Ethiopian TVET System

Animal Health Care Service Level -I

Training Module –Learning Guide 21-23

Based on Version 3 March 2018

Occupational Standard (OS)

Unit of Competence: Support animal care cleaning activities

Module Title: Supporting animal care cleaning Activities

TTLM Code: AGR HC1 TTLM7 09 19v1

October 2019

Module Title: - Supporting animal care cleaning Activities

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This module includes the following Learning Guides

LG21: Prepare materials, tools and equipment For cleaning activities

(LG Code: AGR HC1 M7 LO1-LG- 21

LG22: Undertake cleaning activities as directed.

(LG Code: AGRHC1 M7 LO2-LG-22

LG23: Clean up on completion of cleaning activities

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Instruction Sheet	Learning Guide 21 #-

This learning guide is developed to provide you the necessary information regarding the following **content coverage** and topics –

- Identifying the requiring materials, tools and equipment for cleaning activities
- Checking and reporting insufficient materials, tools and equipment.
- Using correct manual handling technique when loading and unloading materials to minimize damage.
- selecting and checking suitable personal protective equipment (PPE) prior to use
- Identifying and reporting OHS hazards in the workplace to supervisors.

This guide will also assist you to attain the learning outcome stated in the cover page. Specifically, upon completion of this Learning Guide, you will be able to –

- Identify the requiring materials, *tools and equipment* for cleaning activities according to lists provided and or supervisors' *relevant instructions*
- Check and report insufficient materials, tools and equipment are reported to supervisor
- Use correct manual handling technique when loading and unloading materials to minimize damage.
- Select and check suitable *personal protective equipment*(PPE) prior to use
- Identify and report *OHS hazards in the workplace to supervisor.*

Learning Instructions:

Learning Instructions:

1. Read the specific objectives of this Learning Guide.
2. Follow the instructions described below 3 to 6.
3. Read the information written in the information "Sheet 1, Sheet 2, Sheet 3 and Sheet 4".
4. Accomplish the "Self-check 1, Self-check t 2, Self-check 3 and Self-check 4" in page -6, 9, 12 and 14 respectively.
5. If you earned a satisfactory evaluation from the "Self-check" proceed to "Operation Sheet 1, Operation Sheet 2 and Operation Sheet 3 " in page -15.

6. Do the “LAP test” in page – 16 (if you are ready).

Information Sheet-1	**Identifying the requiring materials, *tools and equipment*for cleaningactivities**

1. Cleaning

Cleaning is the most important step in the disinfection process. If an item or material is not adequately cleaned, the application of disinfectant is a waste of time and money because soil (manure, dirt, secretions, and excretions) cannot be disinfected.

1.1Tool: A tool can be any item that is used to achieve a goal.

1.2 **Equipment**: usually denotes a set **of tools** that are used to achieve a specific objective. A **tool** can be non-mechanical as well. However, when one says **equipment**, there is a certain mechanical aspect to it that cannot be ignored

1.3Basic tools and equipment’s for animal care and cleaning activities

Broom

- A **broom** is a cleaningtool consisting of stiff fibers attached to, and roughly parallel to, a cylindricalhandle, the **broomstick**. It is commonly used in combination with a dustpan.

Dustpan

- A **dustpan** is a cleaning tool commonly used in combination with a broom. The dustpan may appear to be a type of flat scoop. It is often hand held for home use, but industrial and commercial enterprises often use a hinged variety on the end of a stick to prevent the user from constantly stooping to use it.

Bucket

- A **bucket**, also called a **pail**, is typically a watertight, vertical cylinder or truncatedcone, with an open top and a flat bottom, usually attached to a semicircular carrying handle called the *bail*. A pail can have an open top or can have a lid.

Mop

- **Mop** (such as a **floor mop**) is a mass or bundle of coarse strings or yarn, etc., or a piece of cloth, sponge, or other absorbent material, attached to a pole or stick. It is used to soak up liquid, forcleaning floors and other surfaces, or to mop up dust, or for other cleaning purposes.
  - Water
  - High- and low-pressure sprayer,
  - Power or fuel for sprayer

Vacuum cleaner:

- A device that uses an air pump to create a partial vacuum to suck up dust and dirt

Water **Hoses**:

- Hollow tubes designed to carry fluids from one location to another.

Sponge

- Characterized by readily absorbing water and becoming soft when wet while retaining toughness

Dishcloth

- Used in the kitchen to dry dishes and other surfaces

Cleaning cloth

- Used to wipe the cleaning tools and equipment

Disposal pits

- A disposal **pit** is a way of **disposing** of household waste by burying it, after it has been reduced or recycled as much as possible. This helps prevent contamination of water supplies and breeding of flies and rats which may spread disease to people in the community.

2. Disinfectant

A disinfectant is a physical agent or chemical agent that destroys vegetative forms of harmful micro-organisms, usually on inanimate objects but sometimes on the coat or hooves of animals. It is important to note that not all agents work against all microorganisms and that most disinfectants are likely to be less effective against spores.

2.1 What to Consider When Choosing Your Disinfectant

There are four primary considerations you should evaluate when choosing a disinfectant to best meet the needs of your facility.

Effectiveness:

- Does a disinfectant kill the microbes and pathogens that are of top concern in your facility?

Kill Time:

- How quickly does a disinfectant product kill a specific pathogen? Does the product keep surfaces visibly wet in order to comply with these kill times.

Safety

- Is the product safe to use for people and safe for the surfaces it is being applied to?

Ease of Use

- Are the steps required to use a given disinfectant practical for your facility?

3. Detergents

Detergents are chemicals that are used to remove grease, dirt and food debris, such as soaps and washing-up liquid. They help us to clean by helping to dissolve and remove the contamination and hold it in solution. However, these are not designed to kill pathogens.

3.1Different types of detergent

1. Powder detergents are more effective than **liquid detergents** but liquid ones are more gentle on fabric and best for cleaning lightly soiled clothes. Detergents are also available in a **cake form**.

2 Soaps

Image by B_A from Pixabay

Soap is a biodegradable cleaning agent (fatty acid salts) made by combining fats (animal or vegetable) with Lye (Sodium Hydroxide).

3. Home remedies

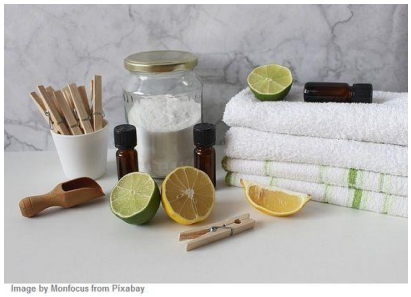


Image by Monfocus from Pixabay

Baking soda, washing soda, Lime, Vinegar, Hydrogen Peroxide – there are many home remedies that we regularly use to clean things. Most of them can be used for clothes too. Dishwashing liquid is used as a spot stain remover, especially for oily stains.

4. Conventional Detergent:

Conventional Laundry detergent, like any other household product, can contain toxic chemicals and even carcinogens. The conventional detergents use chemicals to bring fragrance, the cleaning agents to make the laundry cleaner, the stabilizers to stabilize their shelf life, and bleach, brighteners and phosphates to make the detergents more

4. Liquid detergents:

Liquid detergents work great with water, especially in cold water. Before washing the clothes, they can easily be used to pre-treat stains also. However, the limitation with them is that being liquid, they can easily be overused and their packaging also creates more waste.

Self-Check -1	Written Test

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

Define

1. Disinfectant? (1 point)
2. Detergents (1pt)
3. Tools and (1pt)
4. Equipment (1 point)
5. List 6 tools and equipment used for cleaning activities (6)

Note: **Satisfactory rating - 10 points** **Unsatisfactory - below 10 points**

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Name: _____ Date: _____

Short Answer Questions

Operation Sheet 1	Identifying the requiring materials**, *tools and equipment*for cleaningactivities**

Part 1

1. Prepare and identify cleaning materials for cleaning activities.

- Tools
- Equipment
- Detergents and
- Disinfectants

Part 2

Basic Steps of a Cleaning and Disinfection Protocol

There are proper procedures to follow in order to increase the efficiency of the C&D process. If surfaces are not properly cleaned, the disinfection process is ineffective. The basic steps of C&D include:

1) Remove all visible gross contaminants from people, vehicles, and all equipment.
2) Apply detergent solution onto the surface and allow sufficient time for the detergent to disperse. This allows for the breakdown of the different components of accumulated grime such as fat, protein, and manure.
3) Thoroughly rinse the surface using a hose or pressure washer while preventing cross contamination of clean surfaces. Residual detergent may interact unfavorably with the applied disinfectant.
4) Apply a standard-registered disinfectant to inactivate disease agents. Follow all safety precautions and use directions specified on the product label. The disinfectant must be left on surfaces for the required contact time per the label instructions.

Information Sheet-2	Checking and reporting insufficient materials, tools and equipment.

2. Insufficient materials

Insufficient materials, tools and equipment ordefective tools can cause serious and painful injuries. If a tool is insufficient in some way, check it after use.

- **Emptying**

Not all pieces of equipment need emptying; however garbage receptacles and vacuum cleaners need to be emptied regularly. Other pieces of equipment may need to be emptied of chemicals or other liquids before they are stored, eg floor scrubbers. Manufacturers' instructions should be followed carefully to ensure that equipment is maintained properly and remains safe for future use.

- **Dismantling and reassembling**

Dismantling equipment allows it to be meticulously cleaned – improving its effectiveness and often extending its life. It is important that all staff involved in this stage are fully trained to prevent damage to the equipment and reduce the risk of them injuring themselves.

- **Wiping over, washing and rinsing**

At the end of the business day, each piece of equipment should be wiped over and where appropriate washed and rinsed to prevent buildup of grime. Some items of equipment may also need to be dismantled before they are washed and rinsed.

- **Sanitizing and drying**

Any area that is in contact with bacteria must be sanitized. Sanitizing reduces the harmful bacteria. Before cleaning any area you should know which areas need to be sanitized and what chemicals are safe to be used. After equipment or work areas are sanitized they need to be dried. This can be done by either allowing them to air dry or drying them with a towel. Air-drying is safe if the equipment is left in a well-ventilated area so the drying process is quick.

Small pieces of equipment can also be dried by washing them in a dishwasher which has a drying cycle.

Knives and scissors should be hand washed and towel-dried before storing. Eating Pots and calf pans should be hand washed and then hung up on hooks or placed on wire racks to dry.

- **Routine maintenance**

Every organization should have a maintenance schedule for items of equipment, which specifies when each item of equipment should be checked for maintenance. It is important that this schedule includes cleaning equipment and that all items of cleaning equipment are regularly checked for damage. Sub-standard cleaning equipment increases the risk of a breach and in the organization's hygiene standards.

Self-Check -2	Written Test

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. What is the importance of checking cleaning materials? (3 points)
2. Write the stapes of checking cleaning materials (5 points)

Note: **Satisfactory rating – 3 and 5 above points Unsatisfactory - below 3 and 5 points**

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Name: _____ Date: _____

Short Answer Questions

Information Sheet-3	Using correct manual handling technique when loading and unloading materials to minimize damage.

3. Handling techniques when loading and unloading materials

3.1 Material handling equipment

- Material handling equipment is designed to move, store, retrieve, and control raw materials and finished goods.
- Although material handling equipment is not used for processing, packaging or labeling, this category covers tools and containers as well as devices for preparing, loading, securing, moving, and unloading material.
- Types of material handling equipment include transportation equipment, positioning equipment, load formation equipment, and storage and retrieval equipment
- Transport equipment is a broad category of material handling equipment for moving good and materials from one location to another.
- Positioning equipment for material handling is used to move and position loads.
- These material handling systems consist of components such as belts, controls, chains, rollers, and sprockets. Industrial cranes are designed to raise and lower loads. Industrial trucks range from hand trucks and pallet jacks to automatic guide vehicles (AGVs) and order pickers.

3.1. Loading and unloading equipment

- When loading or unloading equipment, the work area shall be clear.
- When loading or unloading from a truck, the brakes will be applied and wheel chocks shall be placed.
- When unloading from a trailer, chock and lock the trailer legs.
- When unloading or loading materials using hoisting equipment, tag lines shall be used to guide materials onto trucks or off trucks.
- When backing to unload materials or load materials, a person shall be used to guide the truck into place.
-

Self-Check -3	Written Test

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. What is the purpose of correct manual handling when loading and unloading materials ? (3 points)
2. List some Handling techniques when loading and unloadingmaterials (5 points)

Note: **Satisfactory rating – 3 and 5 above points Unsatisfactory - below 3 and 5 points**

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Name: _____ Date: _____

Short Answer Questions

Information Sheet-4	Selecting and checking suitable personal protective equipment (PPE) prior to use

4. How to select and check suitable PPE prior to use.

- Workers must alert supervisors of hazards in the workplace and must wear the appropriate PPE to protect themselves from any hazards.
- Personal protective equipment (PPE) is used by workers in various work settings. Gloves, hard hats, safety glasses, ear plugs, aprons, laboratory coats, safety shoes, and respirators are all examples of PPE.
- When a hazard cannot be removed from the workplace, or when engineering controls are insufficient to control the hazard, PPE must be considered. PPE does not eliminate hazards from the workplace but places a barrier between the worker and the hazard. If the PPE fails or is not used properly, the worker will be exposed.
- There is a large variety of PPE available. It can range from simple safety glasses to full body suits. The selection and proper use of PPE is vital to health and safety on the job. The following is a current list of PPE recommended for use

4.1 Minimum Requirements

All employees entering work areas are required to abide by the following minimum requirements, depending on the work activity in which they are involved:

- Full length pants
- Long or short sleeved shirts (no tank tops)
- Footwear that covers the toes
- Long hair tied securely back
- Respiratory protection, if required
- Removal of all jewelry when using barrier protection
- Protective gloves required for activities where potential for hand injury exists
- Hearing protection if there is a potential for noise exposure.
-

Self-Check - 4	Written Test

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. How to select personal protective equipment prior to use and why? (6 points)

Note: Satisfactory rating - 6 points **Unsatisfactory - below 6 points**

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Name: _____ Date: _____

Short Answer Questions

Information Sheet- 5	Identifying and reporting *OHS hazards in the workplace* to supervisors.

1. Identifying Hazards and reporting to supervisors

- The hazards described here are commonly encountered in workplaces where animals are housed and/or treated: these include veterinary practices, wildlife sanctuaries and parks, zoos, animal shelters, stables, boarding facilities, pet shops.
- Working with animals can be dangerous business!
  - ✓ Physical and chemical hazards
  - ✓ Protocol related hazards
  - ✓ Allergens
  - ✓ Zoonotic diseases

Hazard	**Possible Harmful Effects**	**Possible Employer Action to Prevent Injury / Illness**	Preventative Action Students Can Take
Animals *Even usually placid animals may inflict injury if under stress or in pain.* *Animal behaviour is difficult to predict and may change without warning*	Bites, mauling, scratches (smaller animals) *and* Impact injuries such as fractures, crushing, bruising (larger animals)	Allow only□ experienced and trained staff to handle or restrain animals Instruct□ staff in safe animal handling, including recognizing 'warning' signs Label□ cages where an animal's behavior gives reason for concern Provide□ personal protective clothing	• *Students must NOT handle animals unless the animal and the task have been assessed by their supervisor* • Don't approach any animal unless assured by your supervisor that it's safe
Autoclaves / sterilizers	Burns, scalding from steam	Ensure□ that only trained and experienced staff	• *Students must NOT be exposed to any dangerous*

		operate autoclaves Ensure regular plant maintenance	*plant or equipment*
Animal enclosures, stalls and cages	Cuts from metal edges, manual handling injury, risk of infection and disease if areas housing animals are not frequently cleaned and disinfected	Ensure regular cleaning and maintenance Assess manual handling and redesign cages to minimize risk Provide wash-up facilities, instruct staff in personal hygiene	• Don't open enclosures, stalls or cages for any purpose unless the task (and the animal) has been assessed by your supervisor • Wear gloves when cleaning
Hazardous substances (drugs used in treatment, anaesthetics, cleaning chemicals)	Cytotoxic (cancer treating) and other drugs can cause illness. Short-term effects can include nausea, headaches	Follow strict handling, labelling and storage procedures for all hazardous substances Provide protective clothing (such as gloves) for staff	• Students must not medicate animals or handle any drugs used in animal treatment • Wear rubber gloves when using cleaning chemicals
Hazardous waste (soiled towels, swabs, syringes *etc*.)	Infectious diseases, cuts or 'needle stick' injuries; irritation to skin, eyes, nose or throat	Treat all waste as hazardous Arrange for safe disposal into labelled containers Provide gloves where needed	• Wear rubber gloves when handling soiled material • Don't handle syringes • Adopt good hygiene practices
Housekeeping	Slips, trips and falls as a result of slippery surfaces or things left on the floor or on the	Ensure that spills are cleaned immediately Keep work areas	• Follow procedures for cleaning up spills • Report any spills

	ground	clear of items that could present impact hazards	or obstacles
Manual handling	Musculoskeletal injuries (sprains and strains)	Assess every manual handling task Use mechanical aids or team lifts Train workers in manual handling	• Don't attempt any task if you think it may be difficult to do safely – ask for help!
X-rays (radiation)	Significant health risks, including cancers	Minimize potential for exposure to X-rays during radiography	• *Students must NOT be exposed to radiography processes*
Zoonoses (diseases caught from animals)	Diseases including hydatid disease, ringworm, Q fever	Minimize potential for zoonotic infections – training, safe work practices, vaccination	• Always wash up after contact with animals • *Students must NOT enter any workplace where Q fever has been reported*
Cuts	Infection	Ensure tasks with potential risk of cuts are assessed Provide protective gloves Provide appropriate washing facilities	• Wear protective gloves • Wash hands immediately • Seek first aid immediately if needed
Allergies to animals or insects (*or* to animal feeds such as grasses)	Allergic reactions: asthma or other respiratory illness, skin reactions	Document any known allergies among staff members Prevent or minimize exposure –	• Follow safe working procedures • Report any suspected allergic reaction to your

		procedures must be established and followed by all workers Provide protective clothing	supervisor, without delay
Sexual harassment, work place bullying	Emotional stress, fear and anxiety, physical illness	Establish work place policy Provide staff briefings or training	• Report any concerns immediately

Self-Check -5	Written Test

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. Define zoonosis Diseases (1point)
2. List some possible harmful effects ofHazardous waste? (4 points)

Note: **Satisfactory rating – 1and 4 above points Unsatisfactory - below 1 and 4 points**

You can ask you teacher for the copy of the correct answers

Score = _____

Rating: _____

Answer Sheet

Name: _____ Date: _____

Short Answer Questions

Instruction Sheet	Learning Guide 22 #-

This learning guide is developed to provide you the necessary information regarding the following **content coverage** and topics –

- Following instruction and directions provided by supervisors
- undertaking cleaning activities in safe and environmentally appropriate manner
- Carrying out Interaction with others staffs in a positive and professional manner.
- Observing organisational policies, procedures in relation to workplace practices and handling disposal of materials.
- Reporting problems or difficulties in completing work
- Storing waste material produced during ***cleaning activities*** designated area.

This guide will also assist you to attain the learning outcome stated in the cover page. Specifically, upon completion of this Learning Guide, **you will be able to**

- Follow instruction and directions provided by supervisors and clarification is sought when necessary.
- Undertake cleaning activities in safe and environmentally appropriate manner according to organisational guidelines.
- Carry out Interaction with others staffs in a positive and professional manner.
- Observe organisational policies, procedures in relation to workplace practices and handling disposal of materials.
- Reporting problems or difficulties in completing work to supervisor.
- Storing waste material produced during ***cleaning activities*** designated area according to supervisors' instructions.

Learning Instructions:

1. Read the specific objectives of this Learning Guide.
2. Follow the instructions described below 3 to 6.
3. Read the information written in the information "Sheet 1, Sheet 2, Sheet 3 and Sheet 4".

4. Accomplish the “Self-check 1, Self-check t 2, Self-check 3 and Self-check 4” in page -6, 9, 12 and 14 respectively.
5. If you earned a satisfactory evaluation from the “Self-check” proceed to “Operation Sheet 1, Operation Sheet 2 and Operation Sheet 3 ” in page -15.
6. Do the “LAP test” in page – 16 (if you are ready).

Information Sheet-1	Following instruction and directions provided by supervisors

1. **Following instructions**

Following **instructions** can preserve one's health and wellbeing, and it is a necessary skill for a quality life. Rules are necessary for every well-functioning society. Professionals that do not **follow instructions** place themselves and other people at a greater risk for injury and death.

The importance of following instructions in the workplace

That is why rules and instructions are made, so our world can run smoothly and become a better place. It is very important to follow instructions and rules in your workplace, because without directions, and the ability to obey given rules/instructions, many unnecessary or unwarranted side effects may occur.

1.1. STEPS of following instructions

Actively listen

- Try to listen intently, not just hear. When you actively listen, you can better understand what you need to do. Here's a trick that may help: pretend that there is going to be a quiz after the conversation. Visually think about what's being said and maybe even repeat it in your head.

Take notes

- Instead of trying to remember everything, write it down. There's nothing wrong with keeping notes; it shows that you are prepared, organized and want to do the job correctly.

Ask questions

- If you are even slightly unsure of what you are being asked to do, don't be afraid to question. Make sure the other person allows you the chance to find out all the needed details to move forward.

Respond with a good attitude

- Just as the person giving directions needs to speak respectfully, it's important to respond respectfully. If you go into the conversation with a bad attitude, it's likely that performing the task will be much more challenging.

Before starting the task, make a checklist

- Whenever there is a job that requires multiple steps, try organizing a to-do list. Check things off as you go to make sure you don't miss anything. Then when you're done, be sure to review your work.

Overall, positive communication and listening are essential when giving and taking instructions. For some jobs, following step-by-step directions is pertinent, but in the case of working in an office, warehouse, restaurant, etc., learning how to provide direction properly and knowing how to take direction make for a smoother and more productive work environment.

Self-Check -1	Written Test

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. The importance of following instructions in the workplace (5 point)

Note: **Satisfactory rating – 5 above points** **Unsatisfactory - below 5 points**

You can ask you teacher for the copy of the correct answers.

Score = _____

Rating: _____

Answer Sheet

Name: _____ Date: _____

Short Answer Questions

Information Sheet- 2	undertaking cleaning activities in safe and environmentally appropriate manner

2. Cleaning procedures in animal care cleaning activities

2.1 Basic Steps of a Cleaning and Disinfection Protocol

There are proper procedures to follow in order to increase the efficiency of the C&D process. If surfaces are not properly cleaned, the disinfection process is ineffective. The basic steps of C&D include:

- Remove all visible gross contaminants from people, vehicles, and all equipment.
- Apply detergent solution onto the surface and allow sufficient time for the detergent to disperse. This allows for the breakdown of the different components of accumulated grime such as fat, protein, and manure.
- Thoroughly rinse the surface using a hose or pressure washer while preventing cross contamination of clean surfaces. Residual detergent may interact unfavorably with the applied disinfectant.
- Apply a standard-registered disinfectant to inactivate disease agents. Follow all safety precautions and use directions specified on the product label. The disinfectant must be left on surfaces for the required contact time per the label instructions.

Cleaning is the most important step in the disinfection process. If an item or material is not adequately cleaned, the application of disinfectant is a waste of time and money because soil (manure, dirt, secretions, and excretions) cannot be disinfected. The cleaning process can be broken down into four basic steps:

1) Dry clean
2) Wet wash
3) Rinse and
4) Dry.

Dry Clean— the area to be disinfected should be dry cleaned with a shovel and broom. This step will remove all gross contamination with manure, debris, loose straw, and feed. Any material that cannot be burned should be buried. Scrap wood, wooden gates, wooden feed bunks, and items that are of limited financial value compared to the time and effort required to clean them should be gathered together to be appraised and burned. Ropes, halters, and other items of minimal value that are difficult to clean and disinfect should be appraised and burned.

Begin the process by hauling the manure to a predetermined site for disposal. This may involve moving a number of tons of manure and require considerable time. Stalls, barns, and stanchions that cannot be cleaned out with tractors must be cleaned with manure fork, shovel and broom.

When the dry cleaning step is finished, there will be no loose dirt, dust, feed, bedding, manure, hay, straw or any other loose organic material left within the structure. The surfaces will not necessarily be visibly clean when this step is complete because of organic matter which is tightly adhered to the surface.

Wet Wash— all exposed surfaces, cracks, junctions, joints and mechanical items should be wet washed with a soap solution or detergent. During the wet wash it is necessary to scrub, scrape, or wire brush all surfaces vigorously to break down any biofilm which may be present. Scrubbing can be done with rags on smooth surfaces although commercially available plastic or metal scrub pads are much more efficient. Rough surfaces should be scrubbed with a wire brush to ensure that they are cleaned as completely as possible. Deep cracks, crevices, pits, pores, or other surface irregularities should be given special attention to dislodge accumulated grime. When the wet wash step is completed, the surfaces will be visibly clean. The moisture on surfaces will spread evenly, wetting the surface completely. There will be no beading of moisture which would indicate the presence of oil or grease.

Rinse: Rinse washed surfaces thoroughly to remove all traces of soap or detergent. Residue of soap or detergent should not be left on the surface because it may react in

an unfavorable manner with the disinfectant. When this step is complete, the water film will still “wet” the surfaces in the absence of soap or detergent, and there will be no beading

Dry: The rinsed surfaces should be dried to remove all of the moisture. Removing the moisture promptly will protect equipment and surfaces from deterioration. If left in place, excess moisture will dilute the disinfectant which is to be applied to the surfaces and there is no practical way to compensate for the dilution when mixing the disinfectant. In cool or cold weather, drying can be accomplished by heating the building and circulating the air with auxiliary blowers. In hot weather, drying can be accomplished with blowers or fans alone. In confined areas or on equipment where air circulation from fans is not enough, the use of high pressure air from a compressor or high volume “leaf blowers” will remove excess moisture so drying can take place.

Inspect

All surfaces, junctions, cracks, and mechanical devices in the building should be carefully inspected to assure that the cleaning process has removed all of the organic matter. Rewash any areas *that* may require further attention in order to pass inspection.

2.2 Cleaning animals and animal housing

2.2.1 Special Cleaning and Disinfection Procedures

- **Concrete or Wooden Construction**

All surfaces must first be thoroughly cleaned of all fecal material and organic debris. Any bedding must be burned or buried. If the disease was reportable the directions of the regulatory agent in charge should be followed. The walls and floors should be scrubbed with a hot detergent cleanser solution. A steam cleaner may help, but it does not take the place of mechanical scrubbing. If there are no painted surfaces within the enclosure complete the cleaning with the application of a hot lye solution.

- **Broiler Poultry Houses:**

Because of the extent of the broiler industry in the State of Georgia special consideration should be given to the cleaning and disinfection of these facilities,

especially after a disease outbreak or flooding. The first step in cleaning and disinfection of a poultry house is to treat the poultry house to eliminate litter beetles and flies. Some producers treat the house after birds are removed from the house before the insects have a chance to move in. Others prefer to wait until the litter has been removed and apply the approved pesticide as part of the wash down procedure. If a residual soil treatment is used, it should be applied to the dirt floors after the completion of all cleaning and disinfecting and before fresh litter is put down. Whatever litter beetle pesticide is used the label directions of the product must be followed exactly.

If not already in place rodent control should also be instituted at this time. The best method to control rodents is to close all access routes into buildings. Cats, traps, and rodenticides have all been used to control rats and mice in poultry houses. If rodenticides are used make sure all birds are out of the house, and precautions should be taken to insure no pets or other animals are allowed into the house or come in contact with the poison or poisoned rodents as they may also be poisoned. Follow all manufacturers' directions.

Next, remove all moveable equipment from the house. Clean and then disinfect this equipment and leave it outside to dry in the sun while completing the rest of the cleaning and disinfection.

All litter/manure must then be removed from the house. If the litter/manure is stored on the premises, it should be moved as far away from the houses as possible, at least a minimum of 100 yards. The litter/manure should be covered with plastic if it is to be stored for more than a few days. The litter should be composted if possible.

After the litter has been removed, the dust and cobwebs should be removed from the walls, ceilings, curtains, fan blades, louvers, equipment, etc. After removing the litter and any remaining dust and debris, the house should be thoroughly washed. The washing procedure is best performed using a high-pressure spray washer. (Note that

high-pressure washers can damage ceilings and curtains.) Add detergent to the water to increase the water's cleaning action. Make sure the detergent used is compatible with the compound subsequently used for disinfection. The water temperature in the sprayer should be at least 200ºF to aid in the killing of any microbes.

Fan motors, switch boxes, outlets and other electrical equipment should be covered before washing down the house to prevent burn-out of equipment and possible electric shock and fires. Clean these types of equipment with a blower, dry brush, or rag before them. Start at the top of the house and work down. It is crucial to remove all dust, dirt, litter, and manure from the house. Ledges, braces, air intakes, and all other places where dust, dirt, feathers, and waste accumulate must be cleaned. Most disinfectants are less effective if used in the presence of organic material. The dirt and fecal material bind the disinfectant that would otherwise be available to kill the microorganisms that cause disease. All disinfectants work best on a clean surface.

Fumigants have been used in the past to disinfect poultry houses. Today, there is some concern over the safety of many of these products as some, such as formalin, are quite poisonous or carcinogenic. Great care must be used when using fumigants. Label directions must be closely followed. Only products that are approved for poultry house disinfection should be used. Fumigation is most effective when the house can be closed airtight.

Disinfection of the house comes after cleaning has been accomplished. There are numerous types of disinfectants that can be effective when used properly. The most accepted types of disinfectants for poultry houses are synthetic phenols, coal tar distillates, and quaternary ammonia compounds. These compounds are best suited for use because they are not as susceptible to deactivation by organic material, and they are relatively non-corrosive to equipment. Even within these families of disinfectants, some are more effective than others when organic debris is present. Whatever disinfectant is used the label directions must be read and followed exactly, and the product used in the manner for which it is intended. In most cases, the best way to

apply a disinfectant is by spraying or foaming it on with a medium pressure sprayer. Steam cleaning (at 285ºF) with water alone is also a very effective way to disinfect if the necessary equipment is present. After disinfecting, allow the house to dry completely.

All feeders, hoppers, and feed bins must be thoroughly cleaned and disinfected. Scrape and scrub the feeding system to completely remove all the old feed. Also, remove the feed bin boot and clean out any remaining feed. Clean the bin with a high-pressure sprayer and then disinfect it with a 10% chlorine bleach solution. The boot can be left off until the bin is completely dry, but it must be reassembled before the first feed delivery arrives. Waverers must also be cleaned and disinfected. Water lines must be flushed out and any tanks, proportioners, medicators, etc., must also be cleaned and disinfected.

Fresh air and sunlight are excellent at reducing the numbers of microbes present. Let as much light and air into the house as possible during the down time. No wild birds or any other animals should be allowed to enter the house at any time, but especially after it has been disinfected. Wild birds and other animals can carry viruses and bacteria on their fur and feathers and recontaminate the house, negating the effects of cleaning and disinfecting.

In addition to cleaning and disinfecting the inside of the house, the immediate area around the exterior of the house must also be cleaned and disinfected. Keep vegetation surrounding the poultry structures mowed short. Disinfect 10 feet around the outside of the buildings. Clean and disinfect entrances to the house. These areas must be as free of litter/manure and feathers as possible.

The following is a summary checklist for cleaning and disinfecting a broiler house:

- Treat the house for litter beetles, flies, and rodents
- Remove all removable equipment
- Clean and disinfect the removed equipment; and store in a sunny location.
- Sweep out all litter and manure from the house.
- Wash down the house completely from top to bottom.
- Cleanse and disinfect the watering system and the entire feeding system from the bins to the pans.

- Fumigate the house if necessary and follow the manufacturer's directions.
- Spray the entire house with a disinfectant approved for use in poultry houses.
- The house and equipment should be completely dry before returning the equipment to the house.
- Allow at least 12-14 days down time between flocks before introducing new birds back into the house. Bringing birds back into the house prematurely will increase the chance of cycling diseases from flock to flock.

- **Poultry layer house:**

A complete cleaning and disinfection between each brood of pullets is highly recommended. Cage layer houses and equipment must be thoroughly cleaned and disinfected after each flock is removed from the premises and before a new flock is introduced. Again, the information for broiler houses will also apply here with notable exceptions to the type of equipment that is used.

Remove any manure from the house and place it as far away from the house as possible or a minimum of 100 yards. Cover dry manure and compost it if possible. Run-off from manure piles should not be allowed to contaminate the driveways or entrances to the poultry houses. Sweep the house from top to bottom to remove cobwebs, feathers, etc. Institute vermin control. Floors, lighting fixtures, fan blades, air inlets, louvers, beams, ledges, walls, cages, and walkways must be thoroughly cleaned. Burned out light bulbs should be replaced and all other bulbs should be cleaned. Clean the facility by working from top to bottom.

A pressure sprayer is recommended for cleaning. A pressure of 750-2,000 psi is recommended but at this high pressure special care and personal protective garments are needed as this pressure can cut human skin. Care must be taken to follow the manufacturer's instructions for the use of the pressure sprayer. Use sprayer attachments and nozzles that permit washing of hard-to-reach areas. Wash the ceilings, walls, walkways, steps and cross-over platforms, egg rollers, all egg conveyors, cross belts, floors under conveyors, stairs to the pit, outside stairs, and concrete pit floors. Clean everything completely.

Special attention must be paid to clean and disinfect not only the top, but also the underneath sides of troughs and the surfaces of all chains and augers. Extreme care

must be given to the egg elevator. Check for cleanliness from every angle possible, especially from the underside of the pit and from behind rollers. Remove all traces of egg breakage and spillage. If slats are used they should be removed and taken outside of the house for cleaning. They should be scraped of any manure, pressure washed to remove any residual material, disinfected, and left outside to dry in the sun. Any removable equipment should be taken outside, cleaned thoroughly, and then disinfected and allowed to dry in the sun.

Wash egg rooms, storage rooms, egg coolers, hallways, break, wash and restrooms.

Manually clean any areas that have resisted prior cleaning. Cover both sides of the curtains completely and thoroughly with spay to remove dirt, dust, and down. The curtains should be up and completely extended when cleaning and spraying. When dry the curtains may be dropped. The house should be allowed to air out completely.

After thoroughly cleaning the ceiling, curtains, wall, partitions, cages, feeders, waterers, and other equipment, they must all then be disinfected. Disinfection should occur within 24 hours of cleaning. The disinfectant should be applied at the rate recommended by the container label. Care should be taken not to get any water or spray into electric motors.

Use of pressure sprayers is advisable to help force the disinfectants into wood pores, cracks, and crevices that protect microorganisms. Spray pressures of 500-1,000 psi have been suggested. Work from back to front and from top to bottom. Dirt floors are almost impossible to fully disinfect. In situations where dirt floors could not be

concreted, disinfectant has been applied to the floor at the rate of one gallon diluted disinfectant per 10 square feet. Clorox has been used for this purpose.

Disinfect egg-handling equipment (elevators, egg belts, etc.) in accordance with recommendations provided by equipment and disinfectant manufacturers. The use of steam, vats of water at pasteurization temperatures, or soaking in disinfectant to disinfect egg belts has been suggested but not fully evaluated for effectiveness or harmful effects on the belt. After the facility has been disinfected, it must be dried. Space heaters have been used to speed the drying process in cold or damp weather.

2.2.2 Cleaning and Disinfection of Vehicles/Equipment: Vehicles traveling between farms, livestock markets, and packing or rendering plants provide an excellent vector for spreading disease from one site to another. This fact is recognized as a main biosecurity threat. To prevent the spread of diseases during cleaning and disinfecting procedures vehicles involved in the process will also require cleaning and disinfection to reduce the risk of spreading diseases from one farm to another as well. Recommended procedures for cleaning and disinfecting vehicles involve the following principles:

2.2.3 Exterior of the vehicle:

- Ensure the crew involved in cleaning the vehicle is wearing clean and disinfected waterproof, protective clothing.
- Remove any deposits of mud, straw, or dirt from the wheels, wheel arches, mudguards, and exposed chassis of the vehicle.
- Remove all food, bedding, and dung from the trailer bed with brushes, scrapers, or shovels.
- Clean and disinfect the outside of the vehicle by starting at the top of the vehicle and working down each side, paying special attention to the wheel, wheel arches, and mudguards.
- Wash the tail gates and lifts thoroughly.
- Wash all vehicle equipment, tools, and the inside of the trailer.

- After washing is complete, a high-pressure rinse should follow to clean all surfaces with clean water and to check to make sure there is no muck or debris.

2.2.4 Disinfection of the vehicle cab:

- Take out all removable items from the cab and brush any debris or mud into a bucket or dustpan.
- Wash the floor of the cab, the floor mats, and vehicle pedals with a detergent such as Biosolve® allowing 10 minutes for the detergent to penetrate and loosen dirt.
- Use a clean cloth soaked in a disinfectant to disinfect the cab floor, mats, and foot pedals.
- All items removed from the cab must also be cleaned and disinfected in a similar manner.

Finishing:

- Park the vehicle on a slope to dry.
- Once the vehicle is removed from the wash area, rinse the concrete surface with a detergent, making sure no muck or debris remains.
- Disinfect overalls and boots with Virkon.

Self-Check -2	Written Test

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. Define cleaning (2 points)
2. List the four step of cleaning (4 points)

Note: **Satisfactory rating – 2 and 4 above points Unsatisfactory - below 2 and 4 points**

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Name: _____ Date: _____

Short Answer Questions

Operation Sheet 1	undertaking cleaning activities in safe and environmentally appropriate manner

1. Basic Steps of a Cleaning and Disinfection Protocol

There are proper procedures to follow in order to increase the efficiency of the C&D process. If surfaces are not properly cleaned, the disinfection process is ineffective. The basic steps of C&D include:

- Remove all visible gross contaminants from people, vehicles, and all equipment.
- Apply detergent solution onto the surface and allow sufficient time for the detergent to disperse. This allows for the breakdown of the different components of accumulated grime such as fat, protein, and manure.
- Thoroughly rinse the surface using a hose or pressure washer while preventing cross contamination of clean surfaces. Residual detergent may interact unfavorably with the applied disinfectant.
- Apply a standard-registered disinfectant to inactivate disease agents. Follow all safety precautions and use directions specified on the product label. The disinfectant must be left on surfaces for the required contact time per the label instructions.

Information Sheet- 3	Carry out Interaction with others staffs in a positive and professional manner.

3. The Importance of Interaction in Workplace Issues

Great business leaders and human resources professionals know the benefits of effective working relationships. These are relationships between co-workers, managers and staff, and employees with the public.

Positive interactions increase good feelings, increase morale and improve work satisfaction.

Negative interactions create confusion, anxiety, tension and uncertainty, which adversely affect work efficiency and company productivity. As a business leader, don't leave workplace interactions to chance. Take the time and energy to help everyone in the organization develop the skills for positive interactions, whenever possible. There are many benefits to having effective working relationships.

Positive interactions start with basic pleasantries. These include answering the phones in a professional, pleasant way, keeping in mind the old school idea that people can "see your smile" over the phone. A positive interaction also starts with greeting people who are walking into the establishment, perhaps even opening the door for them, as they enter.

But interaction goes well beyond politeness and communication between people. Interaction is an experience that other workers and consumers have when working with someone for a short time or for an extended period of time.

3.1 Tips on how to best interact with your team members or staffs.

- **Schedule regular open meetings**

When communicating with team members through e-mail, text, instant message, and other forms of digital media, the meanings of messages can be easily misinterpreted.

The best team interaction often takes place in open, face-to-face meetings. In this type of setting, team members will both hear the words of your intended communication and the tone of voice you use while giving it.

- **Use appropriate body language.**

The look on your face can say more than a thousand words. For instance, when a team member wears a scowl on his or her face while listening to a fellow employee's ideas, the interaction between the two people will likely be boring. Using positive, body language conveys interest, sincerity, and cooperation to team members. Examples of positive, body language include:

- Smile
- Make eye contact
- Give thumbs up
- Nod or show that you are actively listening to what they have to say
- Give high fives, fist bumps, or shake hands

- **Speak simply**

When addressing team members, don't attempt to wow them with your impressive vocabulary. Speaking with simple words and phrases will improve the likelihood of effectively communicating your message while decreasing the probability of appearing like a show-off.

- **Utilize visuals.**

Some of the members on your team might learn better when listening to a lecture. Other employees may comprehend new concepts more easily after looking at visuals. To accommodate a variety of different learning styles, create informative visuals to display when giving a presentation at a team meeting. Also, understanding the behavioral pattern of your team members will ensure you address certain needs, like preferring to read information before meeting as a group to discuss something.

- **Value every team member's ideas.**

Effective teams contain team members who value each other's ideas. If team members are belittled or ignored after offering input, they will likely stop engaging in team discussions and other activities. When this occurs, collaboration is stifled. Some team members are not naturally driven to initiate conversation. Taking the time to understand who is driven to talk things through versus those who is not will allow you to make sure everyone is given appropriate airtime.

- **Establish ground rules for the team.**

Establishing ground rules for a team will encourage order, efficiency, and healthy communication at meetings. Every member of the team should have a voice in the rule creation process. Rules should be agreed on by consensus. A few rules that might improve interaction among team members include:

- Every team member will arrive at meetings on time
- Each team member is allowed to offer suggestions and provide ideas
- Only one team member will speak at any given time

- **Encourage debate.**

When team members are afraid to disagree with one another, they might blindly make important decisions without feeling confident about them. In this type of environment, only one or two team members might be responsible for making most, if not all, of the team decisions. Healthy debates inspire creativity and collaborative brainstorming. Keep in mind that in order to feel comfortable engaging in debate, your team has to be comfortable with each other. Regular team building exercises may be helpful to make people more comfortable and trusting enough to debate without fear of offending anyone.

- **Show appreciation.**

Most people respond better to courtesy than they react to impoliteness. Showing appreciation makes team members feel like they matter. Expressing gratitude, even for small acts, creates goodwill. Examples of displaying appreciation to team members include:

- Congratulating a team member for developing a great idea for a new project

- Thanking a team member for finishing an assignment before a deadline
- Thanking team members for taking the time to listen to a presentation.

Self-Check -3	Written Test

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. What is the Importance of Interaction in Workplace Issues (2 points)
2. Differentiate positive and negative interaction (4 points)

Note: **Satisfactory rating – 2 and 4 above points Unsatisfactory - below 2 and 4 points**

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Name: _____ Date: _____

Short Answer Questions

Information Sheet- 4	Observing organisational policies, procedures in relation to workplace practices and handling disposal of materials.

4. Workplace practices and the handling

- Effective animal housekeeping can eliminate some workplace hazards and help get a job done easily and properly. Poor animal housekeeping can frequently contribute to accidents by hiding hazards that can cause injuries
- Replace any worn, ripped or damaged flooring that poses a tripping hazard. Repair all trap doors and railings.
- Trap doors, cages or railing should be present at hay chutes to prevent anyone from accidentally falling into them. Cut down and remove weeds and brush from around buildings the orderly storage and movement of materials from point of entry to exit.
- Workers need to know how to protect other workers such a posting signs and reporting any unusual

Tools and equipment

- Tool and equipment for animal housekeeping is very important, whether in the tool room, on the rack, in the yard, or on the bench.
- Returning of tools prompotly after uses reduces the chance of being misplaced and lost
- Worker should regularly inspect, clean and repair all tools and and take any damaged or worn tools out of service

Maintain light fixtures

- All building and yard should be adequately lighted. Light fixtures should be free of dirt as dirty light fixtures reduce essential light levels.

- Clean light fixtures can improve lighting efficiency significantly light fixtures in storage areas containing combustible materials should be protected against breaking (i.e. explosion proof fixtures).
- Maintain lighting evenly, shadows mixed with light spots inside animal handling facilities will increase the animal's fear and tension.

Floors and other areas

- Clean up oils and spills on floors immediately.
- Maintain floors free of debris and accumulations of dust.
- Areas that cannot be cleaned continuously, such as entranceways should have anti-slip flooring.

Spill control

- The best way to control spills is to stop them before they happen.
- Regularly cleaning and maintaining machines and equipment is one way to; another is to use drip pans and guards where possible spills might occur.
- When spil do occur; it is important to follow cleanup procedures as indicated on the Material Safety Data Sheet.
- Spills must be cleaned up immediately. Absorbency material is useful for wiping up greasy, oily or other liquid spills. Used absorbents must be disposed of properly and safely.

4.1. Methods of waste disposal

a) Bury

- Burial site should have no risk of:
  - ✓ Pollution to surface water or groundwater.
- Should buried to 1 meter depth
- The area should have fence and warning signs (fig. 1)
- Keep the record of burial date and material buried

Fig. 1- fence and warning sign where chemical wastes are buried

b) Burn of wastes

- ❖ Burning should takes place in an open space at least 15 metres from any public or livestock area.
- ❖ All containers are opened and placed on a very hot fire, a few at a time.
- ❖ Supervise the fire constantly.
- ❖ Avoid breathing any smoke produced.
- ❖ Extinguish the fire after use

4.2 Medical waste disposal

The Medical Waste: any solid waste that is generated in the diagnosis, treatment, researching or immunization of human beings or animals.

4.2.1 Types of Medical Waste

1. Infectious waste: describes waste that has the possibility of causing infections to humans. It can include

- Human or animal tissue (blood or other body parts),
- blood soaked bandages,
- discarded surgical gloves,
- Cultures or swabs to inoculate cultures. Much of this category, including human or animal tissue, can also be labeled as pathological waste, which can only be treated using specific methods

2. Hazardous waste: describes waste that has the possibility to affect humans in non-infectious ways. This type of waste includes

- Sharps instruments such as
- Needles, syringes, scalpels lancets, culture dishes and other glassware.

- Hazardous waste can also include chemicals, both medical and industrial.
- Some hazardous waste can also be considered infectious waste, depending on its usage and exposure to human or animal tissue prior to discard.

3. Radioactive waste describes waste resulting from nuclear medicine treatments, cancer therapies and medical equipment that uses radioactive isotopes. Pathological

waste that is contaminated with radioactive material is treated as radioactive waste rather than infectious waste.

General waste makes up at least 85% of all waste generated at medical facilities, and is no different from general household or office waste, and includes paper, plastics, liquids and any other materials that do not fit into the previous three categories.

4.3 Treatment and disposal of medical waste

The primary methods of treatment and disposal of medical waste are:

- Incineration
- Autoclaves
- Mechanical/Chemical Disinfection
- Microwave
- Irradiation

Self-Check -4	Written Test

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. List the type of medical wastes (2points)
2. Describe type of waste disposal? (4 points)

Note: **Satisfactory rating – 2 and 4 above points Unsatisfactory - below 2 and 4 points**

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Name: _____ Date: _____

Short Answer Questions

Information Sheet- 5	Reporting problems or difficulties in completing work

5. Reporting Problems or difficulties to supervisors

- Abide by statutory regulations and all health and safety rules, policies, procedures and practices.
- Work in a manner that will not endanger themselves or others at work.
- Actively participate in all training programs and report to a supervisor
- Any lack of understanding or knowledge to perform the work activities safely.
- Participate with the employer to promote health and safety.
- Report unsafe acts or conditions to a manager/supervisor/researcher.
- Report all injuries and incidents.
- Assist with incident/injury investigations and comply with the recommended corrective action(s).
- Report the following illnesses to a supervisor:
- Generalized rash or skin lesions that are vesicular, pustular or weeping,
- Jaundice, or
- Illness that does not resolve within a reasonable period of time (e.g. cough persisting for more than 2 weeks, gastrointestinal symptoms for more than 3-4 days, fever > 103°F (39.5°C) for more than 2 days). Workers should also report:
- Pregnancy
- Illness or medication that may compromise the immune system (e.g. corticosteroids)
- Open wounds, burns, fresh tattoos or piercings on exposed body surfaces
- Reporting can be daily, weekly, monthly, quarterly or yearly basis.

Self-Check -5	Written Test

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. List some problems during completing work (2points)

Note: **Satisfactory rating – 2 above points** **Unsatisfactory - below 2 points**

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Name: _____ Date: _____

Short Answer Questions

Information Sheet- 6	**Storing waste material produced during *cleaning activities* designated area**.

6. Storing Waste material

- Stored materials should allow at least one meter (or about 3 feet) of clear space under sprinkler heads. Stacking cartons and drums on a firm foundation and cross tying them, where necessary reduces the chance of their movement.
- Stored materials should not be obstruct aisles, stairs, exits, fire equipment, emergency eyewash fountains, emergency showers, or first aid stations
- All storage areas should be clearly marked.
- Manure should be stored outside confinement buildings above ground, uncovered and enclosed by an adequate fence.
- Store away hay ropes and pitchforks to avoid accidental hangings and puncture wounds
- Storage equipment, as the name suggests is used to store materials, components and assemblies.
- The level of complexity of this type of equipment is wide ranging, from a welded

Cantilever steel rack to hold lengths of stock materials to a powered vertical carousel system. Also within this category are pallet racks, mobile shelf units, and plastic, wood and steel containers.

Self-Check -6	Written Test

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. How to store wastes material produced during cleaning activities designated area (6 points)

Note: **Satisfactory rating – 6 above points** **Unsatisfactory - below 6 points**

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Name: _____ Date: _____

Short Answer Questions

Instruction Sheet	Learning Guide 23#

This learning guide is developed to provide you the necessary information regarding the following **content coverage** and topics –

- Storing or disposing materials.
- cleaning, maintaining and storing tools and equipment
- Maintaining clean and safe work site while completing cleaning activities.
- Reporting work outcomes

This guide will also assist you to attain the learning outcome stated in the cover page. Specifically, upon completion of this Learning Guide, **you will be able to –**

- Store or dispose materials according to supervisors' instructions
- Clean, maintain and store tools and equipment according to manufacturers' specifications and supervisors' instructions.
- Maintain clean and safe work site while completing cleaning activities.
- Report work outcomes to supervisors

Learning Instructions:

7. Read the specific objectives of this Learning Guide.
8. Follow the instructions described below 3 to 6.
9. Read the information written in the information "Sheet 1, Sheet 2, Sheet 3 and Sheet 4".
10. Accomplish the "Self-check 1, Self-check t 2, Self-check 3 and Self-check 4" in page -6, 9, 12 and 14 respectively.
11. If you earned a satisfactory evaluation from the "Self-check" proceed to "Operation Sheet 1, Operation Sheet 2 and Operation Sheet 3 " in page -15.
12. Do the "LAP test" in page – 16 (if you are ready).

Information Sheet- 1	Storing or disposing materials.

1. Storage

Storage is defined as holding hazardous **waste** for a temporary period, at the end of which the hazardous **waste** is treated, **disposed** of, or **stored** elsewhere

1.1 General Requirements for Storage of Materials

Store materials in a planned and orderly manner that does not endanger employee safety. Ensure stacks, tiers, and piles are stable and stacked to aid safe handling and loading. Store hazardous materials in accordance with the individual requirements.

Storage Requirements

When storing hazardous waste or recyclables, containers must be:

- In good condition and not leaking
- Protected from the weather
- Compatible with the materials they are storing to avoid corrosion or chemical reactions that could result in fire
- Kept closed except when adding waste
- Not opened, handled or stored in ways that could cause leaks or ruptures
- Clearly marked and labelled to identify what is being stored

In addition, the following requirements and precautions should be taken:

- Clean up any spills immediately
- Do not store incompatible wastes together
- Have in place secondary containment for liquid hazardous waste/recyclables
- Use separate containers and appropriate barriers between different wastes to prevent contact in the event of a release
- Inspect waste and recyclables in storage weekly and note any deterioration or corrosion in an inspection log

1. Materials Storage

- In buildings under construction, materials must not be placed within 6 feet of a hoist way or floor opening.
- Use personal fall arrest equipment when working on stored material in silos, hoppers, tanks, and similar storage areas.
- No compatible materials shall be segregated in storage.
- Materials shall not be stored on scaffolds or runways except for immediate operations.
- Stack bricks in a manner that will keep them from falling.
- Do not stack more than 7 feet high.
- Taper back a loose brick stack after it is 4 feet high.
- When masonry blocks are stacked higher than 6 feet.

  − The stack should be tapered back one-half block per tier above the 6-foot level.

Housekeeping

- Storage areas must be kept free from accumulation of materials that create hazards from: − Tripping

  − Fire

  − Explosion

  − Pest harborage

Disposal of Waste Materials

- An enclosed chute must be used when dropping material more than 20 feet outside of a building.
- When debris is dropped through holes in floors without the use of chutes:
  - Area must be enclosed with barricades
  - Warning signs must be posted at each level
- All scrap lumber, waste material, and rubbish must be removed from the immediate work area as work progresses.

- Disposal of waste material or debris by burning shall comply with local fire regulations.
- All solvent waste, oily rags, and flammable liquids must be kept in fire resistant covered containers until removed from worksite.

Recycling and Disposal

When these substances are intended for final disposal they are called wastes. However, many can be managed as a resource for further beneficial use and then are known as recyclable

Self-Check -1	Written Test

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

2. Define waste? (2 points)
3. List storage requirements? (4 points)

Note: **Satisfactory rating – 2 and 4 above points Unsatisfactory - below 2 and 4 points**

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Name: _____ Date: _____

Short Answer Questions

Information Sheet- 2	Clean, maintain and store tools and equipment

2. Cleaning the **tools** regularly is essential to their proper functioning and store **equipment** properly for us to avoid bacteria from penetrating or accidents. **Cleaning** and sanitizing the **equipment** is essential because it helps us to be more secured, far from bacteria and other causes of illnesses

2.1 How do you maintain cleaning equipment?

2.1.1 Properly Maintaining Your Cleaning Tools

- Basics. Clean brooms, brushes and mops after that day's use.
- Brooms. Comb out broom fibers regularly to remove any debris.
- Storage. Always use a holder to keep brooms stored off the floor or store with the bristles upright. ...
- Cotton Mops. After each use, rinse cotton mops in hot water and white vinegar.

2.2 Cleaning tools and equipment before storing

It **important** to **clean**, sanitize and store **equipment** properly for us to avoid bacteria from penetrating or accidents. **Cleaning** and sanitizing the **equipment** is essential because it helps us to be more secured, far from bacteria and other causes of illnesses

2.3 What are the correct maintenance of tools and equipment?

Construction regulations require inspections of vehicles, **tools**, machines and **equipment** before use. Preventive **maintenance** is the systematic care and protection of **tools**, **equipment**, machines and vehicles in order to keep them in a safe, usable condition, limit downtime and extend productivity.

2.3.1 Tools and equipment maintenance

Steps

1. Clean your tools. Cleaning the tools regularly is essential to their proper functioning.
2. Protect electrical cords. Airlines and electrical cords are prone to heavy damage since they are generally in the way of construction vehicles, and foot traffic.

3. Lubricate tools.
4. Inspect tools regularly.

Step of to store tools & equipment

Step 1

Delegate a portion of your garage, shed or basement closet as a place to store tools. Clean out the junk and clutter and make a space only for tools. Figure out how much space is needed for the amount of tools you have. Sweep away cobwebs, dirt and other foreign matter. Get a shelving unit and store chemicals, liquids and paint substances out of the reach of children and pets.

Step 2

Find the parts. Locate cords, bits, nails and screws and organize them. Allocate plastic bins to store smaller household tools. If you have a large tool collection, organize by type for easy location. Keep the parts for each specific tool close by.

Step 3

Clean out dirt and debris from tools. Oil power tools to lubricate moving parts. Repair loose handles and clean out oil or other fluids used to power the tool. Sharpen blades and replace worn out parts.

Step 4

Set up racks. Mount commercially available racks along the wall of your garage or storage area to hang garden tools, cords and other equipment. Screw racks into the wall with screws recommended by the manufacturer and a power drill. Wind long cords in a loop and hang from rack. Place tools on racks by the handle. Draw the outline of the tool with a permanent marker to identify its place, or use labels to mark the location.

Step 5

Create a library. For tools and appliances that have various functions, designate a library area or bin within the storage space for user manuals and warranty sheets. Store the booklets alphabetically and in a dry area. Type up a sheet listing all of the books to create simple table of contents.

Self-Check -2	Written Test

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. Why is cleaning tools and equipment important before storing it? (2 points)

2. How to Store Tools & Equipment(4 points)

Note: **Satisfactory rating – 2 and 4 above points Unsatisfactory - below 2 and 4 points**

You can ask you teacher for the copy of the correct answers.

Score = _____

Rating: _____

Answer Sheet

Name: _____ Date: _____

Short Answer Questions

Information Sheet- 3	Maintaining clean and safe work site while completing cleaning activities.

3. Maintaining clean and safe work site while completing cleaning activities.

Regular maintenance of equipment is an important and necessary activity. The term ‘maintenance’ covers many activities, including inspection, testing, measurement, replacement and adjustment, and is carried out in all sectors and workplaces. It has a vital role to play in reducing the risk associated with some workplace hazards and providing safer and healthier working conditions. Insufficient/inadequate maintenance can cause serious (and potentially deadly) accidents or health problems.

3.1 Ways to Maintain Cleanliness of your Workplace

Below are some of the steps you can take that will make your workplace the best place for you to focus and be productive?

- **Take out the trash daily**

A simple habit that you can start doing almost immediately is taking out the trash every day. If left alone, trash can pile up and germs and bacteria can breed. Aside from that, trash left to simmer indoors for long can gather odor.

This will make your office dirtier and, at the same time, it makes it a less healthy place to work in. All of the repercussions of a neglected trash bin can be circumvented by getting into the habit of taking your trash out daily.

You can do it either early in the morning when you first arrive in the office or you can do it right before you leave for home.

- **Stock up on cleaning products**

If you want people to accomplish a task well, then it is important that you give the tools and means that they need to be able to do so. With that said, always having cleaning products on stock is a great way of maintaining the cleanliness of your workplace.

The main cleaning supplies you should have are microfiber cloths, dustpan and broom or brush, a mop and a bucket, a vacuum cleaner, and your choice of detergent. These are the basic cleaning products you should always have on hand.

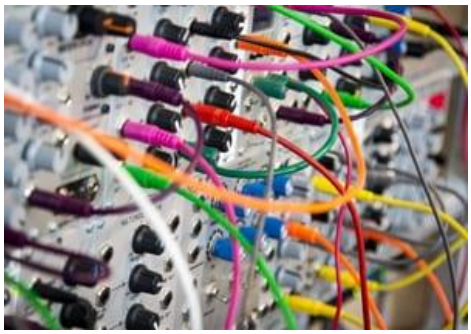
As long as you keep these in stock, then nobody should have any excuse not to clean up any messes or keep the place tidy.

- **Manage and organize cables**

One thing that a lot of people forget to take care of or simply don't know how to get started organizing is their cables. Unorganized cables can be hazardous if left in precarious places. And its lifespan is reduced if left tangled.

Aside from that, loose cables around the office can make general cleaning harder than it should be so managing cables should be something that everyone does in the office. There are multiple ways that you can do this.

There are cable organizers that help with wire management available for purchase online or in your electronics store. If you get everyone into the habit of organizing their cables, there is no going back.



- **Minimize clutter on desk**

People's desks are their work stations and where they will be doing a bulk of their workload. So, it makes sense that you keep this the most organized space possible in the office. With that said, a lot of people can be victims of convenience, keeping trash on the desk because bins are too far.

Make it easier by placing trash bins in key areas of the office. Aside from that, make sure that you encourage everyone to throw away their trash once the work day is over.

Plus, discourage them but don't force them to not place items unrelated to the work that they are doing as of the moment.

- **Schedule office cleaning**

Make sure that you regularly get your office cleaned by professionals. If you do it yourself, you may not be as thorough as when you get professional office cleaning services to do it for you.

When you get your office regularly cleaned, you won't have to spend as much money getting a deep cleaning. Plus, a deep cleaning can take multiple days depending on the severity of the office so you might not have the time for that.

However, even if you don't hire professionals, you can always schedule a day to clean the office so that everyone can have a sense of responsibility for their work environment.

- **Consider posting signs**

Signs that show how to wash hands thoroughly or even signs that indicate where trash bins are or where hand sanitizers are located are also a good idea.

Maintaining a clean office is a job meant for everyone in the workplace. Having the cooperation of everyone is key to not only having a clean place but also to keep it that

way. With the ways listed above, you are able to keep a healthy and tidy workplace for both you and the employees. Initiative and developing clean habits is the key to maintaining the cleanliness of your workplace. When you keep your environment clean, you also make it happier and better suited for productivity.

3.2 Advantages to Maintaining a Clean Workplace

In fact, there are many 'hidden' advantages to maintaining a clean workspace:

• There's a direct correlation between a clean work environment and improved employee health. A clean environment can help reduce worker sick days.

• A regular cleaning program preserves and protects building assets such as carpets, floors, tile surfaces, equipment. It prevents excessive wear and extends lifespans.

• A sparkling workplace can be an excellent marketing tool, whether you're trying to impress prospective clients, lease space or sell the building.

• A clean, healthy building plays extremely well with occupants, creating a welcoming atmosphere, often subconsciously encouraging hard work and collective effort.

• The appearance is one of the major elements that separates one building from another and brings added value.

Some experts say that the cleaning industry should be included under the umbrella of the healthcare industry since cleaning plays such a vital role in keeping people healthy and productive.

Summary

Maintain Cleanliness and Organization in the Workplace

- Assess Risks. Before you can improve workplace cleanliness, you must identify and prioritize areas of concern.
- Make Daily Cleanup a Routine Habit.
- Make It Easy For Employees to Be Clean.
- Make Hygiene a Priority.
- Choose Responsible Cleaning Products.
- Control Dust.

How do you maintain safe working areas?

You must:

- Provide clean floors and stairs, with effective drainage where necessary.
- Provide clean premises, furniture and fittings.
- Provide containers for waste materials.
- Remove dirt, refuse and trade waste regularly.
- Clear up spillages promptly.
- Keep internal walls or ceilings clean.

Self-Check -3	Written Test

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. What is the advantage of maintaining a clean workplace? (2 points)

2. List 4 Ways to maintain cleanliness of your workplace (4 points)

Note: **Satisfactory rating – 2 and 4 above points Unsatisfactory - below 2 and 4 points**

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Name: _____ Date: _____

Short Answer Questions

Information Sheet- 4	Reporting work outcomes

4. Reporting work outcomes

- To inform somebody in authority about something that has happened.
- It can be:
  - ❖ Formal/informal
    - ✓ Verbal
    - ✓ Written

Reporting cleaning activities includes:

- ❖ Safety inspection reports
- ❖ Checklists
- ❖ Accidents and incidents reports
- ❖ Any inherent hazards during cleaning
- ❖ Emergencies
  - ✓ Chemical spill
  - ✓ Workplace injury
- ❖ Reporting of near misses and dangerous occurrence
- ❖ Used agents and chemicals in case of highly strong agent.

➧ Reporting can be daily, weekly, monthly, quarterly or yearly basis.

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