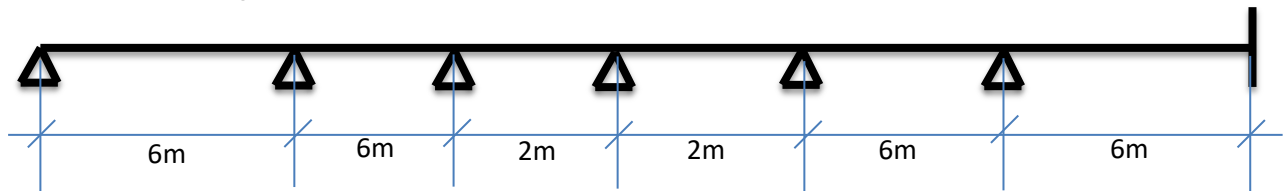


Assignment Two

Continues Beam and Ribbed Slab

Aim: - to help the students develop skill of detailing and understand the effect of live load variation

1. The floor span continuous beam shown in the figure below is intended to support a service dead load of 30 KN/m including self-weight of the beam and service live load of 40 KN/m. The section of the beam is limited to a total depth of 400 mm and a width of 250mm due architectural reason. Use C-20/25 concrete grade and S-400 steel grade.
 - a) Draw the envelop of design moments:
 - I. Without any moment redistribution
 - II. With maximum of **20%** moment re-distribution
 - b) Design the beam for the above two cases.



2. The figure below shows part of a floor slab to be constructed using material C-20/25 concrete and S-400 steel. The overall depth of the slab and the girder is limited to 300mm. design the slab as ribbed slab. [live load variation should be considered]

