- 313. Common type of right aortic arch is commonly associated with**
- (a) TOF
  - (b) TGA
  - (c) ASD
  - (d) VSD
- 314. In a combined lesion of aortic stenosis + Aortic regurgitation the predominant stenosis is favored by all except**
- (a) Syncope
  - (b) Angina
  - (c) Prolonged systolic murmur
  - (d) LV dilatation
- 315. In a combined lesion of Aortic stenosis + Aortic regurgitation predominant regurgitation is suggested by all following except**
- (a) Angina
  - (b) Prolonged diastolic murmur
  - (c) LV dilated
  - (d) Syncope
- 316. Commonest pathological cause of pulmonary stenosis is**
- (a) Dane shaped valve
  - (b) Dysplastic valve
  - (c) Unicommissural valve
  - (d) Bicuspid valve
- 317. Which ECG sign correlates with RV pressure in PS?**
- (a) R wave height in V1
  - (b) Degree of RAD
  - (c) Magnitude of ST depression in right precordial leads
  - (d) Height of 'P' wave
- 318. Associated lesions with pulmonary artery stenosis are all except**
- (a) TOF
  - (b) PDA
  - (c) PS
  - (d) Bicuspid aortic valve
- 319. Most common cause of pulmonary regurgitation is**
- (a) Idiopathic dilation of PA

- (b) Balloon pulmonary valvuloplasty
- (c) Rheumatic
- (d) Infective endocarditis

**320. All the following signs are found in TS except**

- (a) MDM
- (b) Crescendo presystolic murmur
- (c) Large A wave in neck veins
- (d) Tricuspid OS

**321. Angina in non syphilitic aortic regurgitation has all features except-**

- (a) Coronary artery disease is usually present
- (b) Occurs in paroxysms
- (c) Usually nocturnal
- (d) Profuse sweating

**322. Which of the following cardiac lesion most after complicated by infective endocarditis?**

- (a) Discrete sub aortic stenosis
- (b) Tunnel sub aortic stenosis
- (c) HCM
- (d) Supravalvular aortic stenosis

**323. Which of the pressure may increase compensated Aortic regurgitation?**

- (a) LA
- (b) LVEDP
- (c) PAP (S)
- (d) PAP (D)

**324. In combined lesion of Mitral stenosis + Mitral regurgitation, predominant mitral stenosis is suggested by all except**

- (a) Dyspnoea
- (b) Parasternal heave
- (c) Prolonged diastolic murmur
- (d) S3

**325. In combined lesion of mitral stenosis + mitral regurgitation predominant mitral regurgitation is suggested by all except**

- (a) Fatigue
- (b) S3
- (c) LV enlargement
- (d) Dyspnoea

- 326. In patients of combined lesion of Aortic stenosis + Mitral stenosis the predominant lesion as aortic stenosis is suggested by all except**
- (a) Syncope
  - (b) Angina
  - (c) Low volume slow rising pulse
  - (d) RVH
- 327. In combined lesion of Aortic stenosis + Mitral stenosis the predominant mitral stenosis is suggested by all except**
- (a) Systemic embolism
  - (b) Dyspnoea
  - (c) Dilated left atrium
  - (d) Aortic valve calcified
- 328. Vasodilator therapy in chronic mitral regurgitation may be given for treatment in all the following except**
- (a) Severe
  - (b) A symptomatic
  - (c) Normal LV function
  - (d) Depressed LV function
- 329. All the following are the causes of acute aortic regurgitation except**
- (a) IE
  - (b) Dissection of ascending aorta
  - (c) Traumatic
  - (d) Rheumatic
- 330. Usual organism for infective endo-carditis leading to acute aortic regurgitation is**
- (a) Streptococcus
  - (b) Staphylococcus aureus
  - (c) Pneumococcus
  - (d) Gram negative
- 331. In patients of combined Aortic regurgitation + Mitral stenosis, the predominant lesion as aortic regurgitation is suggested by all except**
- (a) Angina
  - (b) Wide pulse pressure
  - (c) LV enlargement
  - (d) Loud S1

- 332. In patients of combined lesion of Aortic regurgitation + Mitral stenosis, mitral stenosis predominant is favoured by all except**
- (a) Dyspnea
  - (b) Embolism
  - (c) Atrial fibrillation
  - (d) S4
- 333. Following agents are avoided or used cautiously in significant aortic stenosis**
- (a) Proarrhythmics antiarrhythmics
  - (b) Inotropic agent
  - (c) Vasodilators
  - (d) All the above
- 334. Which cardiac chamber is normal in mitral stenosis?**
- (a) RA
  - (b) LA
  - (c) LV
  - (d) RV
- 335. Highest operative mortality of aortic valve replacement is in which of the following?**
- (a) Aortic stenosis with coronary artery disease
  - (b) Aortic stenosis with DM
  - (c) Aortic stenosis older patients
  - (d) Aortic stenosis NYHA class IV
- 336. Aortic valve replacement causes all the following except**
- (a) Improves survival
  - (b) LVH regression usual
  - (c) Diastolic dysfunction may persist even after
  - (d) No LVH
- 337. All are common cardiac signs in normal pregnancy except**
- (a) Pedal edema
  - (b) PND
  - (c) DOE
  - (d) Hemoptysis
- 338. Functional murmurs heard in ASD are all the following except**
- (a) SM in PA
  - (b) MDM in TA
  - (c) Systolic murmur at ASD site
  - (d) None of the above

- 339. How many % of mild mitral regurgitation are clinically detectable?**
- (a) 10 %                      (b)  $\leq 20$  %  
(c) 30 %                      (d) 40 %
- 340. All the following are features of fresh vegetation in bacterial endocarditis except**
- (a) Soft  
(b) Friable  
(c) Independent motion  
(d) Echo dense
- 341. Severe mitral annular calcification demonstrated on echo in which degree of sclerosis?**
- (a) 2 mm                      (b) 5 mm  
(c) 10 mm                      (d)  $> 10$  mm
- 342. In which aortic valve disease statins are helpful in preventing progression?**
- (a) Aortic sclerosis  
(b) Rheumatic aortic stenosis  
(c) Cong. aortic stenosis  
(d) Degenerative aortic stenosis
- 343. Which is the commonest echo finding in constrictive pericarditis?**
- (a) Abnormal pulmonary venous doppler pattern  
(b) Pericardial calcification  
(c) Restrictive mitral flow pattern  
(d) Pericardial thickening
- 344. Aortic stenosis has all the following feature except**
- (a) Pulsars perrvuset lording  
(b) Normal AZ  
(c) Ejection click absent  
(d) Early peaking SM
- 345. Aortic stenosis has all the following feature except**
- (a) Thickened Cusp  
(b) Peak gradient 20 – 25 mm Hg  
(c) Mean gradient  $< 10$  mm Hg  
(d) AVH is  $> 200$  cm<sup>2</sup>

- 346. All are renal complication of infective endocarditis except**
- (a) Renal infarct
  - (b) Renal abscess
  - (c) Pyelonephritis
  - (d) Focal embolic glomerulonephritis
- 347. Which size ASD (OS) is likely to close spontaneously?**
- (a) 5 mm
  - (b) 10 mm
  - (c) 15 mm
  - (d) 3 mm
- 348. Which size ASD (OS) unlikely to close spontaneously?**
- (a) 3 mm
  - (b) 5 mm
  - (c) 7 mm
  - (d) > 8 mm
- 349. Cardiac tamponade in renal disease has all the following feature except**
- (a) Pulses paradoxus after absent
  - (b) RA pressure = Pericardial pressure
  - (c) Wedge pressure is high there RAD
  - (d) JVP is after elevated
- 350. Which of the ECG indicative of large ASD (OS)?**
- (a) Atrial arrhythmias
  - (b) RAD
  - (c) RV conduction delay
  - (d) Both B + C
- 351. Enormous dilatation of main PA and proximal pulmonary artery branches occur in**
- (a) Idiopathic dilatation of PA
  - (b) PS
  - (c) PH
  - (d) Congenital absence of PV
- 352. Calcification most commonly involves which valve?**
- (a) Mitral
  - (b) Aortic
  - (c) Pulmonary
  - (d) Tricuspid
- 353. Hemophysis is usually a feature of**
- (a) Pulmonary valve stenosis
  - (b) Sub valvular pulmonary stenosis
  - (c) Pulmonary artery stenosis
  - (d) None of the above

- 354. Following are the features of idiopathic dilatation of PA except**
- (a) Pulmonary ejection sound
  - (b) Pulmonary systolic murmur
  - (c) S2 wide and fixed
  - (d) No RVH
- 355. Following are arterial pulse abnormalities in acute severe aortic regurgitation except**
- (a) PR increase
  - (b) Rate of rise is increase
  - (c) Bisferiense contour
  - (d) Pulse alternans common
- 356. Following are arterial pulse abnormality in chronic severe aortic regurgitation except**
- (a) Pulses alternans common
  - (b) Bisferins contour present
  - (c) Pulse pressure is increased
  - (d) Rate of rise is increased
- 357. All are ECG features of pulmonary vein except**
- (a) P-pulmonate
  - (b) P-mitral
  - (c) RAD
  - (d) RVH
- 358. All are hemodynamic features of severe acute aortic regurgitation except**
- (a) LVEDP markedly increased
  - (b) Aortic pressure not increased
  - (c) Ejection cardiac out put decreased
  - (d) PVR in Normal
- 359. All are hemodynamic features of chronic severe aortic regurgitation except**
- (a) LV compliance is increased
  - (b) LVEDP is increased
  - (c) Systolic blood pressure markedly increased
  - (d) Effective cardiac out put is normal
- 360. All are physical findings in TR except**
- (a) Prominent 'v' wave in jugular
  - (b) Enlarged pulsatile liver
  - (c) Typical murmur
  - (d) Absent x & y deicent

- 361. BVH is eissenmager syndrome found in all the following causes of except**
- (a) Single verotricle
  - (b) TGA
  - (c) Truncus arteriesis
  - (d) TAPVD
- 362. Ebsteins anomaly has all following signs except**
- (a) Multiple sounds
  - (b) TR murmur
  - (c) TS murmur
  - (d) RV left
- 363. Inured movement of precardiac drugs systolic occurs in all except**
- (a) Pure TR
  - (b) Constrictive pericarditis
  - (c) ASD
  - (d) All of the above
- 364. All following are complications of PDA except**
- (a) Pulmonary artery aneurysm
  - (b) Ductal calcification
  - (c) Paradoxical embolism
  - (d) None of the above
- 365. Which of the following drug is given for prevention and treatment of hypoxic spells?**
- (a) Ca-blockers
  - (b) Propranolol
  - (c) Diuretics
  - (d) ACE inhibitors
- 366. In cardiac tamponade all the following signs are absent except**
- (a) Pulses paradoxus
  - (b) Kussmaul's sign
  - (c) Pericardial knock
  - (d) Absent X descent
- 367. Adult patients with cyanotic congenital heart disease has all the following renal function abnormalities except**
- (a) Decrease GFR
  - (b) Proteinuria
  - (c) Hyperuricemia
  - (d) Hematuria
- 368. In aortic failure of mitral stenosis which strategy is particularly effective?**
- (a) DC shock
  - (b) Amiodarone
  - (c) Maze procedure
  - (d) All the above

- 369. Which is more natural cause of infective endocarditis vegetations?**
- (a) Appear during therapy
  - (b) Increase in size during therapy
  - (c) Unchanged during therapy
  - (d) Gradually contract during prolonged period with therapy
- 370. In all the following situations endocarditis occurs comments except**
- (a) Valvular heart disease
  - (b) Prosthetic valve
  - (c) Drug abusers
  - (d) Intracardiac foreign body
- 371. Commonest fungus involved in endocarditis**
- (a) Histoplasma
  - (b) Cryptococcus
  - (c) Blastomycosis
  - (d) Aspergillosis
- 372. Commonest cause of multivalvular disease**
- (a) Rheumatic
  - (b) Infective endocarditis
  - (c) Degenerative valve calcification
  - (d) Marfan's syndrome
- 373. All the following disorders have definite association with MVP except**
- (a) Marfan's syndrome
  - (b) Osteogenesis imperfecta
  - (c) Ehlers-Danlos syndrome
  - (d) Pseudoxanthoma elasticum
- 374. Most reliable investigation for assessing volume of aortic regurgitation is**
- (a) Clinical reliable
  - (b) X-ray chest
  - (c) Echo
  - (d) Supravalvular aortogram
- 375. Silent or nearly silent severe aortic regurgitation occur in all the following except**
- (a) Paravalvular leak
  - (b) Severe aortic regurgitation with severe heart failure
  - (c) S-Regurgitation occurring due to marked loss of valve substance
  - (d) Congenital aortic regurgitation

**376. Musical aortic regurgitant murmur indicate all the following except**

- (a) Calcification of aortic valves
- (b) Fenestration of aortic valves cusp
- (c) Perforation of aortic valves cusp
- (d) Aversion of aortic valves cusps

**377. The term free aortic regurgitation is used to decrolic which finding**

- (a) Long early diastolic murmur
- (b) LV enlargement
- (c) Diastolic blood pressure  $> 30$  mmHg
- (d) All the above

**378. If ascending aorta is greatly enlarged in aortic stenosis which etiology is likely**

- (a) Rheumatic
- (b) Degenerative
- (c) Bicuspid valve
- (d) Ankylosing spondylitis

**379. Presence of S4 in aortic stenosis in child signifies the gradient at aortic value is**

- (a)  $< 40$  mmHg
- (b)  $40-50$  mmHg
- (c)  $50-60$  mmHg
- (d)  $\geq 70$  mmHg

**380. Syncope in aortic stenosis may caused by all the following except**

- (a) VT
- (b) Transient electromechanical dissociation
- (c) Vasodilatation
- (d) CHB

**381. Brain abscess as a complication of cyanotic heart most frequently found in**

- (a) Fallots tetralogy
- (b) Eissenmengers syndrome
- (c) TAPVD
- (d) Tricuspid atresia

**382. The peak systolic gradient across PV in ASD without PS usually is**

- (a)  $< 10$  mmHg
- (b)  $20$  mmHg
- (c)  $30$  mmHg
- (d)  $60$  mmHg

- 383. Mean pressure gradient of 3 mmHg or more between two atria with O<sub>2</sub> step up at atrial level except**
- (a) Left ventricular RA shunt
  - (b) Partial TAPVD without ASD
  - (c) Patent foramen ovale with Lt atrial hypertension
  - (d) All the above
- 384. P-mitrale suggest what in patients of mitral stenosis**
- (a) RAE
  - (b) LAE
  - (c) RVH
  - (d) None of the above
- 385. Extremely Tall 'P' is seen in**
- (a) Eisenmenger's
  - (b) Fallot's tetralogy
  - (c) TGA
  - (d) Ebstein's disease
- 386. Dyspnoea appears in mitral stenosis at which valve area**
- (a)  $< 1 \text{ cm}^2$
  - (b)  $< 1.5 \text{ cm}^2$
  - (c)  $2.0 \text{ cm}^2$
  - (d)  $2-2.5 \text{ cm}^2$
- 387. In aortic stenosis associated CAD is favoured by all the following**
- (a) ACQMI
  - (b) Remote QMI
  - (c) Root angina
  - (d) Effort angina
- 388. Risk of congenital heart disease in offspring if one parent is effected is in all the following except**
- (a) VSD
  - (b) Left sided obstruction
  - (c) Right sided obstruction
  - (d) Ebstein's disease
- 389. All the following statements regarding PDA are correct except**
- (a) Functional closure with in 10-15 hours
  - (b) Anatomical closure completed within 2-3 weeks
  - (c) Closure commonly begun at aortic end
  - (d) Closure most commonly begins at pulmonary end
- 390. All the following factors influence ductal closure except**
- (a) Increase O<sub>2</sub> tension

- (b) Vasoactive substances
- (c) pH
- (d) Hypocapnia

**391. Negligible risk for infective endocarditis is in all the following except**

- (a) ASD (OS)
- (b) Atherosclerotic plaque
- (c) Syphilitic aortitis
- (d) Catheter in right heart

**392. Culture negative endocarditis is found in all except**

- (a) If culture taken after 3 months
- (b) Uremia
- (c) Right sided endocarditis
- (d) If patients on antibiotics

**393. Least common sign in prosthetic valve endocarditis is**

- (a) Splenomegaly
- (b) Cutaneous lesion
- (c) Systemic embolism
- (d) Petechiae

**394. Commonest laboratory finding in prosthetic valve endocarditis is**

- (a) Leukocytosis
- (b) Anemia
- (c) Haematuria
- (d) Leucopenia

**395. Least common physical finding in infective endocarditis is**

- (a) Clubbing
- (b) Retinal lesion
- (c) Splenomegaly
- (d) Osler's node

**396. Fever in infective endocarditis may be absent in all the following except**

- (a) Renal failure
- (b) CHF
- (c) Elderly
- (d) Unusual organism

**397. Commonest valve involved in infective endocarditis of IV drug abusers is**

- (a) Prosthetic valve
- (b) Native mitral valve
- (c) Native tricuspid valve
- (d) Native aortic valve

- 398. Prosthetic valve endocarditis most commonly occur at**
- (a) Aortic
  - (b) Mitral
  - (c) Tricuspid
  - (d) Pulmonary
- 399. Native valve endocarditis most commonly occurs at which valve**
- (a) Aortic
  - (b) Mitral
  - (c) Tricuspid
  - (d) Aortic and mitral valve
- 400. Native valve endocarditis less commonly involves**
- (a) Aortic
  - (b) Mitral
  - (c) Tricuspid
  - (d) Pulmonary
- 401. Least common cardiac disease in which endocarditis occurs is**
- (a) Congenital heart disease
  - (b) Mitral valve disease
  - (c) Aortic valve disease
  - (d) Tricuspid valve disease
- 402. What is hematocrit in sanguineous pericardial effusion?**
- (a) 10 %
  - (b) 15 %
  - (c) 20 %
  - (d) Any of the above
- 403. What is haematocrit in bloody pericardial effusion?**
- (a) < 10 %
  - (b) > 10 %
  - (c) 20 %
  - (d) Similar to circulating blood
- 404. Parasite diseases of pericardium are**
- (a) Amoebiasis
  - (b) Filariasis
  - (c) Hydatid disease
  - (d) All of the above
- 405. Which fungus directly involves pericardium?**
- (a) Actinomycosis
  - (b) Histoplasmosis
  - (c) Aspergillosis
  - (d) Candidiasis
- 406. Most common cause of effusive constrictive pericarditis is**

- (a) Idiopathic
- (b) Rheumatoid arthritis
- (c) Renal failure
- (d) Neoplastic

**407. Physiological cause of pericardial effusion**

- (a) Elderly
- (b) Neonate
- (c) During lactation in woman
- (d) During pregnancy

**408. S4 is heard in chronic AR in all the following situations except**

- (a) Aortic regurgitation with hypertension
- (b) Severe aortic stenosis with mild aortic regurgitation
- (c) Mild aortic regurgitation with coronary artery disease
- (d) Prosthetic valve malfunction

**409. S4 in aortic stenosis indicate the gradient of**

- (a) 20 mmHg
- (b) 30 mmHg
- (c) 40 mmHg
- (d)  $\geq 50$  mmHg

**410. All are common causes of acute severe aortic regurgitation except**

- (a) Infective endocarditis
- (b) Trauma
- (c) Rheumatic
- (d) Dissection of aorta

**411. Commonest causes of severe mitral regurgitation (Isolated) is**

- (a) MVP
- (b) Rheumatic
- (c) Ischemia
- (d) Infective endocarditis

**412. Which is the rare symptom in mitral regurgitation?**

- (a) Dyspnaea
- (b) Fatigue
- (c) Palpitation
- (d) Hemoptysis

**413. Giant LA on X-ray in mitral regurgitation suggest which etiology**

- (a) Rheumatic
- (b) MVP
- (c) Ischemic
- (d) Dilated CMP

- 414. Mitral regurgitation in congenital heart disease occurs in all the following except**
- (a) A-V canal defect
  - (b) OP ASD
  - (c) Corrected TGA
  - (d) VSD
- 415. Most common cause of acute aortic regurgitation is**
- (a) Trauma
  - (b) Dissection of aorta
  - (c) Infective endocarditis
  - (d) Rheumatic
- 416. All are neurological and autonomic dysfunction in MVP except**
- (a) High adrenergic activity
  - (b) Abnormal rennin aldosterone regulation
  - (c) Abnormal catecholamine regulation
  - (d) Abnormal thyroid function
- 417. Most frequent consequence of aortic balloon valvuloplasty is**
- (a) Arrhythmia
  - (b) Embolism
  - (c) Restenosis
  - (d) Syncope
- 418. ST elevation in acute pericarditis is seldom present in early stage of pericarditis in which etiological type of acute pericarditis**
- (a) Trauma
  - (b) Viral
  - (c) Tuberculosis
  - (d) Idiopathic
- 419. Common significant murmur in acute rheumatic carditis is**
- (a) Aortic regurgitation
  - (b) Carrey coombs
  - (c) Apical pan systolic
  - (d) All the above
- 420. Which statement is correct for normal diastolic pressure is found in aortic regurgitation?**
- (a) Acute aortic regurgitation
  - (b) Mild chronic aortic regurgitation
  - (c) Aortic regurgitation with LVF
  - (d) All the above

- 421. In chronic severe aortic regurgitation the usual pulse pressure is**
- (a) 50 mmHg
  - (b) 60 mmHg
  - (c) 70 mmHg
  - (d)  $\geq 100$  mmHg
- 422. Which skeletal abnormality is not found in MVP?**
- (a) Straight back
  - (b) Pectus excavatum
  - (c) High arched palate
  - (d) Arachnodactyly
- 423. All the following connective tissue disorders occur with MVP except**
- (a) Marfans syndrome
  - (b) Ehlers-Danls syndrome
  - (c) Pseudoxanthoma elasticum
  - (d) Hurlers Syndrome
- 424. All the following lesions of aortic valve produce dominant stenosis except**
- (a) Bicuspid valve
  - (b) Unicuspid
  - (c) Quadricuspid
  - (d) Degenerative
- 425. All the following AV diseases produces dominant regurgitation except**
- (a) Rheumatic
  - (b) Collagen disease
  - (c) Infective endocarditis
  - (d) Senile
- 426. All the following mitral valve disease produce pure-mitral regurgitation except**
- (a) Parachute deformity
  - (b) Myxomatous
  - (c) Ischemia
  - (d) Cleft valve
- 427. Following are the causes of flail mitral valve leaflet except**
- (a) Myxomatous chordal rupture
  - (b) Vegetation with chordal rupture
  - (c) Ischemic rupture of papillary muscle head
  - (d) Rheumatic heart disease

- 428. Lateral movement of earlobe occurs in**
- (a) Aortic regurgitation
  - (b) Tricuspid regurgitation
  - (c) Tricuspid stenosis
  - (d) None of the above
- 429. Which is rare physical sign in organic tricuspid stenosis?**
- (a) Mid diastolic murmur
  - (b) Presystolic murmur
  - (c) Loud S1
  - (d) Opening snap
- 430. Severe chronic aortic regurgitation usually has all the following features except**
- (a) Long duration of murmur
  - (b) S1 decrease
  - (c) S2 paradoxical split in absence of LBBB
  - (d) Peripheral signs of aortic regurgitation
- 431. LV dysfunction in aortic regurgitation is indicated by all the following except**
- (a) Disappearance of peripheral signs of aortic regurgitation
  - (b) Sustained apex beat
  - (c) S3
  - (d) No change in duration of EDM
- 432. Commonest cause of constrictive pericarditis**
- (a) Viral
  - (b) Idiopathic
  - (c) Pyogenic
  - (d) Neoplastic
- 433. Commonest cause of constrictive pericarditis in India is**
- (a) Viral
  - (b) Pyogenic
  - (c) Tuberculosis
  - (d) Idiopathic
- 434. Commonest arrhythmia in constrictive pericarditis is**
- (a) Atrial ectopics
  - (b) Atrial tachycardia
  - (c) Atrial fibrillation
  - (d) Sick sinus syndrome
- 435. Uremia causes which of the following pericardial disease**
- (a) Pericarditis

- (b) Pericardial effusion
- (c) Acute tamponade
- (d) Constrictive and effusive constrictive pericarditis
- (e) All of the above

**436. All are possible associations of pericardial disease except**

- (a) Atrial septal defect
- (b) Aortic regurgitation
- (c) Thalassemia
- (d) Giant urticaria

**437. Which is least quantity of rapid pericardial effusion which produces cardiac tamponade?**

- (a) 50–100 ml
- (b) 100–150 ml
- (c) 160–190 ml
- (d) 200 ml

**438. All are physiological functions of pericardium except**

- (a) Lubricator
- (b) Protect the heart from contiguous infection
- (c) Protect the heart from acute dilatation
- (d) Protect the heart from trauma

**439. All are causes of hemopericardium except**

- (a) Acute myocardial infarction
- (b) Rupture of pseudo aneurysm
- (c) Ascending aortic dissection
- (d) Antiplatelet therapy

**440. All are hemodynamic features of constrictive pericarditis except**

- (a) Increase RAP
- (b) Increase RV & LV filling pressure
- (c) RVP = LVP
- (d) No Pulmonary hypertension

**441. All are hemodynamic features of cardiac tamponade except**

- (a) RAP increases
- (b) RV/LV filling pressure increased
- (c) RVP = LVP
- (d) PAP increases

**442. Patent ductus arteriosus has all following features except**

- (a) Communication between proximal descending thoracic aorta 2-10 mm beyond the origin of left subclavian artery to the origin of left pulmonary artery
- (b) Usual length 15 mm
- (c) Wide pulmonary orifice
- (d) Wide aortic orifice

**443. Right atrial compression in cardiac tamponade is absent in all the following except**

- (a) Associated pulmonary hypertension
- (b) Associated right heart failure
- (c) Associated tricuspid valve disease
- (d) Ventricular septal defect

**444. Most important echocardiographic sign of cardiac tamponade is**

- (a) Right atrium collapse
- (b) Right ventricle collapse
- (c) Exaggerated respiratory variations of in atrioventricular inflow velocity.
- (d) Highly exaggerated respiratory variations in the relative size of two ventricles

**445. Most rare cause of constrictive pericarditis is**

- (a) Viral
- (b) Tuberculosis
- (c) Collagen disease
- (d) Rheumatic

**446. Intra pericardial pressure of 4–5 mmHg in pericardial effusion has all the following features except**

- (a) Asymptomatic
- (b) No abnormal physical finding
- (c) Beginning of cardiac tamponade
- (d) Dyspnea on exertion

**447. Intra pericardial pressure 8–10 mmHg in pericardial effusion results in all the following except**

- (a) Asymptomatic
- (b) Normal blood pressure
- (c) Normal pulse
- (d) JVP is normal

- 448. If intra pericardial pressure is approximately 15 mmHg all following signs of cardiac tamponade appear except**
- (a) Pulsus paradoxus
  - (b) Profound fall in blood pressure
  - (c) Dyspnea
  - (d) Fatigue
- 449. If Intra cardiac pressure is  $\geq 20$  mmHg all following are found except**
- (a) Pulsus paradoxus
  - (b) Severe decompensation
  - (c) Profound fall in blood pressure
  - (d) Cardiac out put is normal
- 450. Most frequently encountered intracardiac shunt with coarctation of aorta is**
- (a) ASD
  - (b) VSD
  - (c) Single ventricle
  - (d) Single atrium
- 451. Most frequent shunt lesion in coarctation of aorta is**
- (a) ASD
  - (b) VSD
  - (c) PDA
  - (d) All the above
- 452. Rib notching in coarctation of aorta has all the following except**
- (a) Occurs on inferior and under surface of ribs
  - (b) Seldom appears before the age 7 years
  - (c) Notching is always bilateral
  - (d) 3<sup>rd</sup> to 9<sup>th</sup> ribs are involved
- 453. Ebstein's anomaly is found in which of teratogenic disorder**
- (a) Rubella
  - (b) Phenytoin induced
  - (c) Alcohol induced
  - (d) Lithium induced
- 454. On ECG presence of RA enlargement left axis deviation and LVH indicates which disorder**
- (a) Single ventricle
  - (b) Truncus arteriosus
  - (c) Fallot's tetralogy
  - (d) Tricuspid artesia
- 455. Left atrial thrombi in mitral stenosis commonly embolize to all except**
- (a) Brain
  - (b) Kidney
  - (c) Spleen
  - (d) Liver

- 456. Ball-valve thrombus in mitral stenosis present with all the following except**
- (a) Syncope
  - (b) Angina
  - (c) Changing auscultatory signs
  - (d) All of the above
- 457. PFO may pose all the following problems except**
- (a) Thrombo embolism
  - (b) Air embolism
  - (c) Right-left shunting (desiderated blood)
  - (d) Vegetable embolism
- 458. Major clinical problem with PFO is**
- (a) Thrombo-embolism in young
  - (b) Air embolism
  - (c) Vasoactive substance shunted to left side
  - (d) All of the above
- 459. In what percentage PFO is present in general population?**
- (a) 5 %
  - (b) 10 %
  - (c) 15 %
  - (d) 25 %
- 460. What is minimum size of PFO?**
- (a) 0.5 mm
  - (b) 1 mm
  - (c) 5 mm
  - (d) 15 mm
- 461. What is maximum size of PFO?**
- (a) 10 mm
  - (b) 15 mm
  - (c) 18 mm
  - (d) 19 mm
- 462. What is mean size of PFO?**
- (a) 2 mm
  - (b) 3 mm
  - (c) 4 mm
  - (d) 5 mm
- 463. All are the features of fallot's triology except**
- (a) Giant 'a' in neck veins
  - (b) RVH
  - (c) Dilatation of main pulmonary artery
  - (d) Right aortic arch
- 464. All are common associated lesions in fallot's tetralogy except**
- (a) Left superior vena cava
  - (b) Right aortic arch

- (c) ASD
- (d) Subaortic stenosis

**465. Rheumatic nodule has all following features except**

- (a) Firm
- (b) Painful
- (c) 0.5–2 cm in diameter
- (d) Situated over tendon or bony prominences

**466. All are causes of central cyanosis with left ventricular hypertrophy except**

- (a) Tricuspid atresia
- (b) Total anomalous systemic venous drainage
- (c) IVC to LA shunt
- (d) Ebstein's anomaly

**467. All are causes of death in Eisenmengers complex except**

- (a) Right heart failure
- (b) Haemoptysis
- (c) Cerebral abscess
- (d) Ventricular arrhythmia

**468. All the following signs are usually found in pulmonary valve Stenosis except**

- (a) Giant 'a' wave
- (b) RVH
- (c) No click
- (d) Loud pulmonary systolic murmur with thrill

**469. All are causes of cyanosis central in ASD except**

- (a) TAPVD
- (b) IVC to LA
- (c) Eisenmenger syndrome
- (d) Mitral regurgitation

**470. Most frequent congenital heart disease in elderly persons is**

- (a) ASD
- (b) PDA
- (c) PS
- (d) None of the above

- 471. Most frequent presentation of acute myocardial infarction in elderly is**
- (a) Acute LVF
  - (b) CVA
  - (c) Peripheral embolism
  - (d) Atypical chest Pain
- 472. Most common cyanotic congenital heart disease in pregnant women is**
- (a) Tricuspid atresia
  - (b) Fallot's tetralogy
  - (c) TGA
  - (d) None of the above
- 473. Most common L-R shunt resulting in R-L shunt is**
- (a) VSD
  - (b) ASD
  - (c) PDA
  - (d) Endocardial cushion defect
- 474. Most common type of supra valvular aortic stenosis is**
- (a) Hour glass type
  - (b) Uniform hypoplasia
  - (c) Fibro muscular
  - (d) None of these
- 475. In which of the following Diastolic blood pressure alternans is found with normal pulse?**
- (a) Acute LVF
  - (b) Acute myocardial infarction
  - (c) Acute pulmonary embolism
  - (d) Congenital absence of pericardium
- 476. Crochetage sign is found in all the following except**
- (a) ASD OS
  - (b) SV ASD
  - (c) PFO
  - (d) OP ASD
- 477. Crochetage sign is valuable in ASD in predicting all the following except**
- (a) Location of ASD
  - (b) Severity of shunt
  - (c) With rSR pattern the ECG diagnosis is with specificity

- (d) Directly correlates with severity of pulmonary hypertension

**478. Mechanism of calcification in bicuspid valve are all except**

- (a) Unequal cusps
- (b) Hypercholesterolemia
- (c) Mechanical stress
- (d) Hypercalcemia

**479. All are hemodynamic features in acute severe aortic regurgitation except**

- (a) Increased peripheral vascular resistance
- (b) Ejection fraction not increased
- (c) Pulse pressure not significantly increased
- (d) Left ventricular end diastolic pressure is normal

**480. U shaped tortuous retinal arterioles are found in hypertension associated with**

- (a) Pheochromocytoma
- (b) Hyperthyroidism
- (c) Coarctation of aorta
- (d) Reno vascular disease

**481. Which of the following is rare in congenital mitral stenosis?**

- (a) Right heart failure
- (b) Right axis deviation
- (c) Right ventricular hypertrophy
- (d) Atrial fibrillation

**482. Which test is best for definitive diagnosis of congenital absence of pericardium?**

- (a) X-ray
- (b) ECG
- (c) Echocardiography
- (d) MRI Thorax

**483. Systolic murmur of tricuspid regurgitation in Ebstein's disease has all the following features except**

- (a) Heard usually towards apex
- (b) Increases with inspiration
- (c) Scratchy or rub like
- (d) Decrescendo

- 484. S1 sound in Ebstein's anomaly has following feature**
- (a) Tricuspid component is delayed
  - (b) Mitral component is loud
  - (c) Tricuspid component is loud
  - (d) Heard best between apex and left sternal border
- 485. S2 has all the following characteristic in Ebstein's anomaly except**
- (a) Wide and fixed splitting
  - (b) Paradoxical splitting
  - (c) Single S2
  - (d) P2 is increased
- 486. Commonest ECG change in Ebstein's anomaly is**
- (a) WPW-B
  - (b) Supra ventricular arrhythmia
  - (c) RBBB
  - (d) 'P' pulmonale
- 487. Most consistent feature of Ebstein's anomaly on X-ray is**
- (a) Increase cardiac shadow
  - (b) Increase right atrium shadow
  - (c) Decrease pulmonary vascularity
  - (d) Pulmonary trunk inconspicuous
- 488. In which cyanotic congenital heart disease both aortic root and pulmonary trunk are likely to be normal or reduced?**
- (a) Fallot's tetralogy
  - (b) Truncus arteriosus
  - (c) Eisenmenger's reaction
  - (d) Ebstein's anomaly
- 489. Most common ECG abnormality in acute rheumatic fever is**
- (a) Conduction defect
  - (b) T-wave changes
  - (c) Abnormal rhythm
  - (d) Abnormal axis deviation
- 490. ECG is usually abnormal in what percentage of cases of acute Rheumatic fever-**

- (a) 10 %                      (b) 20 %  
(c) 30 %                      (d) > 50 %

**491. Which is rare valvular defect (Rheumatic) combination?**

- (a) Mitral stenosis + Aortic stenosis  
(b) Mitral stenosis + Aortic regurgitation  
(c) Mitral stenosis + TR  
(d) Mitral stenosis + TS

**492. For pericardiocentesis minimum volume of fluid is required in pericardial cavity**

- (a) 5 mm Anteriorly  
(b) 10 mm Posterally  
(c) 10 mm Anteriorly  
(d) A amount of fluid does not matter

**493. All following are causes of death in Eisenmenger's complex except**

- (a) Heart failure              (b) IE  
(c) Brain abscess              (d) Hyperviscosity

**494. How often aortic regurgitation is present in congenital aortic stenosis?**

- (a) Not present              (b) 10 %  
(c) 30 %                      (d) Approx 50 %

**495. Low pressure cardiac tamponade typically occurs in**

- (a) Purulent pericarditis  
(b) Rheumatic pericarditis  
(c) Haemopericardium  
(d) In CRF during dialysis

**496. Which physical sign is rare in cardiac tamponade?**

- (a) Obliterated Y descent  
(b) Increase JV pressure  
(c) Pulsus paradoxus  
(d) Pericardial rub

**497. Commonest cause of death in PDA is**

- (a) Heart failure  
(b) Rupture of ductal aneurysm  
(c) Hypertensive aneurysm of pulmonary trunk  
(d) Infective endocarditis

- 498. Pulmonary oligemia develops in PS in which of the following situation?**
- (a) Mild PS
  - (b) Mead PS
  - (c) Severe PS
  - (d) Severe PS with RVF
- 499. In which of the following congenital heart disease the berth weight is more than normal?**
- (a) TGA
  - (b) Fallots tetralogy
  - (c) Fallots triology
  - (d) Truncus arteriosus
- 500. In which of the following conditions the pulmonary ejection sound does not decrease with inspiration?**
- (a) PS
  - (b) PH
  - (c) Fallots tetralogy
  - (d) TGA
- 501. Egg shaped heart shadow with narrow pedicle and increase pulmonary vascularly found in**
- (a) Ebsleucus disease
  - (b) Total APVD
  - (c) TGA
  - (d) Truncus arteriosis
- 502. Trammel values in truncus arteriosus is often**
- (a) Tricuspid
  - (b) Bicuspid
  - (c) Qaudricuspid
  - (d) Pentacuspid
- 503. All following congenital heart disease are associated with congenital animated of coronary arteries except**
- (a) Congenitally corrected TGA
  - (b) Bicuspid value
  - (c) TGA
  - (d) PDA-Reversed
- 504. All following ECG founding in anomalous angina of left coronary artery from pulmonary bank except**
- (a) LVH
  - (b) LAD
  - (c) Q in L1 avL
  - (d) Q in right precedent loads
- 505. Most common cause of acute aortic regurgitation is**
- (a) Infective endocarditis
  - (b) Hypertension

- (c) Trauma
  - (d) Dissection of aorta
- 506. Auscultation in supine position in mitral stenosis may reveal only which of the following abnormality**
- (a) OS
  - (b) Loud S1
  - (c) Presystolic murmur
  - (d) Mid diastolic murmur
- 507. Most common associated cardiac defect with ebstein's anomaly is**
- (a) WPW syndrome
  - (b) ASD
  - (c) MVP
  - (d) All of the above
- 508. Which valvular lesion often presents with systolic hypertension?**
- (a) Mitral regurgitation
  - (b) Aortic regurgitation
  - (c) Mitral stenosis
  - (d) Aortic stenosis
- 509. Malignant pericardial effusion commonly occurs from all except**
- (a) Lung carcinoma
  - (b) Breast carcinoma
  - (c) Esophagus
  - (d) Lymphoma
- 510. Beck's triad includes all except**
- (a) Hypotension
  - (b) Muffled heart sounds
  - (c) Juglar neck vein distension
  - (d) Absent Y descent
- 511. Poorest prognosis in constrictive pericarditis occurs in which etiological type**
- (a) Viral
  - (b) Idiopathic
  - (c) Radiation induced
  - (d) Tuberculosis
- 512. Most common cause of constrictive pericarditis in west is**
- (a) Viral
  - (b) Tuberculosis
  - (c) Idiopathic
  - (d) Post cardiac surgery

- 513. Most common acquired cause of pulmonary stenosis is**
- (a) Rheumatic
  - (b) Carcinoid
  - (c) Atherosclerosis
  - (d) None of the above
- 514. Best results of balloon valvuloplasty are obtained in**
- (a) Mitral stenosis
  - (b) Pulmonary stenosis
  - (c) Aortic stenosis
  - (d) Tricuspid stenosis
- 515. Rupture of sinus of valsalva usually occurs in**
- (a) Right atrium
  - (b) Right ventricle
  - (c) Left atrium
  - (d) Left ventricle
- 516. All are pericardial syndromes except**
- (a) Acute pericarditis
  - (b) Chronic pericarditis
  - (c) Pericardial effusion
  - (d) Constrictive pericarditis
- 517. Mitral valve narrowing in mitral stenosis progresses at which rate**
- (a) 0.05 cm/year
  - (b) 0.06 cm/year
  - (c) 0.08 cm/year
  - (d) 0.09 cm/year
- 518. The average size of PFO is**
- (a) < 5 mm
  - (b) 6 – 8 mm
  - (c) 9 – 12 mm
  - (d) > 12 mm
- 519. Most likely mechanism of acute rheumatic fever by group a streptococcus**
- (a) Toxic effect of bacteria
  - (b) Serum sickness like reaction
  - (c) Autoimmune phenomena
  - (d) Molecular mimicry
- 520. Which manifestation of acute rheumatic fever has potential to cause long-term disability?**
- (a) Carditis
  - (b) Rheumatic disease
  - (c) Dermatic lesions
  - (d) Neurologic lesion

- 521. All the following are clinical manifestations of carditis; for diagnosis which is required**
- (a) New murmur
  - (b) Cardiomyopathy
  - (c) Congestive heart failure
  - (d) Pericarditis
  - (e) Any of the above
- 522. Subcutaneous nodules of acute rheumatic fever have all following characteristics except**
- (a) Comes in crops
  - (b) Occurs on bony prominences
  - (c) 0.5 to 2 cm in size
  - (d) Painful
- 523. Tricuspid stenosis on X-ray is indicated by all except**
- (a) Dilated heart
  - (b) No pulmonary congestion
  - (c) No pulmonary hypertension
  - (d) Mild pulmonary hypertension
- 524. Most common ECG abnormality in myocarditis is**
- (a) AV block
  - (b) ST/T changes
  - (c) Sinus tachycardia
  - (d) Left bundle branch block
- 525. Biventricular hypertrophy is usually present in which of the following lesion**
- (a) VSD
  - (b) AS
  - (c) MR
  - (d) TR
- 526. Most common ECG abnormality in MVP is**
- (a) ST/T changes in inferior lead
  - (b) QT prolongation
  - (c) WPW syndrome
  - (d) Sinus node dysfunction
- 527. Family history of murmur is commonly found in which of the following?**
- (a) Congenital valvular aortic stenosis
  - (b) Congenital subvalvular aortic stenosis
  - (c) Rheumatic aortic stenosis
  - (d) HOCM

- 528. Family history of sudden childhood death is commonly found in**
- (a) Rheumatic mitral stenosis
  - (b) HOCM
  - (c) Congenital valvular aortic stenosis
  - (d) Congenital subvalvular aortic stenosis
- 529. All the following biochemical changes causes aortic stenosis to progress more rapidly except**
- (a) Hypercholesterolemia
  - (b) Hypocalcemia
  - (c) Hyperglycemia
  - (d) Elevated serum creatinine
- 530. Which is least common cause of mitral stenosis?**
- (a) Rheumatic
  - (b) Scarlet fever
  - (c) Infective endocarditis
  - (d) Rheumatoid arthritis
- 531. All the following skeletal abnormalities occur in MVP except**
- (a) Straight back syndrome
  - (b) Pectus excavatum
  - (c) Scoliosis
  - (d) Kyphosis
- 532. Which is the commonest combination of valve involvement in RHD?**
- (a) Mitral + Pulmonary
  - (b) Mitral + Aortic + Pulmonary
  - (c) Mitral + Tricuspid + Pulmonary
  - (d) All four valves
- 533. Which is characteristic feature of juvenile mitral stenosis?**
- (a) Retarded growth
  - (b) Severe pulmonary hypertension
  - (c) S1 loud
  - (d) History of frequent soar throat
- 534. RVH on ECG is consistently found in mitral stenosis at which systolic pressure of RV?**
- (a) 60 mmHg
  - (b) 70 mmHg

- (c) 80 mmHg                      (d) > 100 mmHg

**535. The occurrence of AF in mitral stenosis correlates with all the following except**

- (a) Degree of atriomegaly
- (b) Duration of atriomegaly
- (c) Extent of LA fibrosis
- (d) Rheumatic carditis

**536. The AV block and intraventricular blocks in calcific aortic stenosis are is rolareld all the following except**

- (a) Septal trauma from high intramyocardial tension
- (b) Hypoxic damage
- (c) Extension of calcification
- (d) LVH

**537. ECG indicators for severity of aortic stenosis are all the following except**

- (a) St. decrease > 3 mm
- (b) Total 12 lead voltages
- (c) Strain pattern
- (d) Loss of R wave in V1-V3

**538. Conduction defects in aortic regurgitation are frequently found in all following etiologies of aortic regurgitation except**

- (a) Rheumatic arthritis
- (b) Ankylosing spondylitis
- (c) SLE
- (d) Congenital

**539. Which cyanotic congenital heart disease causes wide pulse pressure?**

- (a) TGA                                      (b) Single ventricle
- (c) Truncus                                      (d) Follots tetralogy

**540. Coronary angiography may be required in mitral stenosis in the following situations except**

- (a) LV dysfunction
- (b) Age > 35 years
- (c) Clinical history suggestive of coronary artery disease
- (d) Male patients

- 541. Most common cause needing surgery in severe mitral regurgitation in west is**
- (a) Ischemia mitral regurgitation
  - (b) MVP
  - (c) Rheumatic
  - (d) MAC
- 542. Molar flush in mitral stenosis is caused by all except**
- (a) Peripheral cyanosis
  - (b) Systemic vasdilatation
  - (c) Severe pulmonary hypertension
  - (d) Purple-pinkish patches on cheeks
- 543. Which is the commonest associated condition with MVP?**
- (a) Tricuspid valve prolapse
  - (b) Aortic valve prolapse
  - (c) Pulmonary valve prolapse
  - (d) ASD (OS)
- 544. Most common symptom of MVP is**
- (a) Chest Pain
  - (b) Dyspnea
  - (c) Palpitation
  - (d) Syncope
- 545. TR without TS Occurs in all the following except**
- (a) Functional
  - (b) Idiopathic hypereosinophilic syndrome
  - (c) TVP
  - (d) Post inflammatory
- 546. Most common cause of TR**
- (a) Rheumatic
  - (b) Embolism
  - (c) Functional
  - (d) CHD
- 547. Most common congenital heart disease apart from MVP and bicuspid aortic valve**
- (a) ASD
  - (b) VSD
  - (c) PDA
  - (d) Coarctation of aorta
- 548. Least common cyanotic congenital heart disease is**

- (a) Truncus arteriosus
- (b) Tricuspid atresia
- (c) TAPVD
- (d) Pulmonary atresia with out VSD

**549. The tricuspid valve gradient in severe TS is**

- (a) 2-3 mmHg
- (b) 3-5 mmHg
- (c) 5 mmHg
- (d)  $\geq 6$  mmHg

**550. Hemoptysis in eissenmengere's occurs because of**

- (a) Rupture of fragile neovascular channels
- (b) Pulmonary infarction
- (c) Both of the above
- (d) None of the above

**551. Immediate cause of death in eissenmenger's include all the following except**

- (a) Dehydration
- (b) CC
- (c) Surgery
- (d) Infective endocarditis

**552. Which is commonest cause of constrictive pericarditis?**

- (a) Idiopathic
- (b) Tuberculosis
- (c) Uraemia
- (d) Neoplastic

**553. Which is commonest cause of constrictive pericarditis in known etiologies?**

- (a) Tuberculosis
- (b) Neoplastic
- (c) Uremia
- (d) Acute rheumatic fever

**554. What amount of fluid is needed for cardiac sillhouette to enlarge in pericardial effusion?**

- (a) 50 ml
- (b) 100 ml
- (c) 150 ml
- (d)  $> 200$  ml

**555. New born with cyanotic congenital heart disease which shows LAD on ECG**

- (a) TGA
- (b) Truncus arteriosus
- (c) AV canal defect
- (d) Tricuspid atresia

- 556. Most characteristic X-ray finding in constrictive pericarditis is**
- (a) Cardiac silhouette is slightly enlarged
  - (b) Pulmonary venous redistribution
  - (c) Pericardial calcification
  - (d) Distended azygous vein and superior vena cava
- 557. Which of the following finding is absent in constrictive pericarditis?**
- (a) Increase JVP
  - (b) Enlarged vein
  - (c) Ascites
  - (d) RV not palpable
- 558. Choice of incision in pericardiectomy in constrictive pericarditis is**
- (a) Anterolateral thoracotomy
  - (b) Medial sternotomy
  - (c) Bilateral anterior thoracotomy
  - (d) Any of the above
- 559. Most common manifestation of neoplastic pericardial involvement is**
- (a) Cardiac tamponade
  - (b) Constrictive pericarditis
  - (c) Pericardial effusion chronic
  - (d) Effusive constrictive pericarditis
- 560. Functional component in increased pulmonary vascular resistance in Eisenmenger's is due to all except**
- (a) Hypoxia
  - (b) Acidosis
  - (c) Increase catecholamines
  - (d) Decrease PBF
- 561. Which histological changes pulmonary vascular tree indicates irreversible pulmonary vascular obstruction?**
- (a) Medial thickening
  - (b) Intimal thickening
  - (c) Both of the above
  - (d) Plexiform lesion
- 562. Ductus patency rate is higher in**
- (a) Premature birth
  - (b) Birth at high altitude
  - (c) Both of the above
  - (d) None of the above

- 563. Large PDA (L-R shunt) causes dilation of all the following except**
- (a) LV
  - (b) LA
  - (c) Aorta
  - (d) RV
- 564. All the following are the ECG criteria of complete repair of VSD except**
- (a) Rapid regression of RV hypertrophy
  - (b) Rapid regression left atrial enlargement
  - (c) Rapid regression of LVH
  - (d) QRS axis remain abnormally shifted
- 565. What happens to QRS axis of canal defect is repaired completely?**
- (a) No change
  - (b) Regress partially to normal
  - (c) regress completely to normal
  - (d) None of the above
- 566. Most specific indicator of RVP in VSD is**
- (a) R in V1
  - (b) Katz watchel's phenomenon
  - (c) RBBB
  - (d) RAD
- 567. Which type of VSD leads to enlargement of all chambers of heart?**
- (a) Canal defect significant A-V valve Regurgitation
  - (b) Large gerbodes defect
  - (c) Both of the above
  - (d) None of the above
- 568. Pulmonary artery banding is often restricted to which VSD**
- (a) VSD with straddling tricuspid valve
  - (b) Swiss cheese defect
  - (c) Large VSD with coarctation
  - (d) All of the above
- 569. Infective endocarditis is seen in all the following in VSD except**
- (a) RVOT
  - (b) Free wall
  - (c) Tricuspid value apparatus
  - (d) IVS

- 570. Which type of VSD produces maximum murmur over the upper sternum?**
- (a) Gerbodes defect
  - (b) Supracristal VSD
  - (c) Infracrista VSD
  - (d) None of the above
- 571. PR interval is prolonged in which types of VSD**
- (a) Common A-V canal defect
  - (b) Gerbodes defect
  - (c) Both of the above
  - (d) None of the above
- 572. All 4-chamber enlargement in young patients of ASD suggest**
- (a) Secundum ASD
  - (b) Primun ASD
  - (c) SV ASD
  - (d) CS ASD
- 573. Significant left-right shunting occurs with which type of VSD at birth?**
- (a) Small defect
  - (b) Muscular defect
  - (c) Moderate VSD
  - (d) Gerbodes defect
- 574. Grave prognostic ECG sign of pulmonary valve stenosis is**
- (a) Height of R wave in V1
  - (b) T wave inversion V1-V3
  - (c) RAD
  - (d) T wave inversion progresses rapidly from V1-V3 to left precordial leads
- 575. Cyanosis in ASD in absence of pulmonary hypertension is present in**
- (a) Coronary sinus defect
  - (b) Sinus venosus defect with straddling SVC
  - (c) ASD (OS) with large eustachian valve
  - (d) All of the above
- 576. Bicuspid valve is most commonly associated with which of the following conditions?**
- (a) Hypoplastic left heart syndrome
  - (b) Coarctation of aorta
  - (c) VSD
  - (d) Aberrant origin of coronary artery

**577. Pulmonary stenosis most commonly occurs at which location?**

- (a) Valve
- (b) Infundibulum
- (c) PA branch
- (d) Combination

**578. Acquired coarctation of aorta occurs in all the following except**

- (a) Primary aortitis
- (b) Aortic dissection
- (c) Extrinsic compression by tumor mass
- (d) Syphilis

**579. All are radiological signs found in acquired coarctation of aorta except**

- (a) Dilatation of ascending aorta
- (b) Dilatation of left subclavian artery
- (c) Rib notching
- (d) Cardiac enlargement

**580. Which of the following indicates good myocardial function in heart disease?**

- (a) Sinus bradycardia
- (b) Sinus tachycardia
- (c) Sinus arrhythmia
- (d) None of the above

**581. Which secondary systemic hypertensives usually do not exhibit fundal changes?**

- (a) Renal
- (b) Coarctation of aorta
- (c) Hyperaldosteronism
- (d) Pregnancy related hypertension

**582. Pathognomonic sign of atrioventricular canal defect is**

- (a) RA + RV enlargement
- (b) Increase pulmonary vascular movements
- (c) Cleft MV
- (d) 'Goose' Neck deformity on selective LV angiocardiology

**583. All are common associated lesion with bicuspid aortic valve except**

- (a) PDA
- (b) ASD
- (c) VSD
- (d) Coarctation of Aorta

- 584. All following are complication of co-arctation of aorta except**
- (a) Hypertension
  - (b) Endarteritis
  - (c) Aortic aneurysm
  - (d) Ventricular tachycardia
- 585. Most common associated anomaly with ebstein's disease is**
- (a) WPW syndrome
  - (b) ASD
  - (c) Tricuspid valve prolapse
  - (d) Pulmonary stenosis
- 586. RV out flow tract obstruction in fallots tetralogy is often at**
- (a) Supravalvular
  - (b) Valvular
  - (c) Subvalvular
  - (d) Multiple levels
- 587. What is the usual growth rate of aortic stenosis?**
- (a) 2 mm/year
  - (b) 5 mm/year
  - (c) 1 mm/year
  - (d) < 1 mm/year
- 588. Narrowing at base of heart on X-ray chest is characteristic of**
- (a) Fallots tetralogy
  - (b) Truncus arteriosus
  - (c) Eissenmenger syndrome
  - (d) Transposition of the great vessels
- 589. Commonest cause of tricuspid stenosis is**
- (a) Rheumatic
  - (b) Ebstein's disease
  - (c) Carcinoid
  - (d) Congenital
- 590. All following drugs cause valvular heart disease except**
- (a) Antidepressant
  - (b) Dexfenfluramine
  - (c) Ergotamine
  - (d) Methysergide
- 591. Aortic stenosis in elderly exhibits all following except**
- (a) Wide pulse pressure
  - (b) Musical murmur often best heard at apex
  - (c) Hypertension is often found
  - (d) A2 is loud

- 592. All following are indication of coronary angiography in aortic stenosis except**
- (a) Age  $\geq$  35 years
  - (b) Age < 35 year with LV dysfunction
  - (c) Age < 35 year with two or more risk factors for premature CAD excluding gender
  - (d) In all patients of severe aortic stenosis
- 593. Hallmark of aortic stenosis on X-ray chest is**
- (a) LV enlargement
  - (b) Post stenotic aortic dilation
  - (c) Calcified aortic valve
  - (d) Dilatation of left atrium
- 594. In fallots tetralogy survival normally depends on**
- (a) Degree of pulmonary stenosis
  - (b) Degree of overriding
  - (c) Degree of RVH
  - (d) Degree of collateral flow
- 595. Most common congenital heart disease heart hand syndrome is**
- (a) VSD
  - (b) PDA
  - (c) OP (ASD)
  - (d) ASD (OS)
- 596. Which valve is rarely calcified?**
- (a) Aortic
  - (b) Mitral
  - (c) Pulmonary
  - (d) Tricuspid
- 597. Peripheral pulmonary artery stenosis is particularly found with**
- (a) ASD
  - (b) VSD
  - (c) PDA
  - (d) AS (Valvular)
- 598. Pulses paradoxus is best detected in**
- (a) Carotid artery
  - (b) Femoral artery
  - (c) Brachial artery
  - (d) Radial artery
- 599. Which ECG finding is pathognomonic of cardiac tamponade?**
- (a) ST Segment deviation
  - (b) T wave inversion
  - (c) Low voltages
  - (d) Alternation of P and QRS

- 600. Enlargement of coronary sinus occurs in following left-right shunt except**
- (a) Partial anomalous pulmonary venous drainage
  - (b) Total anomalous pulmonary venous drainage
  - (c) Coronary arterial-coronary sinus fistula
  - (d) ASD (OS)
- 601. Short left veins coronary is found frequently with**
- (a) Fallots tetralogy
  - (b) TG
  - (c) DORV
  - (d) Bicuspid AV
- 602. Which cyanotic congenital heart disease is not associated anomalous coronary arteries?**
- (a) Tetralogy of fallots
  - (b) Complete transposition of great arteries
  - (c) Ebstein's disease
  - (d) Truncus arteriosus
- 603. X-ray chest in hypoplastic left heart shows all the following except**
- (a) RA enlargement
  - (b) RV dilation
  - (c) Ascending aorta dilatation
  - (d) Pulmonary arterial dilatation
- 604. Which of following congenital heart disease does not cause 1st degree AV block?**
- (a) ASD (OS)
  - (b) VSD
  - (c) PDA
  - (d) Ebsteins anomaly
- 605. Most important clinical finding in MV prolapse**
- (a) Non ejection systolic click
  - (b) Ejection systolic click
  - (c) Multiple ejection systolic click
  - (d) Mild mitral regurgitation
- 606. Rheumatic aortic stenosis is always associated with**
- (a) Mitral valve disease
  - (b) Aortic fibrillation
  - (c) (Mild) aortic regurgitation
  - (d) Heart failure

**607. Most common type of truncus arteriosus is**

- (a) Type I
- (b) Type II
- (c) Type III
- (d) All the above

**608. All are features of dysplastic pulmonary valve stenosis except**

- (a) Three distinct cusps
- (b) No commissural fusion
- (c) P2 is soft or absent
- (d) Prominent pulmonary ejection sound

**609. Truncal valve is usually**

- (a) Unicuspid
- (b) Bicuspid
- (c) Tricuspid
- (d) All the above

**610. Least common presentation of truncal valve is**

- (a) Mild atrial regurgitation
- (b) Moderate atrial regurgitation
- (c) Severe atrial regurgitation
- (d) Aortic stenosis

**611. Most common congenital heart disease associated with right aortic arch**

- (a) Fallot's tetralogy
- (b) Fallot's trilogy
- (c) Truncus arteriosus
- (d) Eisenmenger complex

**612. Fetal mortality is highest in mitral stenosis in which of the following**

- (a) Class III NYHA on medical treatment
- (b) NYHA class IV on medical treatment
- (c) Mitral valvotomy
- (d) Mitral valve replacement

**613. Maternal mortality is highest in mitral stenosis with pregnancy in which therapy**

- (a) Mitral valvotomy
- (b) Mitral valve replacement
- (c) NYHA class IV on medical treatment
- (d) All the above groups

**614. All following maternal disease are associated with congenital heart disease in newborn**

- (a) IDDM
- (b) Phenylketonuria
- (c) Rubella
- (d) Hypertension

- 615. All following are ECG indicator's of severe aortic stenosis except**
- (a) Left atrial enlargement
  - (b) Left ventricular hypertrophy without ST & T charges
  - (c) Left ventricular hypertrophy with starts
  - (d) Left bundle branch block
- 616. When pulmonary vascular disease is more common in ASD?**
- (a) ASD (OS) large
  - (b) In males (ASD OS)
  - (c) In females (ASD OS)
  - (d) Sinus venosus ASD
- 617. All following maternal medication are associated with congenital heart disease in newborn except**
- (a) Alcohol abuse
  - (b) Lithium
  - (c) Warfarin
  - (d) Heparin
- 618. Commonest complication of pregnancy in eisenmenger's syndrome**
- (a) Spontaneous abortion
  - (b) IUGR
  - (c) Premature delivery
  - (d) Perinatal mortality
- 619. Which combined valvular lesion has worst hemodynamic state?**
- (a) Mitral stenosis with aortic stenosis
  - (b) Mitral regurgitation with aortic stenosis
  - (c) Mitral regurgitation with atrial regurgitation
  - (d) Mitral stenosis with atrial regurgitation
- 620. All following congenital heart disease are associated with supraventricular tachycardia except**
- (a) ASD
  - (b) Ebsteins disease
  - (c) TGA
  - (d) PDA
- 621. Pericarditis does not occurs in all following disorders except**
- (a) Ankylosng spondylitis
  - (b) Vasculitis

- (c) Polymyositis      (d) SLE

**622. Left heart is enlarged in all the following congenital heart disease except**

- (a) Aortic stenosis  
(b) Coarctation of aorta  
(c) ASD  
(d) Tricuspid atresia

**623. All following are associated with pericardial disease except**

- (a) ASD  
(b) Thalassemia  
(c) Giant urticaria  
(d) Aortic regurgitation

**624. PR interval is prolonged in all the following ASDs except**

- (a) Sinus venosus ASD  
(b) Ostium primum ASD  
(c) Holtoram syndrome  
(d) Adult with Large ostium secundum ASD

**625. Silent duration has all the feature except**

- (a) < 1 mm  
(b) No continuous murmur  
(c) No infective endocarditis  
(d) Recognized clinically by abnormal S2

**626. Cyanotic spell's are mainly due to**

- (a) Increased infundibular resistance  
(b) Decreased peripheral  
(c) Decreased blood pressure  
(d) All the above

**627. Which ECG criterion in infective endocarditis is indicative of worsening prognosis?**

- (a) Sinus tachycardia  
(b) Bundle branch block  
(c) Left ventricular hypertrophy  
(d) Prolonged PR interval

**628. Which ECG finding in infective endocarditis is probable indication for surgery?**

- (a) Ventricular extrabeats  
(b) RBBB  
(c) PR prolongation      (d) PR shortening

- 629. Which is most important complication of infective endocarditis?**
- (a) Clubbing
  - (b) Splenomegaly
  - (c) Heart failure
  - (d) Embolism
- 630. Common organism in late prosthetic valve endocarditis is**
- (a) Streptococci
  - (b) Staphylococci
  - (c) Gram -ve bacilli
  - (d) Fungi
- 631. Pericardial knock in constrictive pericarditis rarely occurs**
- (a) Children
  - (b) Adults
  - (c) Middle aged
  - (d) Elderly
- 632. Aortic enlargement on X-ray is more often seen in**
- (a) TOF
  - (b) Hypertension
  - (c) Coarctation of aorta
  - (d) None of the above
- 633. Fetal warfarin syndrome causes which congenital heart disease**
- (a) Aortic stenosis
  - (b) TOF
  - (c) PDA
  - (d) ASD
- 634. Aortic stenosis occurs in which of the following?**
- (a) Turner's syndrome
  - (b) Trisomy 21
  - (c) Trisomy 18
  - (d) Trisomy 13
- 635. Highest incidence of congenital heart disease is found in**
- (a) Trisomy 13 syndrome
  - (b) Cri-do-cat syndrome
  - (c) Trisomy 18 syndrome
  - (d) Turner's syndrome
- 636. Dextrocardia is found in**
- (a) Trisomy 13 syndrome
  - (b) Trisomy 18 syndrome
  - (c) Trisomy 21 syndrome
  - (d) Turner syndrome

**637. Birth weight is increased in**

- (a) Corrected TGA
- (b) TGA
- (c) Fallot's tetralogy
- (d) Truncus arteriosus

**638. Most common radiological abnormality MVP is**

- (a) Pectus excavatum
- (b) Straight back syndrome
- (c) Scoliosis
- (d) Kyphosis

**639. Which is the rare complication of MVP?**

- (a) Sudden cardiac death
- (b) Stroke
- (c) Mitral regurgitation
- (d) Infective endocarditis

**640. Rupture of chordae tendinae is most commonly due to**

- (a) Rheumatic
- (b) IE
- (c) Idiopathic
- (d) MVP

**641. Most common ECG feature of MVP is**

- (a) T inversion in inferior leads
- (b) T inversion in lateral leads
- (c) ST depression in inferior + Lateral leads
- (d) Right bundle branch block

**642. Which arrhythmia is uncommon in aortic regurgitation?**

- (a) Bundle branch block
- (b) Ventricular arrhythmia
- (c) AV blocks
- (d) Atrial fibrillation

**643. Silent aortic regurgitation develops in all the following except**

- (a) Paravalvular leak
- (b) Aortic regurgitation with heart failure
- (c) Aortic regurgitation with marked loss of valve substance
- (d) Mild aortic regurgitation

**644. Which is the common cardiac abnormality in marfan's syndrome?**

- (a) Aortic regurgitation
- (b) MVP
- (c) Mitral annular dilatation
- (d) Aortic root dilatation

- 645. Most reliable tool for assessing severity of aortic regurgitation is**
- (a) Clinical sign
  - (b) ECG changes
  - (c) Doppler echo
  - (d) Supravalvular aortogram
- 646. Syncope in aortic stenosis is due to all the following except**
- (a) Ventricular arrhythmia
  - (b) Transient electro mechanical dissociation
  - (c) Peripheral vasodilation
  - (d) CHB
- 647. Dyspnea in mitral stenosis indicate MVA of**
- (a)  $2 \text{ cm}^2$
  - (b)  $> 2 \text{ cm}^2$
  - (c)  $2 - 1.5 \text{ cm}^2$
  - (d)  $< 1.5 \text{ cm}^2$
- 648. All are clinical manifestation of cardiovascular autonomic neuropathy except**
- (a) Exercise intolerance
  - (b) Painless infarction
  - (c) Orthostatic hypotension
  - (d) Orthostatic hypertension
- 649. Ca channel blockers are not**
- (a) Antihypertensive
  - (b) Cardiovascular protectives
  - (c) Antiischaemic
  - (d) All of the above
- 650. What is average diameter of PFO?**
- (a) 2 mm
  - (b) 3 mm
  - (c) 4 mm
  - (d) 4.9 mm
- 651. Katz wachtel phenomenon in ECG is commonly found in**
- (a) Advanced ASD (OS)
  - (b) Advanced VSD
  - (c) Advanced PDA
  - (d) None of the above
- 652. T wave is inverted in only in V1 in which disease?**
- (a) TOF
  - (b) Severe PS

- (c) Eisenmenger's disease
- (d) None of the above

**653. Most common congenital heart disease producing LBBB**

- (a) VSD
- (b) Atrial stenosis
- (c) Truncus arteriosus
- (d) TGA

**654. Changes phenomenon is used for**

- (a) Atrial aberrant cardioclic
- (b) Ventricular aberrant cardioclic
- (c) Both above
- (d) None of the above

**655. Most common ECG finding in single ventricle is**

- (a) RVH
- (b) LVH
- (c) BVH
- (d) RAD

**656. Murmur of congenital regurgitation has all the following feature except**

- (a) High pitched
- (b) Heard always the left sternal border
- (c) Decrescendo
- (d) Pulmonary hypertension is absent

**657. Which ECG finding is strong indication for aortic stenosis in children?**

- (a) LA enlargement
- (b) LVH
- (c) LBBB
- (d) LAD

**658. Most specific finding ostium primum ASD in children is**

- (a) 1 degree AV block
- (b) RBBB
- (c) LAD
- (d) RBBB + LAD

**659. Cyanotic child with palpable LV and No RV lift the possibilities are except**

- (a) Pulmonary atresia with intact ventricular septum
- (b) Tricuspid atresia
- (c) Ebsteins disease
- (d) Single atrium

- 660. Moon facies are associated with which cardiac lesion**
- (a) Severe pulmonary valve stenosis
  - (b) Aortic stenosis
  - (c) Mitral stenosis
  - (d) Tricuspid stenosis
- 661. All following are common manifestation of infective endocarditis except**
- (a) Roth spots
  - (b) Osler nodes
  - (c) Janeway lesion
  - (d) Renal infarct
- 662. Reverse coarctation has all following features except**
- (a) In young adults
  - (b) More common in females
  - (c) Pulse less arms
  - (d) Myocardial infarction more common
- 663. Which is most common site of coarctation of aorta?**
- (a) Preductal
  - (b) Juxtaductal
  - (c) Post ductal
  - (d) Abdominal aorta
- 664. Acute Aortic regurgitation is characterized by all except**
- (a) LV compliance not increased
  - (b) End diastolic pressure markedly increased
  - (c) Aortic systolic pressure not increased
  - (d) Ejection fraction is increased
- 665. Maximum duration of antibiotic therapy is needed in which organism causing infective endocarditis?**
- (a) Streptococcus viridans
  - (b) Staphylococcus epidermidis
  - (c) Culture negative
  - (d) Penicillin resistant streptococci
- 666. Which haematologic abnormalities is not found in infective endocarditis?**
- (a) Leukocytosis
  - (b) Anaemia
  - (c) Increase ESR
  - (d) Thrombocytosis

- 667. Which immunologic abnormality is not found in infective endocarditis?**
- (a) Rheumatoid factor
  - (b) Cryoglobulinemia
  - (c) Increase complement levels
  - (d) Increase complexes
- 668. Normal AV orifice size is**
- (a) 2–3 cm<sup>2</sup>
  - (b) 3–4 cm<sup>2</sup>
  - (c) 4–4 cm<sup>2</sup>
  - (d) > 4.5 cm<sup>2</sup>
- 669. Symptomatic aortic stenosis develops when AVA is**
- (a) 1–1.5 cm<sup>2</sup>
  - (b) 2–2.5 cm<sup>2</sup>
  - (c) > 2.5–3 cm<sup>2</sup>
  - (d) < 1 cm<sup>2</sup>
- 670. What is the average decrease in valve area/year in aortic stenosis?**
- (a) 0.02 cm<sup>2</sup>
  - (b) 0.03 cm<sup>2</sup>
  - (c) 0.04 cm<sup>2</sup>
  - (d) 0.05–0.1 cm<sup>2</sup>
- 671. Average increase in mean pressure gradient/year in aortic stenosis**
- (a) 2 mm Hg
  - (b) 3 mm Hg
  - (c) > 15 mm Hg
  - (d) > 3 to < 11 mm Hg
- 672. Which aortic stenosis progresses most rapidly?**
- (a) Degenerative
  - (b) Congenital
  - (c) Rheumatic
  - (d) All of the above
- 673. Most common type of VSD is**
- (a) Perimembranous
  - (b) Muscular
  - (c) Inlet defect
  - (d) Outlet defect
- 674. Lithium use in mother causes which heart disease commonly**
- (a) Ebsteins anomaly
  - (b) ASD
  - (c) TGA
  - (d) Truncus arteriosus
- 675. Which complication in ebsteins disease uncommon?**
- (a) Right ventricular failure
  - (b) Ventricular tachycardia
  - (c) Paradoxical embolism
  - (d) Infective endocarditis

- 676. What is not found in idiopathic dilatation of pulmonary artery?**
- (a) Loud P2
  - (b) Ejection click
  - (c) Systolic murmur
  - (d) RVH
- 677. The malformed tricuspid valve in Ebsteins disease is usually**
- (a) Incompetent
  - (b) Stenotic
  - (c) Imperforate
  - (d) Both incompetent and stenotic
- 678. Cor triatriatum has all following features except**
- (a) 1<sup>st</sup> HS not increase
  - (b) No murmur
  - (c) Opening snap rare
  - (d) Atrial fibrillation common
- 679. Left atrial pressure is normal in which of following**
- (a) Rheumatic mitral stenosis
  - (b) Congenital mitral stenosis
  - (c) Core triatriatum
  - (d) Pulmonary vein stenosis
- 680. All following are found in coarctation of aorta except**
- (a) Murmur
  - (b) Hypertensive
  - (c) LVH
  - (d) Hypertensive retinopathy
- 681. Congenital mitral stenosis is most commonly associated with**
- (a) PDA
  - (b) Coarctation of aorta
  - (c) Bicuspid valve
  - (d) None of the above
- 682. Maternal ingestion of vitamin D is associated with which congenital heart disease**
- (a) PS
  - (b) Supravalvular aortic stenosis
  - (c) PDA
  - (d) Pulmonary artery branch stenosis

- 683. All following are normal in severe Aortic regurgitation except**
- (a) Effective stroke volume
  - (b) Effective cardiac output
  - (c) HR
  - (d) Ejection fraction
- 684. All following are increased in acute severe aortic regurgitation except**
- (a) Peripheral vascular resistance
  - (b) HR
  - (c) Left ventricular end-diastolic pressure
  - (d) Effective stroke volume
- 685. All following are normal in chronic severe aortic regurgitation**
- (a) 1<sup>st</sup> HS
  - (b) P2
  - (c) Pulmonary venous vascularity
  - (d) Aortic root
- 686. All following conditions are associated with congenital aortic regurgitation except**
- (a) Bicuspid valve
  - (b) Tricuspid valve
  - (c) Discrete sub aortic stenosis
  - (d) Supravalvular aortic stenosis
- 687. In chronic severe aortic regurgitation all are increased except**
- (a) Peripheral vascular resistance
  - (b) LV compliance
  - (c) Regurgitant volume
  - (d) LV ejection velocity
- 688. Syncope is usually found in**
- (a) Aortic stenosis
  - (b) Mitral stenosis
  - (c) Aortic regurgitation
  - (d) Mitral regurgitation
- 689. RVH is found in valvular lesion**
- (a) Mitral stenosis
  - (b) Mitral regurgitation
  - (c) Aortic regurgitation
  - (d) Aortic stenosis

- 690. Vasodilators are used in which valvular disease?**
- (a) Acute mitral regurgitation
  - (b) Aortic stenosis
  - (c) Mitral stenosis
  - (d) None of the above
- 691. Which antihypertensive causes gingival hyperplasia?**
- (a)  $\beta$ -blockers
  - (b) Nifedipine
  - (c) Diuretics
  - (d) Clonidine
- 692. Marantic endocarditis has all following features except**
- (a) Paraneoplastic syndrome associated with adenocarcinoma of lung
  - (b) Embolic phenomena are common
  - (c) Encephalopathy
  - (d) Murmurs are often found
- 693. HDL-C reduced by all the drugs except**
- (a) Probucal
  - (b)  $\beta$ -blockers
  - (c) Aspirin
  - (d) Methyldopa
- 694. Commonest type of truncus arteriosus is**
- (a) Type I
  - (b) Type II
  - (c) Type III
  - (d) Type IV
- 695. Smoking cessation in women is most effective in improving life expectancy in which age**
- (a) 44 - 49
  - (b) 50 - 54
  - (c) 55 - 59
  - (d) 60 - 64
- 696. All are common congenital defects associated with corrected TGA**
- (a) PS
  - (b) VSD
  - (c) MR
  - (d) PDA
- 697. ECG is acute pericarditis becomes usually normal in what period**
- (a) 3 Days
  - (b) 7 Days
  - (c) 10 Days
  - (d) 2 Weeks
- 698. Pericarditis in ACS occurs in**
- (a) Transmural myocardial infarction
  - (b) Subendocardial myocardial infarction
  - (c) UA
  - (d) All the above

- 699. Single component of pericarditis has all following features except**
- (a) Rare
  - (b) In atrial fibrillation
  - (c) The early stage
  - (d) The resolving stage
- 700. In highest left atrial pressure in mitral stenosis is usually**
- (a) 10 mmHg
  - (b) 20 mmHg
  - (c) 25 mmHg
  - (d) 30 mmHg
- 701. In all following situations presystolic murmur in mitral stenosis may be absent except**
- (a) Short PR interval
  - (b) Atrial fibrillation
  - (c) Bradycardia
  - (d) LV dysfunction
- 702. In all following situations length of murmur of mitral stenosis is unreliable for severity except**
- (a) Tachycardia
  - (b) Bradycardia
  - (c) Low cardiac output
  - (d) Normal LV function
- 703. In all following conditions the S2 – OS interval in mitral stenosis is unreliable to predict its severity except**
- (a) Tachycardia
  - (b) Bradycardia
  - (c) AR
  - (d) TS
- 704. Commonest type of commissural pulmonary valve stenosis is**
- (a) Domed
  - (b) Tricuspid
  - (c) Bicuspid
  - (d) Dysplastic
- 705. All following are mechanism of opening snap in mitral stenosis except**
- (a) Thickening of valve
  - (b) Doming of valve in LV
  - (c) High LA pressure
  - (d) Hypotrophy of LV
- 706. Musical early diastolic murmurs of aortic regurgitation occurs in all the following except**
- (a) Infective endocarditis
  - (b) Syphilis
  - (c) Congenital
  - (d) None of these

**707. In all following situation the murmur of significant aortic regurgitation is short or not heard except**

- (a) Acute aortic regurgitation
- (b) Aortic regurgitation with pregnancy
- (c) Aortic regurgitation patients receiving vasodilators
- (d) Chronic severe aortic regurgitation

**708. Which is the commonest cause of secondary hypertension?**

- (a) Chronic renal disease
- (b) Primary aldosteronism
- (c) Coarctation of aorta
- (d) Oral contraceptives

**709. When pitch of murmur of mitral stenosis becomes high pitched?**

- (a) Associated mitral regurgitation
- (b) Associated aortic regurgitation
- (c) Calcified mitral stenosis
- (d) None of the above

**710. All following cyanotic congenital heart disease causes mid diastolic murmur in MA except**

- (a) Double outlet RV
- (b) Single ventricle
- (c) Eisenmenger syndrome
- (d) Truncus arteriosus

**711. All are causes of AR due to aortic root disease except**

- (a) Ankylosing spondylitis
- (b) Marfan's syndrome
- (c) Pseudoxanthoma elasticum
- (d) VSD with aortic regurgitation

**712. Most common form of pulmonary stenosis is**

- (a) Endovascular
- (b) Supravalvular
- (c) Pulmonary artery branch
- (d) Valvular

**713. All following are poor predictors of surgical outcome in aortic regurgitation except**

- (a) LVEF < 50 %
- (b) LV shortening fraction < 25 %
- (c) LV endsystolic diameter < 55 mm
- (d) LV end diastolic diameter > 75 mm

**714. Which is least common finding on echo in constrictive pericarditis?**

- (a) Pericardial calcification
- (b) Pericardial – thickening
- (c) Abnormal septal diastolic motion
- (d) Mildly enlarged atria

**715. All are common findings in constrictive pericarditis on echo except**

- (a) Constrictive doppler pattern of mitral and tricuspid valve inflow increased by inspiration
- (b) Left atrial hypertension
- (c) Abnormal pulmonary vein inflow pattern
- (d) Pericardial thickening

**716. Which of the following has most positive predictive value for diagnosis of cardiac tamponade?**

- (a) RA collapse
- (b) RV collapse
- (c) Both RA and RV collapse
- (d) Any collapse

**717. Most positive predictive value for detection of cardiac tamponade**

- (a) Abnormal venous flow
- (b) Abnormal venous flow + One Right heart chamber collapse
- (c) Abnormal venous flow and two cardiac chamber collapse

**718. RA collapse in cardiac tamponade has all following features except**

- (a) Most common and earliest
- (b) Occurs when IPP<sup>3</sup> 4 mmHg
- (c) Duration varies there 1/3 cardiac cycle
- (d) Occurs during early diastole

- 719. RV collapse in cardiac tamponade has all the feature except**
- (a) More specific
  - (b) Occurs at IPP  $\geq 10 \pm 4$  mmHg
  - (c) During late diastole
  - (d) Best seen RV anterior wall and infundibulum
- 720. Most common etiology of cardiac tamponade is**
- (a) Malignancy
  - (b) Uraemia
  - (c) Idiopathic
  - (d) Infarction
- 721. Commonest complication of mechanical prosthetic valve**
- (a) Thrombus
  - (b) Infarction
  - (c) Stenosis
  - (d) Pannus
- 722. Which is the rare finding in infective endocarditis?**
- (a) Fever
  - (b) Anaemia
  - (c) Polyarthritits
  - (d) Clubbing
- 723. Commonest complication of biological valve**
- (a) Thrombus formation
  - (b) Infarction
  - (c) Pannus
  - (d) Degeneration
- 724. Most common type of extracardiac L-R shunt is**
- (a) Aorta pulmonary window
  - (b) PDA
  - (c) Pulmonary arterio venous fistula
  - (d) Broncho pulmonary anastomosis
- 725. Ductus arteriosus usually closes**
- (a) With in 24 hours of both
  - (b) With in 48–72 hours of both
  - (c) Between 5–7<sup>th</sup> day
  - (d) After one week of birth
- 726. Q wave in mitral regurgitation are found in which etiological type**
- (a) Rheumatic
  - (b) Functional
  - (c) Ischaemic
  - (d) MVP

- 727. Most frequent feature of mitral regurgitation (chronic) on ECG is**
- (a) Atrial fibrillation
  - (b) LA enlargement
  - (c) LV hypertrophy
  - (d) RV hypertrophy
- 728. All are the risk factors for thromboembolism in valvular heart disease except**
- (a) Aortic valve disease
  - (b) Atrial fibrillation
  - (c) MV disease
  - (d) LVEF > 45 %
- 729. Rheumatic aortic stenosis has all following features except**
- (a) History of rheumatic fever (50 %)
  - (b) No ejection click
  - (c) Coexisting mitral valve disease common
  - (d) Post stenotic dilatation of aorta is common
- 730. Which is commonest arrhythmia found in congenitally corrected TGA?**
- (a) AV block
  - (b) BBB
  - (c) Ventricular preexcitation
  - (d) Atrial fibrillation
- 731. Which type of ventricular preexcitation is commonly found in Ebstein's disease?**
- (a) Type A
  - (b) Type B
  - (c) Type C
  - (d) Unclassified
- 732. Important causes of papillary muscle dysfunction are**
- (a) IHD
  - (b) Cardiomyopathy
  - (c) LV dilation
  - (d) Acute rheumatic fever
- 733. All are causes of rupture of chordae tendinae except**
- (a) Infective endocarditis
  - (b) MVP
  - (c) Marfan's syndrome
  - (d) Hypertension

- 734. Vegetation on echo has all following features except**
- (a) Usually valvular
  - (b) Irregular shape
  - (c) Attached to the proximal side of valve
  - (d) Motion dependent on valve motion
- 735. Most sensitive and specific test to defect LA thrombus**
- (a) Echo TTE
  - (b) Echo TEE
  - (c) CT
  - (d) Angiography
- 736. Size of vegetation most likely to embolize**
- (a) < 5 mm
  - (b) 5 - 7 mm
  - (c) 7 - 9 mm
  - (d) > 10 mm
- 737. All are echocardiographic signs of prosthetic valve dysfunction except**
- (a) Increased antegrade velocity across the valve
  - (b) Decreased valve area
  - (c) Increased regurgitant flow
  - (d) Decreased intensity of regurgitant signal
- 738. Jugular venous pressure is raised in all the following situations in ASD except**
- (a) With MV disease
  - (b) RVF
  - (c) Severe PAH
  - (d) PS
- 739. Biventricular hypertrophy is found in all the following conditions except**
- (a) DORV without PS
  - (b) Truncus arteriosus
  - (c) Pulmonary atresia with PDA
  - (d) Tricuspid atresia
- 740. Which congenital heart disease is with no ventricular enlargement?**
- (a) TOF
  - (b) Triology of fallots
  - (c) Pulmonary arterio-venous fistula
  - (d) Tricuspid atresia
- 741. MVP has all following feature except**
- (a) Chest pain
  - (b) Abnormal ECG

- (c) False positive exercise ECG
- (d) Nitrates relieve the pain

**742. Po<sub>2</sub> is decreased in all the following except**

- (a) Acute pulmonary edema
- (b) Acute pulmonary embolism
- (c) Cardiogenic shock
- (d) Stable angina

**743. Asymptomatic persons with following disease needs surgery except**

- (a) Cyanotic congenital heart disease
- (b) Coarctation of aorta
- (c) Large L-R shunt
- (d) Moderate mitral stenosis

**744. Patient presenting with signs of systemic congestion but deteriorates by diuretic which cardiac diagnosis is likely**

- (a) CHF
- (b) Constrictive pericarditis
- (c) Cor pulmonale
- (d) None of the above

**745. Commonest cyanotic congenital heart disease at birth is**

- (a) D-TGA
- (b) Fallots tetralogy
- (c) Eisenmenger's syndrome
- (d) Truncus arteriosus

**746. Commonest location of pulmonary stenosis is**

- (a) Valvular
- (b) Subvalvular
- (c) Supravalvular
- (d) Combination of (a) & (b)

**747. Normal pulmonary value area is**

- (a)  $1 \text{ cm}^2/\text{m}^2$
- (b)  $1.5 \text{ cm}^2/\text{m}^2$
- (c)  $2 \text{ cm}^2/\text{m}^2$
- (d)  $3 \text{ cm}^2/\text{m}^2$

**748. Which is last obstruction at pulmonary is required to have prominent 'a' wave in neck vein?**

- (a) Mild
- (b) Moderate
- (c) Severe
- (d) All of the above

**749. Hall mark of valvular pulmonary stenosis is**

- (a) ESM
- (b) P2 decrease
- (c) Ejection click heard in expiration & disappears with inspiration
- (d) Narrow split S2

**750. Murmur of supra-valvular pulmonary stenosis radiates commonly to**

- (a) Neck
- (b) Suprasternal notch
- (c) Axilla
- (d) Left sternal border

**751. In pulmonary valve stenosis at which gradient intervention is cleves not indicated**

- (a) 40 mmHg
- (b) 40-50 mmHg
- (c) 50-60 mmHg
- (d) < 25 mmHg

**752. Which is most common associated anomaly is**

- (a) Right aortic arch
- (b) Left superior venacava
- (c) ASD
- (d) Absent ductes arteriosus

**753. Most common cyanotic congenital heart disease is**

- (a) Eissenmenger's syndrome
- (b) Truncus arteriosis
- (c) Fallots tetralogy
- (d) Total anomalous pulmonary venous drainage

**754. Hypoxic spells in fallots commonly occurs**

- (a) < 1 months of age
- (b) < 1.5 month of age
- (c) > 2 month of age
- (d) > 3 years of age

**755. Hypoxic spells most often occurs**

- (a) In the morning
- (b) Noon lint
- (c) Evening
- (d) Night

**756. Which drug is given for prevention of hypoxic spell?**

- (a) Sodium bicarbonate

- (b) a - Adrenergic agonist
- (c) Propranolol
- (d) None of the above

**757. Wide and fixed splitting of S2 occurs in all the following cyanotic congenital heart disease except**

- (a) Reversed ASD
- (b) Total anomalous pulmonary venous connection
- (c) VSD of A-V canal type
- (d) Eisenmenger's complex

**758. Which tricuspid diastolic murmur is heard in rupture of sinus of valsalva?**

- (a) RV
- (b) RA
- (c) LA
- (d) LV

**759. When continuous murmur is not heard in which location of rupture of sinus of valsalva?**

- (a) RA
- (b) LA
- (c) LV
- (d) RV

**760. Significant aortic regurgitation with short murmur may occurs in all the following except**

- (a) Acute aortic regurgitation
- (b) Aortic regurgitation with hypotension
- (c) Aortic regurgitation with patient using vasodilators
- (d) Sinus bradycardia

**761. All are complication of TAPVD except**

- (a) Pulmonary vein stenosis after repair
- (b) SSS
- (c) Heart failure
- (d) Infective endocarditis

**762. All following complications may occurs in VSD except**

- (a) Infective endocarditis
- (b) Eisenmenger complex
- (c) LBBB
- (d) Aortic regurgitation

**763. Early systolic murmur are found in all following except**

- (a) Small muscular VSD
- (b) TR without PH
- (c) Acute mitral regurgitation
- (d) Large VSD without significant PAH

**764. Commonest conduction abnormality is infective endocarditis is**

- (a) I Degree AV Block
- (b) II Degree AV Block
- (c) III Degree AV Block
- (d) Bundle Branch Block

**765. Which pericardial syndrome is rare in renal disease?**

- (a) Pericarditis
- (b) Cardiac tamponade
- (c) Lax pericardial effusion
- (d) Constrictive pericarditis

**766. Most commonly used mechanical aortic valve prosthesis is**

- (a) Ball and cage
- (b) Tilting disc
- (c) Trileaflet
- (d) All of the above

**767. All following are cardiac complication to elective surgery except**

- (a) MI < 3 months
- (b) Heart failure
- (c) Severe aortic stenosis
- (d) RBBB with LAHB

**768. Depth of inverted T wave is constrictive pericarditis indicate**

- (a) Non specific
- (b) Presence of myocarditis
- (c) Degree of pericardial adherence to Myocardium
- (d) Drug induced

**769. Spontaneous closure of VSD most commonly occurs at which age**

- (a) By 2 years of age
- (b) By 5 years of age
- (c) By 8 years of age
- (d) By 10 years of age

**770. Loud A2 is found in VSD in all the following except**

- (a) Associated coarctation of aorta
- (b) Bicuspid aortic valve
- (c) TGA with VSD
- (d) PDA with VSD

**771. Commonest microorganism right sided endocarditis is**

- (a) S. Aureus
- (b) S. Epidermidis
- (c) Pseudomonas
- (d) Serratia

**772. Commonest cause of acute pericarditis is**

- (a) Viral/idiopathic
- (b) Bacterial
- (c) Fungal
- (d) Tuberculosis

**773. In which valve lesion statin may be given?**

- (a) Aortic stenosis
- (b) Mitral stenosis
- (c) Mitral regurgitation
- (d) PS

**774. Rare presentation of aortic stenosis is**

- (a) Sudden cardiac death
- (b) Angina
- (c) Dyspnea
- (d) Syncope

**775. Rib notching may occur in all the following except**

- (a) Co-arctation of aorta
- (b) Pulmonary atresia
- (c) Venacaval obstruction
- (d) PDA

**776. Pericardial thickening is found in which of the following**

- (a) Constrictive pericarditis
- (b) Endomyocardial fibrosis
- (c) Amyloid heart disease
- (d) Primary restrictive cardiomyopathy

**777. PDA murmur is**

- (a) Crescendo
- (b) Decrescendo
- (c) Crescendo-decrescendo
- (d) Severe intensity

**778. All are causes of central cyanosis in ASD except**

- (a) IVC to LA
- (b) Bradycardia
- (c) TS
- (d) Mitral stenosis

**779. Fallots triology has all following features except**

- (a) Giant 'a' wave in neck veins
- (b) Extreme RVH
- (c) RBB
- (d) Cyanotic attacks

**780. Fallots tetralogy has all following features except**

- (a) Right aortic arch
- (b) Cyanotic attack
- (c) Giant 'a' wave
- (d) Squatting

**781. Commonest cause of severe aortic regurgitation in young child**

- (a) Bicuspid valve
- (b) VSD with aortic valve prolapse
- (c) Infective endocarditis
- (d) Acute rheumatic fever

**782. Sudden severe aortic regurgitation is due to all following except**

- (a) Infective endocarditis
- (b) Ruptured aneurysm of sinus of valsalva
- (c) Acute rheumatic fever
- (d) All of the above

**783. Commonest cause of mild aortic regurgitation in adult is**

- (a) Hypertension
- (b) Maemia
- (c) Anaemia
- (d) Acute rheumatic fever

**784. All following congenital heart disease are well tolerated during pregnancy except**

- (a) Uncomplicated ASD
- (b) Pulmonary stenosis
- (c) Acyanotic ebstein's anomaly
- (d) Severe aortic stenosis

- 785. Which pulmonary vascular change is associated with irreversible pulmonary hypertension?**
- (a) Medial hypertrophy
  - (b) Intimal reaction
  - (c) Fibrotic intimal change
  - (d) Plexiform lesion
- 786. In hyperkinetic pulmonary hypertension the pulmonary artery systolic pressure usually does not exceed**
- (a) 30 mmHg
  - (b) 40 mmHg
  - (c) 50 mmHg
  - (d) 60 mmHg
- 787. Which sign suggest primary pulmonary hypertension?**
- (a) Does not change with respiration
  - (b) S2 is often single
  - (c) S1 is split
  - (d) S1 is vibratory
- 788. In which cause of eisenmenger syndrome S2 is single?**
- (a) Single atrium
  - (b) Reversed PDA
  - (c) Reversed ASD
  - (d) Reversed VSD
- 789. Commonest presenting symptom in ASD is**
- (a) Dyspnoea
  - (b) Palpitation
  - (c) Chest pain
  - (d) Edema
- 790. Myocardial bridging most commonly occurs in which coronary artery**
- (a) LAD
  - (b) Cx
  - (c) PDA
  - (d) RCA
- 791. Most common symptom in pulmonary hypertension is**
- (a) Dyspnoea
  - (b) Chest pain
  - (c) Syncope
  - (d) Pedal edema
- 792. Most common cause of porto- pulmonary hypertension is**
- (a) Liver disease
  - (b) Biliary atresia
  - (c) Extra hepatic portal veinobstruction
  - (d) Portal fibrosis

- 793. Commonest manifestation of acute rheumatic fever**
- (a) Arthritis
  - (b) Carditis
  - (c) Chorea
  - (d) Sub cutaneous nodules
- 794. All following congenital heart disease may be associated with atrial fibrillation except**
- (a) ASD
  - (b) Ebsteins anomaly
  - (c) TGA
  - (d) Fallots tetralogy
- 795. Most common cause of junctional escape beat is**
- (a) Sinus bradycardia
  - (b) AV block
  - (c) Reserpamia
  - (d) Hyperbalemia
- 796. Most common infiltrative corp is**
- (a) Amyloid
  - (b) Carcinoid
  - (c) Maetrachromatosis
  - (d) Sarcoidosis
- 797. Most common congenital heart associated with VSD**
- (a) Coarctation of aorta
  - (b) ASD
  - (c) PDA
  - (d) Mitral stenosis
- 798. Pericardial effusion is found in**
- (a) Acute myocarditis
  - (b) Chronic myocarditis
  - (c) Infiltrative cardiomyopathy
  - (d) All the above
- 799. Which is earliest auscultatory finding in mitral stenosis?**
- (a) Loud S1
  - (b) Mid diastolic murmur
  - (c) Presystolic murmur
  - (d) Opening snap
- 800. Which finding is found in both acute and chronic severe mitral regurgitation?**
- (a) LA enlargement
  - (b) LV enlargement

- (c) S3
- (d) Apical impulse displacement

**801. Commonest cause of constrictive pericarditis**

- (a) Idiopathic (b) Post CABG
- (c) Tuberculosis (d) Radiation

**802. Which storage disease of myocardium produces MVP?**

- (a) Fabrys disease
- (b) Glycogen storage disease
- (c) Gaucher disease
- (d) Sterters syndrome

**803. ECG frontal plane axis is normal in all the following except**

- (a) ASD OS (b) APVD complete
- (c) APVD partial (d) Common atrium

**804. All are hallmark of significant prosthetic valve haemolysis except**

- (a) Hemosiderosis
- (b) Shistocytosis
- (c) Reticulocytosis
- (d) Increased heptoglobin

**805. Cyanotic Infant in ECG Shows all the following except**

- (a) 'P' congenital (b) LAD
- (c) LVH (d) 'P' mitrate

**806. Aortic stenosis as choff nodule consist of all except**

- (a) Fibrinoid necrosis (b) Lymphocytes
- (c) Neutrophills (d) Macrophages

**807. Most common cause of rheumatic mitral stenosis is**

- (a) Commissural fusion
- (b) Leaflet fusion
- (c) Fusion of chordae (d) Combined

**808. Mitral annular calcification is seen in all except**

- (a) Marfan's syndrome
- (b) Hurler's syndrome
- (c) Mitral valve prolapse
- (d) Rheumatic

**809. Symptom of pulmonary venous hypertension occurs at which MVA**

- (a) 2 cm<sup>2</sup>                      (b) 1.5 cm<sup>2</sup>  
(c) 2.5 cm<sup>2</sup>                    (d) ≤ cm<sup>2</sup>

**810. Which ECG change is not found in acute pericarditis?**

- (a) ST segment deviation  
(b) T wave changes  
(c) Voltages changes  
(d) Q wave development

**811. Major complication of infective endocarditis is**

- (a) Heart failure              (b) Renal failure  
(c) Embolism                  (d) Meningitis

**812. Most common pericardial disease is**

- (a) Pericarditis  
(b) Pericardial effusion  
(c) Effusive constrictive pericarditis  
(d) Constrictive pericarditis

**813. Usually Chordal Rupture is due to**

- (a) Idiopathic degenerative  
(b) Rheumatic  
(c) Endocarditis (infective)  
(d) MVP

**814. Bilateral bulging of anterior chest with bulging of upper 2/3 of sternum is commonly found in children with**

- (a) ASD                          (b) Large VSD  
(c) PDA                          (d) PS

**815. L+ 4<sup>th</sup> & 5<sup>th</sup> ICS bulging in adult commonly seen is**

- (a) ASD                          (b) VSD  
(c) Ebstein's disease      (d) None of the above

**816. Underdeveloped musculature of lower extremities is commonly found in**

- (a) PDA  
(b) AS  
(c) Coarctation of aorta  
(d) Aortic aneurysm

- 817. Which congenital heart is associated as part of syndrome with thrombocytopenia?**
- (a) OSASD
  - (b) VSD
  - (c) PDA
  - (d) Coarctation of Aorta
- 818. Stenosis of large arteries occurs with all except**
- (a) Supravalvular aortic stenosis
  - (b) Subvalvular aortic stenosis
  - (c) Neuro fibromatosis
  - (d) Rubella syndrome
- 819. Murmur of aortic regurgitation is uncommon in**
- (a) Congenital valvular aortic stenosis
  - (b) Acquired valvular aortic stenosis
  - (c) Congenital subvalvular aortic stenosis
  - (d) HOCM
- 820. Which supraventricular tachycardia occurs in L-TGA?**
- (a) Atrial tachycardia
  - (b) Sinus node re-entrant tachycardia
  - (c) AVRT
  - (d) AVNRT
- 821. Sudden cardiac death is more common in which congenital heart disease?**
- (a) Congenital aortic stenosis
  - (b) Congenital PS
  - (c) ASD
  - (d) VSD
- 822. All following congenital heart disease sudden cardiac death except**
- (a) Fallot's tetralogy
  - (b) Aortic stenosis
  - (c) Ebstein's disease
  - (d) VSD
- 823. Commonest complication of MVP**
- (a) Rupture of chords
  - (b) Infective endocarditis
  - (c) Mitral regurgitation
  - (d) Fibrosedeposition

**824. Commonest cause of tricuspid valve disease**

- (a) Rheumatic
- (b) Ebstein's
- (c) Carcinoid
- (d) Infective endocarditis

**825. Commonest cause of pulmonary valve disease**

- (a) Congenital
- (b) TOF
- (c) Carcinoid
- (d) Rheumatic

**826. What is dominant mechanism of rheumatic mitral regurgitation?**

- (a) Thickening
- (b) Retraction
- (c) Rupture of chord
- (d) Destructive lesion

**827. Dominant mechanism of mitral regurgitation of marfan's syndrome**

- (a) Thicking
- (b) Prolapse
- (c) Rupture chords
- (d) Dilatation of anrialoop

**828. Dominant mechanism of ischemic/hypertensive mitral regurgitation is**

- (a) Ruptured papillary muscle
- (b) Ruptured chord
- (c) Prolapse
- (d) Destructive lesion

**829. Dominant mechanism of mitral regurgitation is dilated cardiomyopathy is**

- (a) Annular dilatation
- (b) Prolapse
- (c) Papillary muscle rupture
- (d) Thickening

**830. Dominant mechanism in restrictive CMP of mitral regurgitation**

- (a) Thickening
- (b) Annular dilatation
- (c) Leaflet prolapse
- (d) Chordal rupture

**831. Dominant mechanism of mitral regurgitation in infective endocarditis is**

- (a) Destruction of valve
- (b) Thickening of valve
- (c) Prolapse of valve
- (d) Retraction of valve

- 832. What is mechanism of congenital mitral regurgitation?**
- (a) Thickening (b) Retraction  
(c) Prolapse (d) Cleft
- 833. Most frequent feature of mitral regurgitation is**
- (a) Atrial fibrillation (b) Heart failure  
(c) LVH (d) LAE
- 834. Which agent produces pericardial lesions?**
- (a) Emetine (b) Methysergide  
(c) Chloroquine (d) Lithium
- 835. All following changes occurs in acute pericarditis except**
- (a) ST Segment elevation  
(b) T wave inversion  
(c) Reciprocal ST changes don't occurs  
(d) PR segment is elevated
- 836. What hand deformity may occurs in rheumatic heart disease?**
- (a) Ulnar deviation of 4<sup>th</sup> finger  
(b) Ulnar deviation of 5<sup>th</sup> finger  
(c) Flexion of metacarpophacangeal joints  
(d) All the above
- 837. Which size of VSD closes often spontaneously?**
- (a) < 0.5 mm  
(b) 5 – 10 mm  
(c) 10 – 15 mm  
(d) < 2 cm > 1.5 cm
- 838. Dilatation of SVC occurs in which type of ASD?**
- (a) ASD OS (b) ASD OP  
(c) ASD SV (d) All of the above
- 839. Commonest type of VSD is**
- (a) Perimembranous (b) Inlet  
(c) Trabecular (d) Outlet
- 840. Infective endocarditis occurs in which type of ASD?**
- (a) ASD (OS) (b) ASD (OP)  
(c) ASD (SV) (d) All the above

- 841. Which type of ASD is associated with inverted 'P' waves in inferior leads?**
- (a) ASD (OS)                      (b) ASD (OP)  
(c) ASD (SV)                      (d) All of the above
- 842. All are signs of severe pulmonary valve stenosis except**
- (a) Small volume pulse  
(b) Long late peaking murmur  
(c) P2 absent  
(d) Giant 'a' wave in neck veins
- 843. All are complications of pulmonary valve stenosis except**
- (a) RVF  
(b) Infective endocarditis  
(c) Sudden cardiac death  
(d) Pulmonary infarction
- 844. Intermittent cyanosis is risk in which condition**
- (a) Fallot's tetralogy    (b) Tricuspid atresia  
(c) PFO                      (d) Ebstein's disease
- 845. Which cyanotic congenital heart disease produces syncope?**
- (a) Tricuspid atresia    (b) TGA  
(c) Fallot's tetralogy    (d) TAPVD
- 846. Anabolic steroid can lead to all the following except**
- (a) Decrease HDL  
(b) Hypertension  
(c) Clothing abnormalities  
(d) Increase LDL
- 847. All following cyanotic congenital cardiac disease is associated with decreased pulmonary flow except**
- (a) TOF                      (b) DORV with PS  
(c) ASD with PS            (d) TGA
- 848. Most consistent feature of idiopathic dilatation of pulmonary trunk is**
- (a) Ejection sound better heard in expiration  
(b) Ejection sound better heard in inspiration

- (c) Systolic ejection murmur
- (d) Variable S2

**849. All following are features of heart sound in Ebstein anomaly are correct except**

- (a) Wide split
- (b) Second component is more loud
- (c) Split S2 wide and fixed
- (d) S3 is uncommon

**850. What happens to pulmonary artery pressure in pulmonary trunk pulmonary artery branch stenosis?**

- (a) Only systolic pressure rises
- (b) Only diastolic pressure rises
- (c) Both pressure rises
- (d) Both are none

**851. Which is commonest arrhythmia in constrictive pericarditis?**

- (a) Premature atrial ectopic
- (b) SSS
- (c) Atrial fibrillation
- (d) AV block

**852. All are features of dysplastic pulmonary valve except**

- (a) Obstructive thickened immobile cusps
- (b) No click
- (c) Post stenotic dilatation not prominent
- (d) P2 soft

**853. Hemoptysis is important feature of**

- (a) Aortic pulmonary stenosis
- (b) Dysplastic pulmonary stenosis
- (c) Infundibular pulmonary stenosis
- (d) Pulmonary artery branch stenosis

**854. Commonest cause of chronic pericardial effusion**

- (a) Viral
- (b) Bacterial
- (c) Connective tissue disease
- (d) Myxaedema

- 855. Cyanotic congenital heart disease, no ventricular enlargement, no abnormal sound/murmur/X-ray and ECG are normal, likely diagnosis**
- (a) Pulmonary arterio venous fistula
  - (b) Fallots tetralogy
  - (c) Ebstein's disease
  - (d) Isolated drainage of vena-cava in to left atrium
- 856. Acute severe aortic regurgitation on auscultation all the following alternation in heart sounds except**
- (a) S1 soft absent
  - (b) A2 soft
  - (c) S4 absent
  - (d) S3 uncommon
- 857. Which is commonest anatomic type of cortria-trium?**
- (a) Diaphragmatic
  - (b) Hour glass
  - (c) Tubular
  - (d) All of the above
- 858. Acute severe aortic regurgitation reveals all the following except**
- (a) Aortic systolic £ 3/6
  - (b) Aortic regurgitation murmur short medium pitched
  - (c) Austin flint murmur presystolic
  - (d) Peripheral signs absent
- 859. Least common anatomic type of cortria-trium is**
- (a) Tubular
  - (b) Hour glass
  - (c) Diaphragmatic
  - (d) All of the above
- 860. X-ray findings in acute severe aortic regurgitation show all the following except**
- (a) Left ventricular is round sized
  - (b) Left ventricle is markedly dilated
  - (c) Aortic root usually normal
  - (d) Pulmonary venous vascularity increased
- 861. Arterial pulse in acute severe aortic regurgitation inhibitors all the following except**
- (a) Rate rise not increased
  - (b) Pulse pressure needy none

- (c) Single contour of pulse
- (d) Pulses alternans uncommon

**862. Cor triatriatum reveals all following features except**

- (a) S1 is not loud
- (b) Pulmonary hypertension is present
- (c) RVH occurs
- (d) Atrial fibrillation common

**863. Acute severe aortic regurgitation is characterized by all the following except**

- (a) Early and sudden heart failure
- (b) LV impulse in hyperdynamic
- (c) Normal voltage ECG
- (d) Major depolarization changes in ECG

**864. All following are enlarged on X-ray except**

- (a) RA
- (b) RV
- (c) Pulmonary trunk
- (d) LA

**865. X-ray in chronic severe aortic regurgitation reveals all the following except**

- (a) LV massively enlarged
- (b) Aortic root prominent
- (c) Aortic arch is prominent
- (d) Pulmonary vascularity is increased

**866. Commonest type of congenital mitral stenosis is**

- (a) Typical
- (b) Parachute MV
- (c) Anomalom mitral arched
- (d) Accessory mitral valve tissue

**867. Pseudoaortic has all the following features except**

- (a) Buckling/kinking of aorta at or just beyond ligamentum arteriosus
- (b) Elongation/dilatation/tortousity of distal aortic arch and proximal descending aorta
- (c) No narrowing of aortic lumen
- (d) Always benign condition and not associated with any complication

- 868. Which of the following does not occur in congenital mitral stenosis?**
- (a) RVH
  - (b) Dyspnea
  - (c) Pulmonary arterial hypertension
  - (d) Hemoptysis
- 869. All following signs are infrequent in congenital mitral stenosis except**
- (a) Loud S1
  - (b) OS
  - (c) Diastolic murmur
  - (d) RV enlargement
- 870. Which shunt lesions is associated with coarctation of aorta?**
- (a) ASD
  - (b) VSD
  - (c) PDA
  - (d) None of these
- 871. Which is not found in congenital mitral stenosis?**
- (a) Pulmonary venous congestion
  - (b) Pulmonary arterial hypertension
  - (c) Left atrial enlargement
  - (d) MV calcification
- 872. Collateral arterial pulsations in coarctation of aorta are found in all following locations except**
- (a) Around and between septal
  - (b) Around shoulder
  - (c) Right sternal border
  - (d) Pulmonary area
- 873. All statement regarding notching of ribs in coarctation of aorta are correct except**
- (a) Results from collateral flow through posterior intercostal arteries
  - (b) Notches originates in costal groove rather than on the most inferior rib in angina
  - (c) Occurs on posterior ribs
  - (d) Occurs on anterior ribs
- 874. All following are complication of coarctation of aorta except**
- (a) Hypertension encephalopathy
  - (b) Heart failure

- (c) Infective endocarditis
- (d) Rupture/dissection of Aorta

**875. Incidences of toxemia of pregnancy is lowest in which type of hypertension?**

- (a) Essential hypertension
- (b) Renal hypertension
- (c) Endocranial hypertension
- (d) Co-arctation of aorta

**876. Arterial pulse in chronic severe aortic regurgitation reveals all the following except**

- (a) Rate of rise is increased
- (b) Pulse pressure is increased
- (c) Contour of peak may be bisferiens
- (d) Pulsus alternans is common

**877. Chronic severe aortic regurgitation shows all the following except**

- (a) Late and insidious heart failure
- (b) LV apex displaced and hyperdynamic
- (c) LV voltages are increased
- (d) No significant repolarization changes in ECG

**878. Chronic severe aortic regurgitation is associated with alterations in heart sounds except**

- (a) S1 is normal
- (b) A2 normal/decreased
- (c) P2 is normal
- (d) S3 is common

**879. Which following is not found in congenital pulmonary vein stenosis?**

- (a) P2 Loud
- (b) MDM
- (c) RVH
- (d) PSM of TR

**880. Which of statement is incorrect regarding murmurs in chronic severe acute regurgitation?**

- (a) Aortic systolic murmur  $\geq$  3/6
- (b) EDM high pitched
- (c) Peripheral signs are present
- (d) Mid diastolic murmur with presystolic accentuation is present

**881. ECG in pulmonary vein stenosis slows all the following except**

- (a) RAD
- (b) RVH
- (c) 'P' pulmonale
- (d) 'P' mitrale

**882. All following are indications of surgery in native valve endocarditis except**

- (a) Haemodynamic deterioration
- (b) Myocardial abscess
- (c) Medical treatment failure relapse after adghate treatment
- (d) New regurgitant murmur without haemodynamic detonation

**883. All are definite indication of surgery in prosthetic valve endocarditis except**

- (a) Haemodynamic deterioration
- (b) Myocardial abscess
- (c) Fungal endocarditis
- (d) Large vegetation on echo

**884. Commonest complication of prosthetic valve endocarditis**

- (a) Valve ring abscess
- (b) Myocardial abscess
- (c) Valve obstruction by vegetation
- (d) Purulent pericarditis

**885. Most uncommon complication of prosthetic valve endocarditis**

- (a) Ring abscess
- (b) Myocardial abscess
- (c) Valve obstruction by vegetation
- (d) Purulent vericarditis

**886. All following are the features of marantic thrombotic endocarditis except**

- (a) Murmurs are found
- (b) Embolism occurs
- (c) Culture negative
- (d) Occurs as complication of chronic disease

**887. All are features of fungal endocarditis except**

- (a) Myocardial abscess
- (b) Large systemic embolism
- (c) High mortality
- (d) Medical therapy usually successful

**888. Brucella endocarditis involves which valve**

- (a) Mitral
- (b) Aortic
- (c) Pulmonary
- (d) All the above

**889. Most common form of renal involvement in infective endocarditis is**

- (a) Immune complex glomerulonephritis
- (b) Focal glomerulonephritis
- (c) Renal embolism
- (d) Pyelonephritis

**890. Which cardiac structure is rarely involved in infective endocarditis?**

- (a) Myocardium rarely
- (b) Conduction tissue
- (c) Valves
- (d) Pericardium

**891. Commonest skin lesion in infective endocarditis is**

- (a) Petechial rash
- (b) Splinter haemorrhage
- (c) Osler nodes
- (d) Janeway's lesion

**892. All are features of tricuspid stenosis except**

- (a) Mid diastolic murmur
- (b) Split S1
- (c) Loud P2
- (d) High frequency murmur

**893. All following disease have definite association with MVP except**

- (a) Connective tissue disorders
- (b) (OS) ASD
- (c) Ebstein's disease
- (d) HCM

**894. Chick is increased by manouvers in MVP except**

- (a) Standing and inspiration
- (b) Strain phase of valsalva
- (c) Amyl nitrite inhalation
- (d) Squatting

- 895. Following skeletomuscular abnormalities occurs in mitral valve prolapse except**
- (a) High arched palate
  - (b) Pectus excavatum
  - (c) Straight back syndrome
  - (d) Gynecomastia
- 896. Mitral annular calcification is found in all except**
- (a) Hypertension
  - (b) DM
  - (c) HCM
  - (d) Myxedema
- 897. All are common major risk factor in for VTE except**
- (a) Malignancy
  - (b) Major trauma
  - (c) Paralysis
  - (d) Heparin induced thrombocytopenia
- 898. Central cyanosis with pulmonary oligemia is found in all following conditions except**
- (a) Fallot's tetralogy
  - (b) Pulmonary
  - (c) Tricuspid atresia
  - (d) TGA
- 899. Subcutaneous nodule in acute rheumatic fever have all the features except**
- (a) Firm
  - (b) Tender
  - (c) Mobile
  - (d) On extensor surfaces of body
- 900. Involvement of MV in non rheumatic heart disease has all the following features except**
- (a) Mitral stenosis is absent
  - (b) Sub valvular apparatus involvement is common
  - (c) Calcification rare
  - (d) Annular involvement absent
- 901. Papillary Dysfunction occurs in all the following except**
- (a) IHD
  - (b) LV Dilation
  - (c) Cardiomyopathy
  - (d) Infective endocarditis
- 902. All are features of congenital aortic stenosis**
- (a) No History of RF

- (b) Ejection click is present
- (c) Aortic regurgitation is absent
- (d) MVD is absent

**903. Rheumatic aortic stenosis has all the following features except**

- (a) History of RF in 50 %
- (b) Ejection click absent
- (c) Aortic regurgitation absent
- (d) Post stenotic aortic dilation is not prominent

**904. Commonest cause of TR**

- (a) Functional to PH
- (b) Carcinoid
- (c) Infective endocarditis
- (d) Rheumatic

**905. Sinequanon for diagnosis of infective endocarditis is**

- (a) Blood culture
- (b) Echo
- (c) Increase ESR
- (d) Hematuria

**906. The common presentation of right sided endocarditis is**

- (a) Pneumonia
- (b) Emphysema
- (c) Lung abscess
- (d) Uremia

**907. Coronary arteriovenous fistula exhibits all the following except**

- (a) Continuous murmur over precordium
- (b) 90 % of coronary artery fistula drainage in to the right heart
- (c) Left coronary artery is more commonly involved
- (d) Infection endocarditis may occurs

**908. All following congenital heart disease produce RBBB except**

- (a) PS
- (b) ASD
- (c) VSD
- (d) PDA

**909. Ebsteins occurs in offspring of patient using which drug**

- (a) Alcohol
- (b) Thalidomide
- (c) Lithium
- (d) Phenytoin

**910. ASD occurs in all the following except**

- (a) TAR
- (b) Down's syndrome
- (c) Holtoram
- (d) Pseudoxanthoma elasticum

**911. Compression of Large A-V fistula causes**

- (a) Sinus tachycardia (b) Premature VE
- (c) Atrial fibrillation (d) Sinus bradycardia

**912. Hilair dance on fluoroscopy is seen in**

- (a) ASD (b) VSD
- (c) PH (d) PDA

**913. Constrictive pericarditis occurs in all the following except**

- (a) Radiation (b) Neoplastic
- (c) Tuberculosis (d) Rheumatic

**914. All following cardiac lesion in which IE prophylaxis is not indicated except**

- (a) Isolated secondary ASD
- (b) CABG
- (c) Cardiac pacemakers
- (d) MVP with mitral regurgitation

**915. All following procedures don't need prophylaxis of infective endocarditis except**

- (a) Endotracheal incubation
- (b) Transesophageal echo
- (c) Bronchoscopy with flexible bronchoscope
- (d) Cystoscopy

**916. Shunt reversal in VSD occurs in**

- (a) 10 % (b) 5 %
- (c) 20 % (d) 25 %

**917. The characteristic ECG findings in tricuspid atresia are all the following except**

- (a) RA enlargement (b) LA enlargement
- (c) LAD (d) LVH

**918. Embolic complications maximally occurs when after development atrial fibrillation in mitral stenosis**

- (a) < 1 years (b) 1-2 years
- (c) 2-3 years (d) > 3 years

- 919. At what levels of systolic pulmonary artery pressure the TR is functional**
- (a) 30 mmHg                      (b) 40 mmHg  
(c) 50 mmHg                      (d) > 55 mmHg
- 920. Most common valvular lesion produces by radiation is**
- (a) Aortic stenosis  
(b) Atrial regurgitation  
(c) Aortic stenosis + Aortic regurgitation  
(d) Mitral regurgitation
- 921. Which valvular heart disease is associated with prolonged QT interval?**
- (a) Mitral stenosis  
(b) Mitral regurgitation  
(c) TS  
(d) MVP
- 922. What is severe PAH?**
- (a) > 25 % systemic pressure  
(b) 50 % systemic pressure  
(c) 70 % systemic pressure  
(d) 75 % systemic pressure
- 923. Frequency of embolic events in mitral stenosis does not relate to all following except**
- (a) Atrial fibrillation  
(b) Cardiac output  
(c) Size of LA  
(d) Severity of mitral stenosis
- 924. Mitral in elderly (> 65 years) has all the following features except**
- (a) Heavy calcification and fibrosis  
(b) Success rate of percutaneous vulroformy is similar as that in young  
(c) Procedural mortality is high  
(d) More frequent complications
- 925. Which finding is usually not found in mild mitral stenosis on M-mode echo?**
- (a) Flat EF stope  
(b) Decrease excursion  
(c) Paradoxical movement of post leaflet  
(d) Density of leaflets not markedly increased

**926. Following are low frequency signs in IE except**

- (a) New or changing murmur
- (b) Retinal lesion
- (c) Renal failure
- (d) Splenomegaly

**927. Following are the high frequency signs in IE except**

- (a) Murmur
- (b) Skin lesion
- (c) Petechiae
- (d) Splinter haemorrhage

**928. All following are features of acute infective endocarditis except**

- (a) Shaking chills
- (b) Leukocytosis
- (c) Increased gamma globulin
- (d) Positive rheumatoid factor

**929. All are complication of TAPVD except**

- (a) Pulmonary vein stenosis after repair
- (b) SSS
- (c) Heart failure
- (d) Infective endocarditis

**930. All following complications may occur in VSD except**

- (a) Infective endocarditis
- (b) Eisenmenger complex
- (c) LBBB
- (d) Aortic regurgitation

**931. Commonest association of atrial septal aneurysm is with**

- (a) ASD
- (b) PFO
- (c) Mitral stenosis
- (d) Mitral regurgitation

**932. Which is rare pericardial syndrome complication renal failure?**

- (a) Pericarditis
- (b) Pericardial effusion
- (c) Cardiac tamponade
- (d) Constrictive pericarditis

- 933. Peak flow velocity in tricuspid stenosis (Severe) is**
- (a) 0.8 m/sec                      (b) 1.2 m/sec  
(c) 1.6 m/sec                      (d) 1.8 m/sec
- 934. S2 is single in which of the cause of Eisenmenger's syndrome?**
- (a) TGA                              (b) Single ventricle  
(c) DORV                            (d) PDA
- 935. Infective endocarditis is rare in which of the following disease with age < 60 years?**
- (a) Rheumatic heart disease  
(b) MVP  
(c) Degenerative heart disease  
(d) Congenital heart disease
- 936. Commonest heart disease for infective endocarditis in patients > 60 years age**
- (a) Degenerative heart disease  
(b) MVP  
(c) Rheumatic heart disease  
(d) Congenital heart disease
- 937. Commonest complication of biologic prothetic valve**
- (a) Thrombus                      (b) Infection  
(c) Pannus                        (d) Degeneration
- 938. Commonest complication of mechanical valve**
- (a) Infection                      (b) Stenosis  
(c) Pannus                        (d) Thrombosis

**ANSWERS**

1. (c)    2. (a)    3. (d)    4. (b)    5. (d)  
6. (b)    7. (c)    8. (c)    9. (a)    10. (d)  
11. (a)    12. (a)    13. (c)    14. (c)    15. (b)  
16. (c)    17. (a)    18. (d)    19. (a)    20. (d)  
21. (d)    22. (d)    23. (a)    24. (b)    25. (c)  
26. (c)    27. (a)    28. (a)    29. (c)    30. (b)  
31. (c)    32. (d)    33. (d)    34. (a)    35. (d)  
36. (a)    37. (b)    38. (b)    39. (b)    40. (d)  
41. (d)    42. (b)    43. (c)    44. (d)    45. (b)  
46. (c)    47. (a)    48. (a)    49. (b)    50. (a)  
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851. (c) 852. (d) 853. (d) 854. (d) 855. (d)  
856. (d) 857. (a) 858. (c) 859. (a) 860. (b)

861. (d) 862. (d) 863. (d) 864. (d) 865. (d)  
866. (a) 867. (d) 868. (d) 869. (d) 870. (a)  
871. (d) 872. (d) 873. (d) 874. (a) 875. (d)  
876. (d) 877. (d) 878. (d) 879. (b) 880. (d)  
881. (d) 882. (d) 883. (d) 884. (a) 885. (d)  
886. (c) 887. (d) 888. (b) 889. (a) 890. (d)  
891. (a) 892. (c) 893. (c) 894. (d) 895. (d)  
896. (d) 897. (d) 898. (d) 899. (b) 900. (d)  
901. (d) 902. (c) 903. (d) 904. (a) 905. (a)  
906. (d) 907. (c) 908. (d) 909. (c) 910. (d)  
911. (d) 912. (a) 913. (d) 914. (d) 915. (d)  
916. (d) 917. (b) 918. (a) 919. (d) 920. (c)  
921. (d) 922. (d) 923. (a) 924. (b) 925. (c)  
926. (d) 927. (d) 928. (c) 929. (d) 930. (c)  
931. (b) 932. (d) 933. (d) 934. (d) 935. (c)  
936. (a) 937. (d) 938. (d)

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## SECTION-6

### MISCELLANEOUS

1. **Renal artery embolism is characterized by**
  - (a) Flank pain
  - (b) Haematuria
  - (c) Hypertension
  - (d) All the above
2. **Potassium rich food include all except**
  - (a) Watermelon
  - (b) Guava
  - (c) Banana
  - (d) Tomato
3. **Which is the best drug for patients of seizures in eclampsia?**
  - (a) Phenytoin
  - (b) Barbiturates
  - (c) Magnesium
  - (d) Diazepam
4. **Highest fetal and maternal mortality occurs during pregnancy in which of the following cardiac condition?**
  - (a) HCM
  - (b) Acyanotic ebsteins anomaly
  - (c) Severe aortic stenosis
  - (d) Pulmonary stenosis
5. **All the following occurs physiological during pregnancy except**
  - (a) Increased blood volume
  - (b) Heart rate is increased
  - (c) Pulse pressure is decreased
  - (d) Cardiac output increases
6. **All of the following cardiac complications are associated with sleep apnea except**
  - (a) Pulmonary hypertension
  - (b) Right ventricular failure
  - (c) Systemic hypertension
  - (d) Hypertrophic cardiomyopathy

- 7. Left atrial myxoma is characterized by all except**
- (a) Marked constitutional symptoms
  - (b) History of syncope
  - (c) Large left atrium
  - (d) Tumour plop
- 8. Which is the least common manifestation of left atrial myxoma?**
- (a) Embolism
  - (b) Anorexia
  - (c) Weight loss
  - (d) Hemoptysis
- 9. All following hematological disorders are associated with myocardial infarction except**
- (a) Polycythemia rubra vera
  - (b) Thrombocytopenia
  - (c) DIC
  - (d) Aplastic anemia
- 10. Most common cause of cardiac death in chronic renal failure is**
- (a) Heart failure
  - (b) Myocardial infarction
  - (c) Pericardial effusion
  - (d) Constrictive pericarditis
- 11. Smaller than average heart is found in all the following except**
- (a) COPD
  - (b) Addison disease
  - (c) Anorexia nervosa
  - (d) Acute mitral regurgitation
- 12. Hamman's sign has all the following features except**
- (a) Indicates air in mediastinum
  - (b) Commonly occurs following cardiac surgery
  - (c) Related to both heart beat and respiration
  - (d) It is short ejection murmur
- 13. Which cardiac chamber hypertrophy occurs in freidrichs ataxia?**
- (a) RA hypertrophy
  - (b) LA hypertrophy
  - (c) RV hypertrophy
  - (d) LV hypertrophy

- 14. Most Common ECG finding in myotonic dystrophy is**
- (a) 1 degree AV block
  - (b) RBBB
  - (c) LBBB
  - (d) Sinus bradycardia
- 15. Most distinctive cardiac abnormality in facioscapulohumeral myopathy is**
- (a) Valve regurgitation
  - (b) Coronary artery disease
  - (c) Myocardial infarction
  - (d) Atrial paralysis
- 16. Which cardiac manifestation is rare in myxedema?**
- (a) Bradycardia
  - (b) Pericardial effusion
  - (c) Hypertension
  - (d) Heart failure
- 17. Most common arrhythmia in hyperthyroidism is**
- (a) Resting sinus tachycardia
  - (b) Atrial fibrillation
  - (c) Atrial ectopics
  - (d) PVCs
- 18. All following cardiovascular diseases are related to pregnancy except**
- (a) Dilated cardiomyopathy
  - (b) Pulmonary embolism
  - (c) Systemic hypertension
  - (d) Pulmonary hypertension
- 19. Physiological hemodynamic changes during pregnancy in 1st trimester includes all except**
- (a) Increase systolic blood pressure
  - (b) Increase diastolic blood pressure
  - (c) Increase cardiac output
  - (d) Increase stroke volume
- 20. Diastolic blood pressure is decreased most in which trimester of pregnancy?**
- (a) Ist
  - (b) IInd
  - (c) IIIrd
  - (d) In all similar fall

- 21. All cardiac complication occur in sleep apnea except**
- (a) Nocturnal arrhythmia
  - (b) Pulmonary hypertension
  - (c) Right ventricular failure
  - (d) Valvular heart disease
- 22. Cardiac encephalopathy with normal renal hepatic pulmonary and furation electrolyte is due to**
- (a) Decrease brain perfusion due to decrease cardiac output
  - (b) High central venous pressure
  - (c) Intravaniel fluid retention
  - (d) All the above
- 23. Which of the following is not found in left atrial myxoma?**
- (a) Anemia
  - (b) Thrombocytosis
  - (c) Increased ESR
  - (d) Leucocytosis
- 24. All the following features are present in left atrial myxoma except**
- (a) Mid diastolic murmur
  - (b) Mitral regurgitation murmur
  - (c) Opening snap
  - (d) Positional syncope
- 25. Definitive diagnosis of left atrial myxoma is made by**
- (a) X-ray
  - (b) Clinical
  - (c) Echocardiography
  - (d) Ventricular angiography
- 26. Which is the commonest type of left ventricular tumor?**
- (a) Myxoma
  - (b) Fibroma
  - (c) Rhabdomyoma
  - (d) None of the above
- 27. Thyrotoxicosis may cause all the following cardiac features except**
- (a) Ejection systolic murmur in pulmonary area
  - (b) S<sub>3</sub>
  - (c) Mid diastolic murmur in mitral area
  - (d) Mitral regurgitation

- 28. Best position to treat air embolism is**
- (a) Supine position
  - (b) Right lateral position
  - (c) Head up position
  - (d) Left lateral and head down position
- 29. Which of the following is characteristic of fat embolism?**
- (a) Hemoptysis
  - (b) Cyanosis
  - (c) Convection
  - (d) Stem patchiest
- 30. In elderly persons which is a true statement?**
- (a) LV stiffness increases due to increased thickness and fibrous tissue
  - (b) LV wall thickness preserves ventricular performance in early stages
  - (c) Bar reflex arch has heightened sensitivity
  - (d) B receptor sensitivity is increased
- 31. In normal age related changes all are true except**
- (a) Diastolic dysfunction is frequent as seen in doppler studies
  - (b) Endocardium appears highly refractile in echocardiographic studies
  - (c) With exercise heart rate rises markedly compared to younger subjects
  - (d) Maximum O<sub>2</sub> consumption is decreased
- 32. All are contra indicated in goitrous hypothyroidism except**
- (a) Cauliflower
  - (b) Rapeseed
  - (c) Drum stick
  - (d) Cabbage
- 33. Levothyroxine is used as single daily dose because**
- (a) It is very toxic drug
  - (b) Its half-life is long
  - (c) Repeated use may disturb sleep
  - (d) More than one use per may be associated with hyper defaecation
- 34. While treating hypothyroid with angina pectoris, one should start with Eltroxin**
- (a) 25 µg
  - (b) 50 µg
  - (c) 75 µg
  - (d) 100 µg

- 35. Decreased peripheral conversion of  $T_4$  to  $T_3$  is associated with all except**
- (a) Dexamethasone (b) Amiodarone  
(c) Enalapril (d) Propranolol
- 36. Decreased thyroxine binding globulin is seen in all except**
- (a) Pregnancy (b) Nephrosis  
(c) Acromegaly (d) Chronic hepatitis
- 37. A subnormal response of the serum TSH to administration of TRH confirms presence of**
- (a) Hypothalamic hypothyroidism  
(b) Pituitary hypothyroidism  
(c) Postradiation hypothyroidism  
(d) Iodine deficiency
- 38. All are useful in investigating hypothyroidism except**
- (a) Serum TSH level  
(b) Thyroid antimicrosomal antibodies  
(c) Radio iodine uptake  
(d) Serum cholesterol
- 39. The concentration of free  $T_4$  and  $T_3$  in serum is**
- (a) 1% (b) 2%  
(c) 3% (d) 4%
- 40. The half-life of L-thyroxine is**
- (a) 24 hours (b) 8 hours  
(c) 7 days (d) 28 days
- 41. All decreases thyroid hormone secretion except**
- (a) Dopamine (b) Lithium  
(c) Amiodarone (d) Iodine
- 42. Hormone replacement therapy adversely affects all cancers except**
- (a) Ovarian cancer  
(b) Breast cancer  
(c) Colorectal cancer  
(d) Endometrial cancer  
(e) Both (a) + (c)

- 43. Oestrogen receptors are present in all of the following tissues except**
- (a) Skin
  - (b) Vagina
  - (c) Urethra
  - (d) None of the above
  - (e) All of the above
- 44. Which of the following oestrogenic preparations has the highest receptor binding affinity?**
- (a) Estrone
  - (b) Estriol
  - (c) Estradiol 17  $\beta$
  - (d) Oestrogen sulphate
  - (e) 17 alpha dihydroquinin
- 45. Hot flushes are associated with all of the following except**
- (a) Gradual fall in estradiol level
  - (b) Sudden fall in estradiol level
  - (c) Leuteinizing hormone peak
  - (d) Catecholamine surge
  - (e) None of these
- 46. Contraindications for hormonal replacement therapy includes all of the following except**
- (a) Thrombo embolic disease
  - (b) Undiagnosed vaginal bleeding
  - (c) Breast and endometrial cancer
  - (d) Chronic liver disease
  - (e) None of these
- 47. Progesterone is added in hormonal replacement therapy for all the following reasons except**
- (a) Protection against breast cancer
  - (b) Protection against endometrial cancer
  - (c) As a CNS sedative
  - (d) For down regulation of E<sub>2</sub> receptors
- 48. All of the following modalities of treatment are effective in the treatment of postmenopausal osteoporosis except**
- (a) HRT
  - (b) Alendronate
  - (c) Alfacalcidol
  - (d) Parathyroid hormone
  - (e) None of the above

- 49. Which of the following is not a biochemical marker of bone formation?**
- (a) Serum alkaline phosphates
  - (b) Serum osteocalcin
  - (c) Serum C- and N-propeptides of type I collagen
  - (d) Serum tartrate-resistant acid phosphatase
  - (e) All of the above
- 50. Cardio protective effects of oestrogen are related to the following mechanisms except**
- (a) Raised HDL (High density lipoprotein)
  - (b) Lower LDL (Low density lipoprotein)
  - (c) Lowered homocysteine
  - (d) Raised PAI-1 (Plasminogen activator inhibitor-1)
  - (e) Altered vascular reactivity
- 51. Which of the following is not a natural oestrogen?**
- (a) Diethyl stilboestrol
  - (b) Estrone sulphate
  - (c) Estrone E<sub>1</sub>
  - (d) Estradiol E<sub>2</sub>
  - (e) Estrial E<sub>3</sub>
- 52. Elevated central venous pressure is seen in**
- (a) Application of PEEP
  - (b) CPAP mode of ventilation
  - (c) All of the above
  - (d) None of the above
- 53. An average smoker has a shorter lifespan compared to a non smoker by**
- (a) 3 years
  - (b) 4 years
  - (c) 5 years
  - (d) 6 years
- 54. The following are observational studies except**
- (a) The Framingham study
  - (b) The PROCAM study
  - (c) The seven countries study
  - (d) Physician's health study
- 55. The prescribed limit of total energy through dietary fats for Asians is**
- (a) 20 %
  - (b) 21 %
  - (c) 22 %
  - (d) 23 %

- 56. Which procedure is avoided during pregnancy?**
- (a) Echocardiography
  - (b) Radionucleotide studies
  - (c) MRI
  - (d) ECG
- 57. During sleep the normal lowest heart rate is**
- (a) 70/min
  - (b) 60/min
  - (c) 50/min
  - (d) 35-40/min
- 58. Osteoporosis may occur by which drug?**
- (a)  $\beta$ -blockers
  - (b) Ca-blockers
  - (c) Aspirin
  - (d) Prolonged heparin use
- 59. Hyperkalemia occur with all the following except**
- (a) K sparing diuretics
  - (b)  $\beta$ -blockers
  - (c) ACE inhibitors
  - (d) Nitrates
- 60. Pigmented skin is found in which type of ulcer**
- (a) Arterial
  - (b) Venous
  - (c) Neuropathic
  - (d) Small vessel
- 61. Which type of ulcer is located above malleoli?**
- (a) Arterial
  - (b) Venous
  - (c) Neuropathic
  - (d) Small vessel
- 62. Severe pain occur in which type of ulcer?**
- (a) Venous
  - (b) Small vessel
  - (c) Arterial
  - (d) Neuropathic
- 63. Wet base is found in which type of ulcer?**
- (a) Venous
  - (b) Neuropathic
  - (c) Arterial
  - (d) Small vessel
- 64. Cellulitis is not found in which type of ulcer?**
- (a) Venous
  - (b) Arterial
  - (c) Neuropathic
  - (d) Small vessel
- 65. Fluid retention occur with all the following except**
- (a) Estrogen
  - (b) Indomethacin
  - (c) Steroids
  - (d) ACE inhibitors

- 66. All are features of osteogenesis imperfecta except**
- (a) Blue sclera
  - (b) Aortic dissection
  - (c) VSD
  - (d) Atrial regurgitation
- 67. Commonest clinical manifestation of penetrating injury to heart is**
- (a) A-V fistula
  - (b) Heart failure
  - (c) Cardiac tamponade
  - (d) Intracardiac shunts
- 68. Which of the following cardiac findings extremely uncommon in myxoedema?**
- (a) Pericardial effusion
  - (b) T wave inversion on ECG
  - (c) Heart failure
  - (d) Low voltage QRS
- 69. All are uncommon cardiac findings in myxoedema except**
- (a) Constrictive pericarditis
  - (b) Arrhythmia
  - (c) Heart failure
  - (d) Pericardial effusion
- 70. Anabolic steroids may cause all the following except**
- (a) Left ventricular hypertrophy and hypertension
  - (b) Increased lipids
  - (c) Diabetes mellitus
  - (d) Increased atherosclerosis
- 71. Myxoedema produces all the following ECG changes except**
- (a) Low voltage of QRS
  - (b) Normal voltage P & T wave
  - (c) High incidence of digitalis toxicity
  - (d) Left bundle branch block
- 72. Regarding estrogen replacement therapy all are true except**
- (a) Might lower CVS risk
  - (b) Decreases incidence of stroke
  - (c) Increases thrombo embolisms
  - (d) Increases risk of breast cancer

- 73. Optimal approach to diabetic nephropathy includes all except**
- (a) Na-restriction
  - (b) Glycemic control
  - (c) Treatment of hypertension with ACE inhibitors
  - (d) Treatment of hypertension with beta-blockers
- 74. All are risk factors of diabetic nephropathy except**
- (a) Poor glycemic control
  - (b) Hypertension
  - (c) Occurs only in type II DM
  - (d) Common in blacks
- 75. Earliest finding in diabetic nephropathy**
- (a) Micro albuminuria
  - (b) Macro albuminuria
  - (c) Abnormal renal histology
  - (d) Abnormal renal ultrasound
- 76. Low molecule weight heparin is better than standard heparin except for**
- (a) More predictable anticoagulation response
  - (b) Less expensive
  - (c) More safe
  - (d) Easily administered
- 77. Most frequent cardiac disease in infant born to mother with SLE is**
- (a) ASD
  - (b) VSD
  - (c) AS
  - (d) CHB
- 78. Pagets disease of bone may be associated with all the following except**
- (a) High output state
  - (b) Conduction defects
  - (c) Calcific AV disease
  - (d) Cardiomyopathy
- 79. Usual cardiac finding in hemochromatosis are all the following except**
- (a) Heart failure
  - (b) Atrial fibrillation
  - (c) AV block
  - (d) Pericarditis

- 80. Anemia is found in all the following cardiac disease except**
- (a) Infective endocarditis
  - (b) Left atrial myxoma
  - (c) Prosthetic valves
  - (d) Aortic stenosis
- 81. Highest prevalence of heart disease in elderly male is**
- (a) Coronary artery disease
  - (b) HTN
  - (c) Valvular
  - (d) Cor pulmonale
- 82. Highest prevalence of heart disease in elderly female is**
- (a) Hypertension
  - (b) Coronary artery disease
  - (c) Valvular
  - (d) Cor pulmonale
- 83. Lithium results in following congenital cardiac defects commonly except**
- (a) Ebstein's anomaly
  - (b) ASD
  - (c) Tricuspid atresia
  - (d) A-V canal defect
- 84. All are important cardiovascular teratogens except**
- (a) Rubella
  - (b) Lithium
  - (c) Thalidomide
  - (d) Ca-blockers
- 85. All are common defects encountered in rubella infection except**
- (a) Patent ductus arteriosus
  - (b) Pulmonary stenosis (valvular)
  - (c) Peripheral pulmonary artery stenosis
  - (d) Septal defects
- 86. All are cocaine induced cardiovascular diseases except**
- (a) Ventricular arrhythmia
  - (b) Myocardial infarction
  - (c) Pericarditis
  - (d) Hypertension

- 87. Hypotension during dialysis is caused by all except**
- (a) Pericardial effusion
  - (b) LV failure
  - (c) Arrhythmia
  - (d) Dilated CMP
- 88. Commonest ECG change in Friedrich's ataxia**
- (a) ST/T changes
  - (b) RAD
  - (c) LAD
  - (d) Infero lateral Q waves
- 89. Lithium can cause all the following except**
- (a) T wave inversion
  - (b) Prominent U wave
  - (c) QT prolongation
  - (d) Sinus tachycardia
- 90. Oral contraceptives may cause all the following except**
- (a) Pulmonary hypertension
  - (b) Myocardial infarction
  - (c) Systemic hypertension
  - (d) Deep vein thrombosis
- 91. Anabolic steroids may cause all the following except**
- (a) Dyslipidemia
  - (b) Left ventricular hypertrophy
  - (c) Hypertension
  - (d) Cardiomyopathy
- 92. Cocaine can cause all the following except**
- (a) Acute myocardial infarction
  - (b) Acute severe hypertension
  - (c) Acute aortic dissection
  - (d) Acute pericarditis
- 93. All statements regarding cyclophosphamide cardiotoxicity are correct except**
- (a) Causes pericarditis
  - (b) Systolic dysfunction
  - (c) Arrhythmias
  - (d) Related to dose of the drug

- 94. Angioedema is rare with which ACE inhibitor?**  
(a) Ramipril (b) Captopril  
(c) Lisinopril (d) Enalapril
- 95. Which of the following drug needs loading dose?**  
(a) Propranolol (b) Digoxin  
(c) Captopril (d) Nifedipine
- 96. Smoking decreases the effect of which of the following drugs?**  
(a) Propranolol (b) Verapamil  
(c) Enalapril (d) Digoxin
- 97. Which of the following drug is not used by transdermal route?**  
(a) Nitroglycerine (b) Methyldopa  
(c) Clonidine (d) All of the above
- 98. All are causes of electromechanical dissociation except**  
(a) Hypovolemia  
(b) Pulmonary embolism  
(c) Cardiac tamponade  
(d) Uncomplicated acute myocardial infarction
- 99. Which chamber is most commonly hypertrophied in athletes?**  
(a) Left ventricular (LV)  
(b) Right ventricular (RV)  
(c) Right atrium (RA)  
(d) Left atrium (LA)
- 100. Which cardiovascular disease dose not produces epistaxis?**  
(a) Severe hypertension  
(b) Acute rheumatic fever  
(c) Congenital aortic stenosis  
(d) All of the above
- 101. Hoarseness of voice occurs in all the following except**  
(a) Mitral stenosis  
(b) Aortic aneurysm  
(c) Idiopathic dilation of PA  
(d) Aortic stenosis

- 102. Most common cardiovascular abnormality in marfans syndrome is**
- (a) Mitral valve prolapse
  - (b) Aortic root dilation
  - (c) Mitral regurgitation
  - (d) ASD
- 103. Pulse less electrical activity of heart is found in all the following except**
- (a) Cardiac tamponade
  - (b) Acute massive pulmonary embolism
  - (c) Tension pneumothorax
  - (d) Acute severe mitral regurgitation
- 104. Commonest cardiac lesion in rheumatoid arthritis is**
- (a) Conduction defect
  - (b) Aortic regurgitation
  - (c) Pericarditis
  - (d) Cardiomyopathy
- 105. Excessive sweating occur in all except**
- (a) During acute myocardial infarction
  - (b) Thyrotoxicoses
  - (c) Heart failure
  - (d) Aortic stenosis
- 106. Hoarseness of voice may suggest all the following cardiac disease except**
- (a) Primary pulmonary hypertension
  - (b) Large PDA
  - (c) Mitral stenosis
  - (d) Aortic stenosis
- 107. Drug induced pedal edema occurs in all except**
- (a) Nifedipine
  - (b) NSAIDS
  - (c) Hydralazine
  - (d)  $\beta$ -blockers
- 108. Commonest cardiac lesion with rheumatoid arthritis is**
- (a) Pericarditis
  - (b) Myocarditis
  - (c) Aortic regurgitation
  - (d) Conduction defects

**109. Malar flush is severe in all the following except**

- (a) Mitral stenosis
- (b) Increase venous pressure
- (c) Cardiac cachexia
- (d) Aortic stenosis

**110. Which is commonest tumor (Benign) in heart?**

- (a) Lipoma
- (b) Teratoma
- (c) Fibroma
- (d) Myxoma

**111. Myocardium is most commonly involved in**

- (a) SLE
- (b) Scleroderma
- (c) Rheumatoid arthritis
- (d) Ankylosing spondylitis

**112. All following disorders may arise during pregnancy except**

- (a) Hypertension systemic
- (b) Pulmonary embolism
- (c) Peripartum cardiac myopathy
- (d) Pericardial disease

**113. All are high risk cardiac lesion for pregnancy except**

- (a) Primary pulmonary hypertension
- (b) Eisenmenger's syndrome
- (c) Aortic stenosis
- (d) ASD

**114. All are low risk cardiac patients for pregnancy except**

- (a) Mitral regurgitation
- (b) Aortic regurgitation
- (c) VSD without PAH
- (d) Marfan's syndrome

**115. Circulatory changes in pregnancy are all except**

- (a) Vascular resistance increase
- (b) Cardiac resistance increase
- (c) Venous resistance increase
- (d) Blood volume increase

**116. Commonest cardiac feature of sarcoidosis**

- (a) BBB
- (b) CHB

- (c) Pericarditis
- (d) Supraventricular arrhythmia

**117. All feature are found in amyloid heart disease except**

- (a) PAP > 50 mmHg
- (b) LVEDP > 20 mmHg
- (c) LVEDP - RVEP = > 5
- (d) No kussmull's sign

**118. Cardiovascular protective effect of alcohol is mediated by all the following mechanisms except**

- (a) Improves insulin sensitivity
- (b) Increase Lp (a)
- (c) Decrease HDL-C
- (d) Increase sympathetic activity

**119. The most common cardiac finding in addison's disease is**

- (a) Heart failure
- (b) Prolonged QT interval
- (c) Sinus bradycardia
- (d) Hypertension

**120. All the following lipid lowering drugs require dose modification with renal insufficiency except**

- (a) Statins
- (b) Beno fibrate
- (c) Feno fibrate
- (d) Resins

**121. Characteristic lesion in coronaries following radiotherapy is located at**

- (a) Proximal
- (b) Distal
- (c) Mid
- (d) Any where

**122. All the following statements regarding arrhythmia in pregnancy are correct except**

- (a) SVT in absence of heart often occur
- (b) SVT dine city related to projectance
- (c) SVT dine city related to stinger
- (d) ICD patients have no contraindication to pregnancy

**123. Most common site of cardiovascular involvement in HIV infection is**

- (a) Myocardium
- (b) Endocardium
- (c) Pericardium
- (d) Conducting tissue

- 124. In left atrial myxoma tumor plop has all the following features except**
- (a) Early diastolic sound
  - (b) Usually after 3<sup>rd</sup> heart sound
  - (c) Low pitched
  - (d) Transient sound
- 125. Which is usually not the feature of left atrial myxoma?**
- (a) Syncope
  - (b) Tumous plop
  - (c) Atrial fibrillation
  - (d) Murmur vary with position
- 126. Most common clinical manifestation of left atrial myxoma is**
- (a) Embolism
  - (b) Arthralgia
  - (c) Syncope
  - (d) Haemoptysis
- 127. All are common sites of embolism from left atrial myxoma except**
- (a) Coronary
  - (b) Kidney
  - (c) Brain
  - (d) Lower extremity
- 128. Antidepressant overdose is suggested by all except**
- (a) Sinus tachycardia
  - (b) QRS prolongation
  - (c) QT prolongation
  - (d) Generalized T wave inversion
- 129. Most common cause of death in chronic renal failure is**
- (a) Heart failure
  - (b) Myocardial infarction
  - (c) Stroke
  - (d) Sepsis
- 130. Which of the following physiological change remains unchanged during pregnancy?**
- (a) O<sub>2</sub> consumption
  - (b) Cardiac output
  - (c) Peripheral vascular resistance
  - (d) Pulmonary artery pressure
- 131. Myxoedema causes all the following cardiac abnormalities except**

- (a) Bradycardia      (b) Pericardial effusion  
(c) Hyperlipidemia      (d) Valvular defects

**132. Hyperthyroidism may cause all the following except**

- (a) Atrial fibrillation  
(b) Systolic hypertension  
(c) Sinus tachycardia  
(d) Pericarditis

**133. Which is least common manifestation of RA?**

- (a) Venous thrombosis  
(b) Myocarditis  
(c) Conduction defect  
(d) CAD

**134. In cardiac contusion the ECG usually shows following change except**

- (a) ST-T changes  
(b) Q wave  
(c) Supra ventricular and ventricular arrhythmia  
(d) AV block

**135. Only known cardiac effect of SSRIS is**

- (a) Myocarditis  
(b) VES  
(c) Sinus tachycardia  
(d) Sinus bradycardia

**136. All the following psychotropic drugs have no known CV effects except**

- (a) Citalopram      (b) Escitalopram  
(c) Mirtazapine      (d) Benzodiazepine

**137. Which of the following psychotropic agent cause orthostatic hypotension?**

- (a) Venflexine      (b) Bupropion  
(c) Nefazodone      (d) Trazodone

**138. All the following cause orthostatic hypotension except**

- (a) Tricyclic antidepressant  
(b) Monoamine oxidase inhibitor  
(c) Trazodone  
(d) Floxoxetinal

- 139. All are common cardiac signs in normal pregnancy except**
- (a) Pedal edema
  - (b) PND
  - (c) DOE
  - (d) Hemophysis
- 140. Obstruction of cardiac lymphatics may cause following except**
- (a) Myocardial edema
  - (b) Pericardial effusion
  - (c) Pleural effusion
  - (d) None of the above
- 141. Which drug is removed by peritoneal dialysis?**
- (a) Quinidine
  - (b) Sotalol
  - (c) Amiodasone
  - (d) None of the above
- 142. Most common lesion in marfan's syndrome is**
- (a) MVP
  - (b) Aortic root dilation
  - (c) Aortic regurgitation
  - (d) All the above
- 143. All are cardiovascular manifestation of hurler's in MPS except**
- (a) HT
  - (b) Valvular dysfunction
  - (c) Arterial disease
  - (d) Pericardial disease
- 144. In marquo syndrome commonly seen cardiac lesion is**
- (a) HT
  - (b) Pericarditis
  - (c) Valvular defect
  - (d) Septal defect
- 145. MPS (VI) presents with which cardiac lesion?**
- (a) Calcific stenolic AV
  - (b) MAC
  - (c) Septal defect
  - (d) Coronary calcification
- 146. Pseudohurler polydystrophy presents with which cardiac lesion?**
- (a) Valvular lesion
  - (b) Pericarditis
  - (c) CHB
  - (d) CMP

**147. LCAD deficiency causes which cardiac lesion?**

- (a) Valvular defect
- (b) Pericardial disease
- (c) HCM
- (d) Septal defects

**148. Primary hyperoxaluria causes which cardiac defect?**

- (a) Valvular
- (b) Pericardial
- (c) Myocarditis
- (d) CHB

**149. Cerebro tendinous xanthomahosi's causes which cardio vascular disease?**

- (a) Valvular
- (b) CMP
- (c) CHB
- (d) Premature atherosclerosis

**150. Wilsar's disease causes commonly which cardiac disorder?**

- (a) Pericarditis
- (b) Valvular lesion
- (c) CHB
- (d) Cardiomyopathy

**151. Homocysteinuria causes commonly which cardiovascular disorder**

- (a) Pericarditis
- (b) Thrombosis of large and small arteries and veins
- (c) Valvular lesion
- (d) Conduction defects

**152. Antiphospholipid antibodies cause all the following cardiac disorder except**

- (a) Coronary thrombosis
- (b) Endocarditis
- (c) Aortic/Mitral valvular stenosis regurgitation
- (d) Pericarditis

**153. SLE produces all the following cardiac disorders except**

- (a) Pulmonary hypertension
- (b) Systemic hypertension
- (c) Endocarditis
- (d) Premature atherosclerosis

- 154. Which is commonest pericardial involvement in rheumatoid arthritis?**
- (a) Pericardial thickening
  - (b) Acute pericarditis
  - (c) Constrictive pericarditis
  - (d) Pericardial tamponade
- 155. The characteristic cardiac finding in Becker's muscular dystrophy is**
- (a) Dilated CMD
  - (b) CHB
  - (c) Q waves
  - (d) Tall R in V1
- 156. The most common cardiac finding in facioscapulohumeral muscular dystrophy is**
- (a) Atrial enlargement
  - (b) PR increase
  - (c) Atrial flutter
  - (d) VES
- 157. Most common arrhythmia in severe form of myotonic dystrophy is**
- (a) Atrial flutter
  - (b) AV block
  - (c) Intraventricular conduction defect
  - (d) Ventricular arrhythmia
- 158. Most common echo finding in frederichis ataxia is**
- (a) RWMA
  - (b) LVH
  - (c) Normal LV function
  - (d) Dilated CMP
- 159. Alcohol can cause all is of the following cardiac disorders except**
- (a) Dilated CMP
  - (b) Arrhythmias
  - (c) Hypertension
  - (d) CAD
- 160. Commonest ECG finding in duchenne muscular dystrophy is**
- (a) Tall R with high R/S ratio in V1
  - (b) RAD
  - (c) Short PR interval
  - (d) Deep narrow q in Ant Lat leads
- 161. All of the following changes occur in ECG is myotomic dystrophy except**

- (a) AV block
- (b) Fascicular block
- (c) Prolongation of QRS interval
- (d) Sinus tachycardia

**162. All are hemodynamic changes normal pregnancy in 1<sup>st</sup> trimester except**

- (a) Cardiac output
- (b) Systolic blood pressure unchanged
- (c) Diastolic blood pressure
- (d) LVEF unchanged

**163. All of the following hemodynamic changes occur during 2<sup>nd</sup> trimester in normal pregnancy except**

- (a) Cardiac output increase
- (b) Systolic blood pressure decrease
- (c) Diastolic blood pressure
- (d) LVEF increased

**164. All of the following changes occur in 3<sup>rd</sup> trimester during normal pregnancy except**

- (a) Cardiac out put increases
- (b) Both systolic/diastolic blood pressure remain unchanged
- (c) Left ventricular volume increases
- (d) LVEF is decreased

**165. Rarest benign tumor of heart is**

- (a) Teratoma
- (b) Hemangioma
- (c) Mesothelioma of AV node
- (d) Fibroma

**166. Commonest malignant tumour of heart is**

- (a) Angiosarcoma
- (b) Fibrosarcoma
- (c) Malignant lymphoma
- (d) Neurogenic sarcoma

**167. All are homodynamic effects of ureteric contraction except**

- (a) Increase blood volume
- (b) Increase cardiac output
- (c) Increase blood pressure
- (d) Increase PVR

- 168. CHB developing during pregnancy is related to all the following except**
- (a) Acute myocarditis
  - (b) Calcific aortic stenosis
  - (c) After surgical correction of VSD
  - (d) Severe calcific mitral stenosis
- 169. Which is the commonest lipid disorder seen in chronic renal failure (non-nephrotic)?**
- (a) Increase TG
  - (b) Increase TC
  - (c) Increase TG + TC
  - (d) None of the above
- 170. Commonest cardiovascular cause of death in ESRD is**
- (a) Myocardial infarction
  - (b) Hemorrhagic pericarditis
  - (c) Heart failure
  - (d) CVA
- 171. Rheumatoid arthritis may cause all the following except**
- (a) Pericarditis
  - (b) Valvulitis
  - (c) Coronary vasculitis
  - (d) Aortitis
- 172. SLE produces all the following except**
- (a) Myocarditis
  - (b) Pericarditis
  - (c) Valvulitis
  - (d) Aortitis
- 173. Scleroderma causes which of the following?**
- (a) Myocarditis
  - (b) Valvulitis
  - (c) Coronary vasculitis
  - (d) Aortitis
- 174. Ankylosing spondylitis produces which of the following?**
- (a) Aortitis
  - (b) Myocarditis
  - (c) Pericarditis
  - (d) Coronary vasculitis
- 175. Polymyositis produces which of the following?**
- (a) Myocarditis
  - (b) Pericarditis
  - (c) Valvulitis
  - (d) Aortitis

**176. All are nutritional causes of heart muscle disease except**

- (a) Kwashiorkor
- (b) Magnesium deficiency
- (c) Beri beri
- (d) Perturbations of Na metabolism

**177. Usual cardiac causes of hoarseness of voice**

- (a) Idiopathic dilation of PA
- (b) Pulmonary hypertension
- (c) Aortic syndrome
- (d) Aortic regurgitation

**178. Which cardiac disease produces anemia?**

- (a) Infective endocarditis
- (b) Prosthetic valve
- (c) Aortic stenosis
- (d) All of the above

**179. Which vasodilator has similar arterial and venous dilation capacity?**

- (a) Hydralazine
- (b) Minoxidil
- (c)  $\beta$ -blocker
- (d) ACE inhibitors

**180. Which Ca-blocker always increases heart rate?**

- (a) Amlodipine
- (b) Nifedipine
- (c) Diltiazem
- (d) Verapamil

**181. All of the following are aldosterone antagonists except**

- (a) Aldactone
- (b) Trimethaphan
- (c) Eprinilone
- (d)  $\beta$ -blockers

**182. AT1 receptors are located in all the following sites except**

- (a) Vessels
- (b) Brain
- (c) Heart
- (d) Adrenal gland

**183. AT2 receptors are located at all following sites except**

- (a) Heart
- (b) Brain
- (c) Uterus (Myometrium)
- (d) Nerves

- 184. AT3 receptors are located in which of the following?**
- (a) Vessels
  - (b) Adrenal gland
  - (c) Neuroblastoma cells in amphibian
  - (d) Heart
- 185. Which receptor has anti proliferative effect?**
- (a) AT1
  - (b) AT2
  - (c) AT3
  - (d) AT4
- 186. Upper respiratory tract infection occurs maximally with which of the following**
- (a) Irbisartan
  - (b) Losartan
  - (c) Candisartan
  - (d) Valsartan
- 187. AT4 are located in all the following except**
- (a) Brain
  - (b) Lungs
  - (c) Prostate
  - (d) Nerves
- 188. Which of the following receptors is involved in increasing vasopressin release?**
- (a) AT1
  - (b) AT2
  - (c) AT3
  - (d) AT4
- 189. Which receptors are increased in stimulation of PAI-1?**
- (a) AT1
  - (b) AT4
  - (c) Both of the above
  - (d) None of the above
- 190. Proneness to viral infection occurs with which ARB**
- (a) Valsartan
  - (b) Tirbisartan
  - (c) Losartan
  - (d) Candisartan
- 191. Arthralgia occurs with which of the following?**
- (a) Losartan
  - (b) Olmesartan
  - (c) Irbisartan
  - (d) Iprosartan
- 192. Insulin sensitizers in type 2 Diabetes mellitus cause all the following effects except**
- (a) Intima-medial thickness
  - (b) Induces coronary artery relaxation
  - (c) Increases cardiac output
  - (d) Increases blood pressure

**193. ARB's cause all of the following except**

- (a) No change in bradykinin
- (b) Cough occurs with equal frequency as with ACE inhibitors
- (c) Less angioedema than ACE inhibitors
- (d) Hyperkalemia less common than ACE inhibitor

**194. For persistent hyperkalemia the choice of treatment is**

- (a) Calcium gluconate
- (b) Glucose with insulin
- (c) B2 adrenergic agonist
- (d) Dialysis

**195. All of following are the causes of electro-mechanical dissociation except**

- (a) Cardiac tamponade
- (b) Hyperkalemia
- (c) Alkalosis
- (d) Hypovolemia

**196. All are non cardiac uses of beta-blockers except**

- (a) Hypothyroidism
- (b) Migraine
- (c) Glaucoma
- (d) Essential tremors

**197. All are compelling contraindication to ACE inhibitors except**

- (a) Pregnancy
- (b) Bilateral renal artery stenosis
- (c) Hyperkalemia
- (d) ESRD

**198. Thiazide diuretics are not effective at which level of serum creatinine**

- (a) 1 mg %
- (b) 1.5 mg %
- (c) 2.0 mg %
- (d)  $\geq 2.5$  mg %

**199. In all the following situations risk of diabetes mellitus may not be increased except**

- (a) AF with or without VR
- (b) PH severe
- (c) Very disorganized and immobile valve
- (d) Mod mitral stenosis in NSR and normal rate

- 200. All of the following cardiac lesions occur in AIDS except**
- (a) Cardiomyopathy
  - (b) Pericardial effusion
  - (c) Infective endocarditis
  - (d) Left atrial myxoma
- 201. Which is the commonest manifestation of rheumatic pericarditis?**
- (a) Valvulitis
  - (b) Myocarditis
  - (c) Pericarditis
  - (d) All of the above
- 202. Anabolic steroid may cause all the following except**
- (a) Decrease HDL-C
  - (b) Precipitate heart failure
  - (c) Causes hypertension
  - (d) Valvular defects
- 203. All are clinical features of left atrial myxoma except**
- (a) Changing murmur with position
  - (b) Enlarged LA
  - (c) Tumor plop
  - (d) Sinus rhythm
- 204. Which is the most common finding in left atrial myxoma?**
- (a) Embolism
  - (b) Syncope
  - (c) Arthralgia
  - (d) Hemoptysis
- 205. Osteogenesis imperfecta is not associated with**
- (a) VSD
  - (b) AR
  - (c) MVP
  - (d) Dissection of aorta
- 206. Which lipid fraction is not decreased in diabetic dyslipidemia?**
- (a) HDL-C
  - (b) Apo A1
  - (c) Both (a) and (b)
  - (d) Apo B
- 207. Endothelial dysfunction in diabetes mellitus causes all the following except**
- (a) Increase in angiotensin II
  - (b) Increase in PAI-1 production
  - (c) Increase NO production
  - (d) Increase in DAG synthesis

**208. Primary cause of death in woman is**

- (a) Cardiovascular disease
- (b) Cancer
- (c) Inflectional
- (d) Anaemia

**209. Which is most sensitive test in cardiac amyloidosis?**

- (a) Skin biopsy
- (b) Rectal biopsy
- (c) Endomyocardial biopsy
- (d) Bone marrow biopsy

**210. Cardiac amyloid patients are usually sensitive to which of the following drug?**

- (a) Dimeters
- (b) Ca-blockers
- (c) Beta-blockers
- (d) ACE inhibitors

**211. Following are echocardiographic predicting poor prognosis in aortic heart except**

- (a) LA enlargement
- (b) RV dilatation
- (c) Increased LV thickness
- (d) Decrease EF

**212. All are left atrial causes of cardiogenic embolism to brain except**

- (a) Atrial flutter/fibrillation
- (b) Left atrial myxoma
- (c) Atrial septal aneurysm
- (d) Atrial tachycardia

**213. Embolism presents in all the following MV lesions except**

- (a) Infective endocarditis
- (b) MVP
- (c) Prosthetic valve
- (d) All the above

**214. All the following cardiac drugs decrease blood viscosity except**

- (a) Prazocin
- (b) Nitrates
- (c) Nicardipine
- (d) Hydrochlore thiazide

- 215. All the following drugs increase erythrocytes deformability except**
- (a) Verapanil
  - (b) Clazapil
  - (c) Carvedilal
  - (d) Hydrochloric thiazide
- 216. Antibiotic therapy should be targeted to bring the HbA1C level to for reducing cardio vascular events**
- (a) 7.5 %
  - (b) 7 %
  - (c) 65 %
  - (d) < 6 %
- 217. Neutropenia with ACE inhibitor is maximum when**
- (a) Given alone
  - (b) Given with renal insufficiency
  - (c) Given with collagen disease
  - (d) Given with collagen disease and renal insufficiency
- 218. First dose hypotension with ACE inhibitor is more likely in all of the following saturation except**
- (a) Renal artery stenosis
  - (b) Malignant hypertension with low age + K
  - (c) Severs HF treated with diameter
  - (d) Increase sensitivity to drug
- 219. Smoking causes highest risk ratio of which of the following**
- (a) Sudden cardiac death
  - (b) Myocardial infection
  - (c) All coronary related deaths
  - (d) UA
- 220. Following dimities produce neutropemis except**
- (a) Ethaerynic acid
  - (b) Hydrochlor thiazide
  - (c) Mereuratt
  - (d) Splronalectone
- 221. All of the following drugs produce thrombocytopenia except**
- (a) Acetazalamide
  - (b) Chlorthiazide
  - (c) Chlorthalidone
  - (d) Ethererynic acid

- 222. Thrombocytopenia occurs with**
- (a) Hydralazemil      (b) Methyldopa  
(c) Reserpine          (d) All of the above
- 223. All of the following drugs may produce agranulocytosis except**
- (a) Procainamide      (b) Tocuenide  
(c) Propaphenone      (d) Digoxin
- 224. Pure red cell aphasia may occurs with which of the following drug?**
- (a) Captopril          (b) Heparin  
(c) Acetazalamide      (d) Tocaenide
- 225. Which of the following drug produces Megaloblastic anemia?**
- (a) Triamterine          (b) Procairamide  
(c) Quinidine          (d) Reserpine
- 226. Autopsy incidence which cardiac disease in india is highest?**
- (a) Rheumatic          (b) Hypertensive  
(c) IHD                  (d) Cor pulmonale
- 227. Radiation does not cause which cardiovascular disease?**
- (a) Pericardial          (b) Myocardial  
(c) Valvular              (d) Hypertension
- 228. Common neonatal cardiac abnormality when mother is taking ACE inhibitors**
- (a) Coarctation of aorta  
(b) PDA  
(c) Fallots tetralogy  
(d) ASD
- 229. All following drugs used in pregnancy can cause neonatal bradycardia except**
- (a)  $\beta$ -Blockers          (b) Nitrates  
(c) Mexiletin              (d) Procainamide
- 230. All following drugs may cause raynauds phenomenon except**
- (a)  $\beta$ -blockers          (b) Ergolamine  
(c) Methysergide          (d) Clonidine

- 231. Most common cardiac manifestation of HIV disease is**
- (a) Pericardial effusion
  - (b) Dilated cardiomyopathy
  - (c) Pulmonary hypertension
  - (d) Cardiac tumors
- 232. In acromegaly all of the following may be found except**
- (a) Hypertension
  - (b) Heart failure
  - (c) Premature coronary artery disease
  - (d) Heart blocks
- 233. Least common cause of hypotension is**
- (a) Right ventricular infarction
  - (b) Cardiogenic shock
  - (c) Cardiac tamponade
  - (d) Hypothyroid heart disease
- 234. TG is increased by all the following except**
- (a) Diabetes mellitus
  - (b) Atenolol
  - (c) Oral contraceptives
  - (d) Primary biliary cirrhosis
- 235. When are anticoagulants used in superficial thrombophlebitis?**
- (a) Every case
  - (b) When anti inflammatory drugs fail
  - (c) Extension to deep venous thrombosis
  - (d) All of the above
- 236. Which heart disease has highest prevalence in elderly female?**
- (a) Coronary artery disease
  - (b) Hypertension
  - (c) Valvular
  - (d) Pulmonary
- 237. Hoarseness of voice occurs in all of the following except**
- (a) Enlarged left atrium
  - (b) Enlarged (dilated) pulmonary artery
  - (c) Aortic aneurysm
  - (d) Enlarged left ventricle

- 238. Which heart disease has highest prevalence in elderly male?**
- (a) Coronary artery disease
  - (b) Hypertension
  - (c) Valvular
  - (d) Pulmonary
- 239. All of the following are the hemodynamic alteration in amyloid heart disease except**
- (a) PAP > 50 mmHg
  - (b) LVEDP > 20 mmHg
  - (c) LVEDP - RVEDP > 5
  - (d) Equalization of end diastolic pressure in all 4 chambers
- 240. Cardiovascular changes in anemia usually occur when Hb concentration is reduced by**
- (a) 10 %
  - (b) 20 %
  - (c) 30 %
  - (d) 40 %
- 241. Which is characteristic finding of cardiovascular system due to anemia?**
- (a) Systemic congestion
  - (b) Pulmonary congestion
  - (c) Dilatation of heart
  - (d) Presence of murmurs
- 242. Which is rare finding in myxoedema?**
- (a) Increase incidence of coronary atherosclerosis
  - (b) Cardiac output is reduced
  - (c) Pericardial effusion
  - (d) Cardiac tamponade
- 243. Commonest cause of coronary artery embolism is**
- (a) Infective endocarditis
  - (b) Prosthetic valve thrombosis
  - (c) Mural thrombi in left heart
  - (d) Valve fragments emboli during surgery
- 244. The exchange function is carried by which part of arterial tree?**
- (a) Medium sized arteries
  - (b) Small arteries
  - (c) Arterioles
  - (d) Capillaries

- 245. Which part of arterial tree is responsible for vascular resistance?**
- (a) Small arteries      (b) Arterioles  
(c) Capillaries      (d) All of the above
- 246. Redistribution of blood is carried by which part of arterial tree?**
- (a) Large arteries      (b) Arterioles  
(c) Capillaries      (d) All of the above
- 247. Which part of arterial tree has maximum wall thickness?**
- (a) Aortic      (b) Large arteries  
(c) Arterioles      (d) Capillaries
- 248. Endothelium is the predominant structure in which part of arterial tree?**
- (a) Small artery      (b) Arterioles  
(c) Capillaries      (d) Large arteries
- 249. Elastin is predominantly found in which part of arterial tree?**
- (a) Aorta  
(b) Large arteries  
(c) Medium sized artery  
(d) Small sized artery
- 250. Neutropenia is most frequently linked to**
- (a) Captopril      (b) Enalapril  
(c) Lisinopril      (d) Terindopril
- 251. Cough induced by ACE inhibitors has all the following features except**
- (a) Increase sensitivity of cough reflex  
(b) Start with tickling sensation in throat  
(c) More in men than women  
(d) Related to prostaglandin formation
- 252. Visceral obesity is associated with all except**
- (a) Hypertension  
(b) Type 2 diabetes mellitus  
(c) Coronary artery disease  
(d) ASD
- 253. Perioperative cardiac events peak at which time?**
- (a) During surgery  
(b) On 1<sup>st</sup> operative day

- (c) Between 2<sup>nd</sup> and 5<sup>th</sup> post operative day
- (d) After one week of surgery

**254. Which is the most common cardiovascular abnormality in arteriohepatic dysplasia?**

- (a) Diffuse pulmonary artery stenosis
- (b) Pulmonary atresia
- (c) TOF
- (d) Coarctation of aorta

**255. Most common cardiovascular abnormality in turner's syndrome**

- (a) Aortic stenosis
- (b) TAPVD
- (c) Bicuspid aortic valve
- (d) Ventricular septal defect

**256. Most common cardiac abnormality is down's syndrome**

- (a) A-V canal defect
- (b) VSD
- (c) ASD
- (d) Fallot's tetralogy

**257. Which is the most common neoplastic disorder involving pericardium by direct extension?**

- (a) Breast
- (b) Lung
- (c) Lymphoma
- (d) Leukemia

**258. Sinns tachycardia is not found with fever in all following conditions except**

- (a) Typhoid fever
- (b) Viral hemorrhagic fever
- (c) Lessa fever
- (d) Pulmonary tuberculosis

**259. Most common cause of ESRD is**

- (a) Diabetic nephropathy
- (b) Hypertensive nephrosclerosis
- (c) Primary glomerular disease
- (d) Tubulo interstitial disease

**260. Anabolic steroids may causes following cardiovascular disorders except**

- (a) Increase atherosclerosis
- (b) Hypertension
- (c) LVH
- (d) Cardiomyopathy

**261. Most common symptom of cocaine is**

- (a) Sudden cardiac death
- (b) Chest pain
- (c) Dyspnoea
- (d) Edema

**262. In which CNS lesion cardiac arrhythmias are most common**

- (a) Meningitis
- (b) Encephalitis
- (c) Brain stem lesion
- (d) Internal capsule lesion

**263. Horse chest nut tree extract is useful in edema (Leg) of which origin**

- (a) Renal failure
- (b) Heart failure
- (c) Myxoedema
- (d) Edema venous in sufficiency

**264. Which of the following May be the only manifestation of apathetic hyperthyroidism in elderly**

- (a) AE
- (b) AT
- (c) Atrial fibrillation
- (d) Atrial flutter

**265. Gibson's murmur is found in**

- (a) Fallot's tetralogy
- (b) Pulmonary arterio venous fistula
- (c) VSD with atrial regurgitation
- (d) PDA

**266. All the following are common cardiac complications of acromegaly except**

- (a) Heart failure
- (b) Acute coronary syndromes
- (c) Tachyarrhythmias
- (d) Heart block complete

**267. Adrenal insufficiency produces all the following except**

- (a) Hypotension
- (b) Sinus bradycardia
- (c) Nonspecific ST/T changes
- (d) Long QT interval

**268. Which is most common cardiac pathology in AIDS?**

- (a) Myocarditis
- (b) Pericardial effusion
- (c) Pulmonary hypertension
- (d) Long QT interval

**269. Which of the following is rare in cardiac allograft vasculopathy?**

- (a) Dyspnoea
- (b) Ventricular arrhythmia
- (c) Sudden death
- (d) Angina

**270. All following are used to prevent development of anthracycline induced cardiomyopathy except**

- (a) Limit the dose
- (b) Liposomal encapsulated formulation
- (c) Modified dosing schedule
- (d) ACE inhibitors

**271. Myxomas occur most commonly in which cardiac chamber?**

- (a) Left ventricular      (b) Right ventricular
- (c) Right atrium        (d) Left atrium

**272. Sildenafil is useful in which cardiac condition?**

- (a) Angina
- (b) Systemic hypertension
- (c) Pulmonary hypertension
- (d) All the above

**273. Endocardial metastasis most often occurs with**

- (a) Adenocarcinoma
- (b) Bronchogenic carcinoma
- (c) Breast cancers
- (d) Lymphoma

**274. Which is primary malignant tumour of heart?**

- (a) Papillary fibroelastoma
- (b) Lymphoma
- (c) Fibroma
- (d) Lipoma

- 275. Which systemic manifestation is not found in left atrial myxoma as against infective endocardia?**
- (a) Fever (b) Anemia  
(c) Splenomegaly (d) Clubbing
- 276. All of the following drugs increase cyclosporine levels except**
- (a) Diltiazem (b) Erythromycin  
(c) Metoclopramide (d) Hydantoins
- 277. Which of the following cardiac vascular disorders has highest risk for pregnancy?**
- (a) Coarctation of aorta  
(b) Eisenmenger syndrome  
(c) Peripartum cardiomyopathy  
(d) TOF
- 278. Which chromosome abnormalities causes highest % of CV abnormalities?**
- (a) + 21, down syndrome  
(b) × 0, turner syndrome  
(c) + 18, edward syndrome  
(d) + 13, patau's syndrome
- 279. All following endocardial lesion are produce in systemic lupus erythematosis except**
- (a) Libman sacks endocarditis  
(b) Valvular thickening  
(c) Intracardiac thrombi  
(d) Endocardial fibroelastosis
- 280. All following coronary arterial lesion can occur SLE except**
- (a) Premature atherosclerosis  
(b) Arteritis  
(c) Thrombosis  
(d) Coronary artery dissection
- 281. Which is the commonest ECG funding the systemic sclerosis?**
- (a) Normal ECG (b) RBBB  
(c) Atrial ectopic (d) LVH
- 282. Which cardiac drugs doesn't cause lupus like syndrome?**

- (a) Procainamide      (b) Quinidine  
(c) Methyldopa      (d) Reserpine

**283. Which of the following anaesthetic is marked myocardial depressant?**

- (a) Morphine      (b) Fentanyl  
(c) Isoflurane      (d) Halothane

**284. All of the following anaesthetic agents produce no change in heart rate except**

- (a) Halothane      (b) Sevoflurane  
(c) Nitrous oxide      (d) Fentanyl

**285. Narcotic based anaesthetic agents are choice in all the following except**

- (a) MV disease  
(b) Aortic stenosis  
(c) Cardiomyopathy  
(d) Constrictive pericarditis

**286. Halogen based anaesthetic agents are choice in**

- (a) Aortic stenosis  
(b) Aortic aneurysm  
(c) Coronary artery disease  
(d) Aortic regurgitation

**287. Which is the commonest benign tumor of heart?**

- (a) Lipoma      (b) Myxoma  
(c) Fibroma      (d) Haemangioma

**288. Which is commonest malignant cardiac tumor?**

- (a) Angiosarcoma      (b) Mesothelioma  
(c) Fibrosarcoma      (d) Thymoma

**289. Maximum distribution of cardiac output during rest occurs in which organ?**

- (a) Kidneys      (b) Liver  
(c) Heart      (d) Brain

**290. Maximum distribution of cardiac output during exercise occurs in which organ?**

- (a) Muscles      (b) Heart  
(c) Liver      (d) Brain

- 291. Which nutritional deficiency in mother is associated with congenital heart disease in newborn?**
- (a) Fat (b) Protein  
(c) Vitamin A (d) Folate
- 292. Which physiological change occurs maximally in pregnancy?**
- (a) Cardiac output  
(b) HR  
(c) Stroke volume  
(d) Pulmonary artery pressure
- 293. Commonest cardiovascular manifestation of kawasaki disease**
- (a) Pericardial effusion  
(b) Coronary artery aneurysm  
(c) Mitral regurgitation  
(d) Myocarditis
- 294. Lymphocytic myocarditis is found in all except**
- (a) Viral  
(b) Polymyositis  
(c) Mycoplasma pneumonia  
(d) Parasitic infestation
- 295. Granulomatons myocarditis is found in all except?**
- (a) Rheumatoid (b) Rheumatic  
(c) Sarcoid (d) Kawasaki disease
- 296. All of the following drugs have hepatic route of elimination except**
- (a) Propranolol (b) Diltiazem  
(c) Verapamil (d) Bretyllium
- 297. All of the following endocrine disorders may cause heart muscle disease except**
- (a) Thyrotoxicosis  
(b) Myxoedema  
(c) Phaeochromocytoma  
(d) Hypoparathyroidism
- 298. All are radiation induced cardiovascular disease except**
- (a) Pericardial disease

- (b) Hypertension
- (c) Valvular dysfunction
- (d) Myocardial disease

**299. Rheumatoid arthritis does not involve**

- (a) Coronaries
- (b) Valves
- (c) Myocardium
- (d) Pericardium

**300. Ankylosing spondylitis particularly involve**

- (a) Valves
- (b) Coronaries
- (c) Pericardium
- (d) Myocardium

**301. Systemic sclerosis does not involve**

- (a) Valves
- (b) Coronaries
- (c) Myocardium
- (d) Pericardium

**302. Myocardial biochemical alterations in heart failure include all except**

- (a) Increased collagen
- (b) Decreased myocardial nor epinephrine
- (c) Decreased synthesis of alerepibephone
- (d) Increased function of sarcoplasmic reticulum

**303. All of the drugs cause autonomic failure except**

- (a) Phenothiazines
- (b) Tricyclic antidepressants
- (c) Diuretics
- (d) ACE inhibitors

**304. Drug used in prevention of post prandial hypotension**

- (a) Clonidine
- (b) Dihydroegotamine
- (c) Propanolol
- (d) Caffeine

**305. Which drug inhibits negative inotropic and chronotropic effect of  $\beta$ -blockers?**

- (a) Adrenaline
- (b) Methyldopa
- (c) Glycogen
- (d) Tricyclic antidepressants

**306. Fetal alcohol syndrome does not cause which congenital heart disease?**

- (a) ASD
- (b) VSD
- (c) PDA
- (d) Aortic stenosis

- 307. Which congenital heart disease is common in congenital hypothyroidism?**
- (a) PDA
  - (b) ASD
  - (c) VSD
  - (d) Aortic stenosis
- 308. High incidence of congenital heart block in offspring occurs when mother suffers from**
- (a) DM
  - (b) Rheumatoid arthritis
  - (c) SLE
  - (d) All the above
- 309. Offsprings of diabetic mother are usually**
- (a) Over weight
  - (b) Under weight
  - (c) Both (a) and (b)
  - (d) Average weight
- 310. Phenytoin by mother is associated with all following congenital heart disease except**
- (a) PS
  - (b) AS
  - (c) Coarctation of AV
  - (d) VSD
- 311. All following are effects of insulin sensitizers or lipids except**
- (a) Decrease TG Levels
  - (b) Increase HDL levels
  - (c) Decrease LDL-C oxidation
  - (d) Decrease LDL-C
- 312. Insulin sensitizers have the following vascular effects except**
- (a) Decrease intima-media thickness
  - (b) Lower blood pressure
  - (c) Induce coronary artery relaxation
  - (d) Increase vascular smooth muscle cell migration
- 313. All are advantages of metformin therapy except**
- (a) Weak insulin sensitizer
  - (b) Improve insulin resistance
  - (c) Improve endothelial resistance
  - (d) Indicated in CHF
- 314. Thiazalidinediones have all the following advantages except**
- (a) Potent insulin sensitizer

- (b) Improves endothelial function
- (c) Benefit cardiovascular system
- (d) Contraindicated in NYHA III IV

**315. Most common cardiac manifestation of cardiac sarcoidosis is**

- (a) Ventricular arrhythmia
- (b) CHB
- (c) RBBB
- (d) LBBB

**316. Which is most sensitive parameter for detection of HIV associated myocarditis?**

- (a) Increase of troponin I
- (b) Increase of Ck-MB
- (c) ST elevation
- (d) Ventricular ectopics

**317. Which is most specific parameter for detection of HIV associated myocarditis?**

- (a) ST elevation
- (b) Increase in Troponin I
- (c) Increase in CKMB
- (d) Ventricular ectopics

**318. Most important side effect reported during 1<sup>st</sup> month of interferon  $\alpha$  treatment**

- (a) Injection site reaction
- (b) Arthralgia
- (c) Dyspnaea
- (d) Angina

**319. All of the following drugs may cause post operative encephalopathy except**

- (a) Haloparidol
- (b) Narcotics
- (c) Sedatives
- (d) Nitrous oxide

**320. All are endoscopic manifestation of cardiac disease except**

- (a) Villous hypertrophy
- (b) Ulcers
- (c) Strictures
- (d) Adenocarcinoma

- 321. All of the following are protective effects on cardiovascular system of metformin therapy except**
- (a) Improved diastolic function
  - (b) Decreased total cholesterol
  - (c) Increased HDL cholesterol
  - (d) Increased platelet aggregation
- 322. All of the following drugs are safe in curing torch infection during pregnancy except**
- (a) Penicillins
  - (b) Cephalosporins
  - (c) Nitrofurantoin
  - (d) Amioglycosides
- 323. Colostrum contains all the following except**
- (a) Cytokines
  - (b) Interleukin  $1\alpha$
  - (c) Tumour necrosis factor
  - (d) Interleukin II
- 324. All of following are laboratory findings in acute mesenteric ischemia except**
- (a) Leucopenia
  - (b) Metabolic acidosis
  - (c) Increased serum lipase
  - (d) Increase amylase
- 325. All of the following cardiac conditions are associated with blue sclera except**
- (a) Osteogenesis imperfecta – aortic regurgitation
  - (b) Marfan's syndrome – great vessel aneurysm
  - (c) Ehler's danlos syndrome – aorta
  - (d) Down syndrome
- 326. All of the following viruses are commonly involved in myocarditis except**
- (a) Adenoviruses
  - (b) Coxsackie virus B
  - (c) Echo viruses
  - (d) Mumps
- 327. Which is most common ECG abnormality in chagas disease is?**
- (a) PR prolongation
  - (b) RBBB
  - (c) LBBB
  - (d) CHB
- 328. Which valvular dysfunction is common in ankylosing spondylitis?**

- (a) Aortic regurgitation
- (b) Mitral regurgitation
- (c) Mitral stenosis
- (d) Aortic stenosis

**329. How common are cardiac manifestation of ankylosing spondylitis?**

- (a) < 1%                      (b) 1%
- (c) 1-2%                      (d) 3-10%

**330. All are cardiac features of GERD except**

- (a) Atypical chest pain
- (b) Arrhythmias
- (c) Ischemia
- (d) Hypertension

**331. Smoking cessation is most effective in men in which age group in improving life expectation?**

- (a) 35-30 years              (b) 40-44 years
- (c) 45-49 years              (d) 65-69 years

**332. Which of the following doesn't cross placenta during pregnancy?**

- (a) Heparin
- (b) Aspirin
- (c) Oral anticoagulants
- (d) None of the above

**333. All are metabolic causes of myocarditis except**

- (a) Hypocalcaemia
- (b) Hypophosphatemia
- (c) Carnitine
- (d) Hypercalcemia

**334. Hypoxia causes all the following except**

- (a) Cyanosis                      (b) Polycythemia
- (c) Heart failure              (d) CVA

**335. Standard heparin has all following features except**

- (a) Don't in activate clot bound thrombin
- (b) Increases vascular permeability
- (c) Thrombocytopenia occurs
- (d) Liver toxicity uncommon

- 336. Low molecular weight heparin has all the following features except**
- (a) Don't inactivate clot bound thrombin
  - (b) Vascular permeability is increased
  - (c) Thrombocytopenia is rare
  - (d) Liver toxicity is uncommon
- 337. Low molecular weight heparin has all the following features except**
- (a) Increase molecular weight 4000–6500 Dalton
  - (b) Platelet inhibition is more
  - (c) Renal clearances is more
  - (d) Given subcutaneously
- 338. Standard heparin has all the following features except**
- (a) Molecular weight is 12000–15000
  - (b) Platelet inhibition is more
  - (c) Renal clearances is more
  - (d) Given intravenously
- 339. Commonest malignant cardiac tumour is**
- (a) Angiosarcoma
  - (b) Rhabdomyosarcoma
  - (c) Fibrosarcoma
  - (d) Malignant lymphoma
- 340. Chief composition of heart consist of**
- (a) Water
  - (b) Fat
  - (c) Protein
  - (d) Carbohydrate
- 341. Most common tissue fraction LV is**
- (a) Cells
  - (b) Interstitium
  - (c) Capillaries
  - (d) Arteries and veins
- 342. Which is the largest organ in the body?**
- (a) Brain
  - (b) Kidney
  - (c) Spleen
  - (d) Endothelium
- 343.  $PCO_2$  is decreased in all the following except**
- (a) Cardiogenic shock
  - (b) Acute pulmonary embolism
  - (c) Diabetic ketoacidosis
  - (d) L–R shunts
- 344. Which cardiac drug produces osteoporosis with long use?**

- (a)  $\beta$ -Blockers (b) Aspirin  
(c) Dipyridamole (d) Heparin

**345. Which cardiac drug produces pulmonary fibrosis?**

- (a) Phenyntion (b) Quinidine  
(c) Amiodarone (d) Digoxin

**346. Commonest heart disease between 10–30 years is**

- (a) Congenital heart disease  
(b) Rheumatic heart disease  
(c) Coronary artery disease  
(d) Hypertension

**347. Which cardiac disease is rare in females of child bearing Age?**

- (a) Rheumatic heart disease  
(b) Post partum cardiomyopathy  
(c) Coronary heart disease  
(d) Hypertension

**348. Type of surgery which has high risk of cardiovascular events**

- (a) Thoracic (b) Abdominal  
(c) Head and neck (d) Breast

**349. Type of surgery which has intermediate risk of cardiovascular events**

- (a) Vascular (b) Abdominal  
(c) Eye (d) Gynecologic

**350. Type of surgery which has lowest risk of cardiovascular events**

- (a) Breast (b) Abdominal  
(c) Vascular (d) Head and neck

**351. Commonest cause of death at high altitudes**

- (a) Cold exposure  
(b) Fall  
(c) High altitude pulmonary edema  
(d) High altitude cerebral edema

**352. All the following drugs cause pedal edema except**

- (a) Pioglitazones (b) Calcium blockers  
(c) Minoxidil (d) Hydralazine

- 353. Lithium use during pregnancy may cause which disease?**
- (a) ASD
  - (b) VSD
  - (c) PDA
  - (d) Ebsten's disease
- 354. Which of the following cardiac drug cause fatigue?**
- (a)  $\alpha$ -methyldopa
  - (b) Ca-blockers
  - (c) ACE inhibitors
  - (d) Angiotension receptor blocker
- 355. All drugs causes autonomic failure except**
- (a) Phenothiazine
  - (b) Nitrates
  - (c) Ca-blockers
  - (d)  $\mu$ -Blockers
- 356. All of the following metabolic diseases may cause autonomic failure except**
- (a) DM
  - (b) Porphyria
  - (c) B12 deficiency
  - (d) Fe deficiency
- 357. All of the following disease may arise during pregnancy except**
- (a) Hypertension
  - (b) Peripartum CMP
  - (c) Pulmonary embolism
  - (d) Pericarditis
- 358. Renovascular murmur is heard at all places except**
- (a) Beneath costal margins anteriorly
  - (b) Lateral to aorta
  - (c) Lumber spine
  - (d) Epigastrium
- 359. Which region of heart is most commonly involved by metastasis?**
- (a) Pericardium
  - (b) Mural endocarditis
  - (c) Valvular endocarditis
  - (d) Myocardium
- 360. Which is most sensitive ECG finding cardiac amyloidosis?**
- (a) ST/T changes
  - (b) High voltages of QRS

- (c) QT prolongation
- (d) Q waves

**361. Most common cardiac involvement in malignant lymphoma is**

- (a) Pericardial
- (b) Myocardial
- (c) Coronaries
- (d) Endocardial

**362. Which storage disease of myocardium produces valvular calcification?**

- (a) Gaucher's disease
- (b) Horner's syndrome
- (c) Fabry's disease
- (d) Glycogen storage disease

**363. Which storage disease of myocardium produces mitral stenosis?**

- (a) Fabry's disease
- (b) Horner's syndrome
- (c) Glycogen storage disease
- (d) Gaucher's disease

**364. Which storage disease of myocardium produces aortic stenosis?**

- (a) Fabry's disease
- (b) Hurler's syndrome
- (c) Glycogen storage disease
- (d) Gaucher's disease

**365. Pulmonary edema frequently occurs during pregnancy with MS at which Time?**

- (a) 15 weeks of gestation
- (b) 30 weeks of gestation
- (c) 25-27 weeks of gestation
- (d) > 30 weeks of gestation

**366. Human embryonic stem cell have all following properties except**

- (a) Pluripotent
- (b) Selfremoval
- (c) Rejection occurs
- (d) Teratiforms occurs

**367. Atypical presentation of IDH occurs in all the following except**

- (a) Elderly
- (b) Hypertension
- (c) Diabetic
- (d) Young

- 368. All the following cardiac lesions are associated with blue sclera except**
- (a) Aortic regurgitation
  - (a) Mitral regurgitation
  - (c) TOF
  - (d) Aortic stenosis
- 369. Xanthomas are located all following places except**
- (a) Eyelids
  - (b) Planter tendon
  - (c) Extensor tendons of hand
  - (d) Palmar tendons
- 370. Oval hemorrhage near disc with white spot at center on fundus examination indicates**
- (a) Hypertension
  - (b) Increased intracranial pressure
  - (c) Atherosclerosis
  - (d) Infective endocarditis
- 371. In Rubella syndrome pulmonary stenosis is at which location?**
- (a) Valvular
  - (b) Subvalvular
  - (c) Branch stenosis
  - (d) All of them
- 372. Which cardiac lesion does not occur with argyll-robertson pupil?**
- (a) Coronary artery stenosis
  - (b) Aortic stenosis
  - (c) Aortic regurgitation
  - (d) Aortic aneurysm
- 373. Eating disorders to lose weight can result in following cardiac changes except**
- (a) ST/T wave changes
  - (b) Prolonged QT interval
  - (c) Cardiomyopathy
  - (d) Coronary artery disease
- 374. All are major risk factors for non-cardiac surgery in cardiac disease except**
- (a) Severe aortic stenosis
  - (b) Recent myocardial infarction < 3 months
  - (c) Decompensated heart failure
  - (d) Abnormal ECG

- 375. All are patient related risk factors for venous thromboembolism (VTE) except**
- (a) Previous VTE
  - (b) Pregnancy
  - (c) Varicose veins
  - (d) Age < 40 years
- 376. All are common major risk factor in for VTE except**
- (a) Malignancy
  - (b) Major Trauma
  - (c) Paralysis
  - (d) Heparin Induced Thrombocytopenia
- 377. Common major risk factor related to patient is for VTE**
- (a) Preview VTE
  - (b) Peripartum
  - (c) Varicose vein
  - (d) Obesity
- 378. Massive pulmonary embolism causes all following haemodynamic changes except**
- (a) Right atrial pressure is increased
  - (b) Right ventricular volume in increased
  - (c) Systolic vascular resistance is increased
  - (d) LV volume is increased
- 379. Hemorrhagic shock causes all the following changes except**
- (a) RA pressure fall
  - (b) LA pressure falls
  - (c) Cardiac output falls
  - (d) RV volume increase
- 380. Anaphylactic shock causes all the following haemodynamic changes except**
- (a) RA pressure decrease
  - (b) LA pressure increase
  - (c) LV volume decrease
  - (d) RV volume decrease
- 381. Which drug does not decrease preload?**
- (a) Isosorbid dinitrate
  - (b) Hydralazine
  - (c) ACE inhibitor
  - (d) Prazosin
- 382. Use of beta-blocker during pregnancy causes all except**
- (a) Fetal bradycardia
  - (b) Fetal hypoglycemia
  - (c) IUGR
  - (d) Congenital heart disease

- 383. Cardiac contractility is increased by which of the following agent?**
- (a) Halothane                      (b) Enflurane  
(c) Isoflurane                      (d) Gall amine
- 384. Coronary blood flow is increased by all except**
- (a) Enflurane                      (b) Isoflurane  
(c) Thiopental                      (d) Halothane
- 385. Heart rate is increased by all following except**
- (a) Enflurane                      (b) Isoflurane  
(c) Succinyl choline              (d) Fentanyl
- 386. Which is the commonest heart disease in india?**
- (a) Hypertension                  (b) IHD  
(c) CMP                              (d) Cor pulmonale
- 387. Most common cause of death in chronic renal failure is**
- (a) Heart failure  
(b) Myocardial infarction  
(c) Sepsis  
(d) CVA

**ANSWERS**

1. (d)    2. (b)    3. (c)    4. (a)    5. (c)  
6. (d)    7. (c)    8. (d)    9. (d)    10. (a)  
11. (d)    12. (d)    13. (d)    14. (a)    15. (d)  
16. (d)    17. (a)    18. (d)    19. (b)    20. (b)  
21. (d)    22. (d)    23. (b)    24. (c)    25. (d)  
26. (b)    27. (d)    28. (d)    29. (d)    30. (c)  
31. (c)    32. (c)    33. (b)    34. (a)    35. (c)  
36. (a)    37. (b)    38. (c)    39. (a)    40. (c)  
41. (a)    42. (e)    43. (d)    44. (c)    45. (e)  
46. (e)    47. (a)    48. (e)    49. (d)    50. (d)  
51. (a)    52. (c)    53. (a)    54. (d)    55. (b)  
56. (b)    57. (d)    58. (d)    59. (d)    60. (b)  
61. (b)    62. (b)    63. (a)    64. (d)    65. (d)  
66. (c)    67. (c)    68. (c)    69. (d)    70. (c)  
71. (b)    72. (b)    73. (d)    74. (c)    75. (a)  
76. (b)    77. (d)    78. (d)    79. (d)    80. (d)  
81. (a)    82. (a)    83. (d)    84. (d)    85. (b)  
86. (c)    87. (d)    88. (c)    89. (d)    90. (a)  
91. (d)    92. (d)    93. (d)    94. (c)    95. (b)  
96. (a)    97. (b)    98. (d)    99. (a)    100. (c)  
101. (d)    102. (a)    103. (d)    104. (c)    105. (d)  
106. (d)    107. (d)    108. (a)    109. (d)    110. (d)  
111. (b)    112. (d)    113. (d)    114. (d)    115. (a)  
116. (a)    117. (d)    118. (d)    119. (d)    120. (d)  
121. (a)    122. (c)    123. (c)    124. (b)    125. (c)  
126. (a)    127. (a)    128. (d)    129. (a)    130. (d)  
131. (d)    132. (d)    133. (a)    134. (d)    135. (d)  
136. (d)    137. (d)    138. (d)    139. (d)    140. (c)  
141. (d)    142. (a)    143. (d)    144. (c)    145. (a)  
146. (a)    147. (c)    148. (d)    149. (d)    150. (d)  
151. (b)    152. (d)    153. (b)    154. (a)    155. (a)  
156. (a)    157. (a)    158. (b)    159. (d)    160. (a)

161. (d) 162. (c) 163. (d) 164. (d) 165. (c)  
166. (a) 167. (d) 168. (d) 169. (a) 170. (d)  
171. (d) 172. (d) 173. (a) 174. (a) 175. (a)  
176. (d) 177. (d) 178. (d) 179. (c) 180. (b)  
181. (d) 182. (d) 183. (d) 184. (c) 185. (b)  
186. (a) 187. (d) 188. (a) 189. (c) 190. (a)  
191. (d) 192. (d) 193. (b) 194. (d) 195. (c)  
196. (a) 197. (d) 198. (d) 199. (d) 200. (d)  
201. (a) 202. (d) 203. (b) 204. (a) 205. (a)  
206. (d) 207. (c) 208. (a) 209. (c) 210. (b)  
211. (a) 212. (d) 213. (b) 214. (d) 215. (d)  
216. (d) 217. (d) 218. (d) 219. (d) 220. (d)  
221. (d) 222. (d) 223. (d) 224. (b) 225. (a)  
226. (a) 227. (d) 228. (b) 229. (d) 230. (d)  
231. (a) 232. (d) 233. (d) 234. (d) 235. (c)  
236. (b) 237. (d) 238. (a) 239. (d) 240. (d)  
241. (c) 242. (d) 243. (a) 244. (d) 245. (b)  
246. (a) 247. (a) 248. (c) 249. (a) 250. (a)  
251. (c) 252. (d) 253. (c) 254. (a) 255. (c)  
256. (a) 257. (b) 258. (d) 259. (a) 260. (d)  
261. (b) 262. (c) 263. (d) 264. (c) 265. (d)  
266. (d) 267. (d) 268. (b) 269. (d) 270. (d)  
271. (d) 272. (c) 273. (a) 274. (b) 275. (c)  
276. (d) 277. (b) 278. (c) 279. (d) 280. (d)  
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