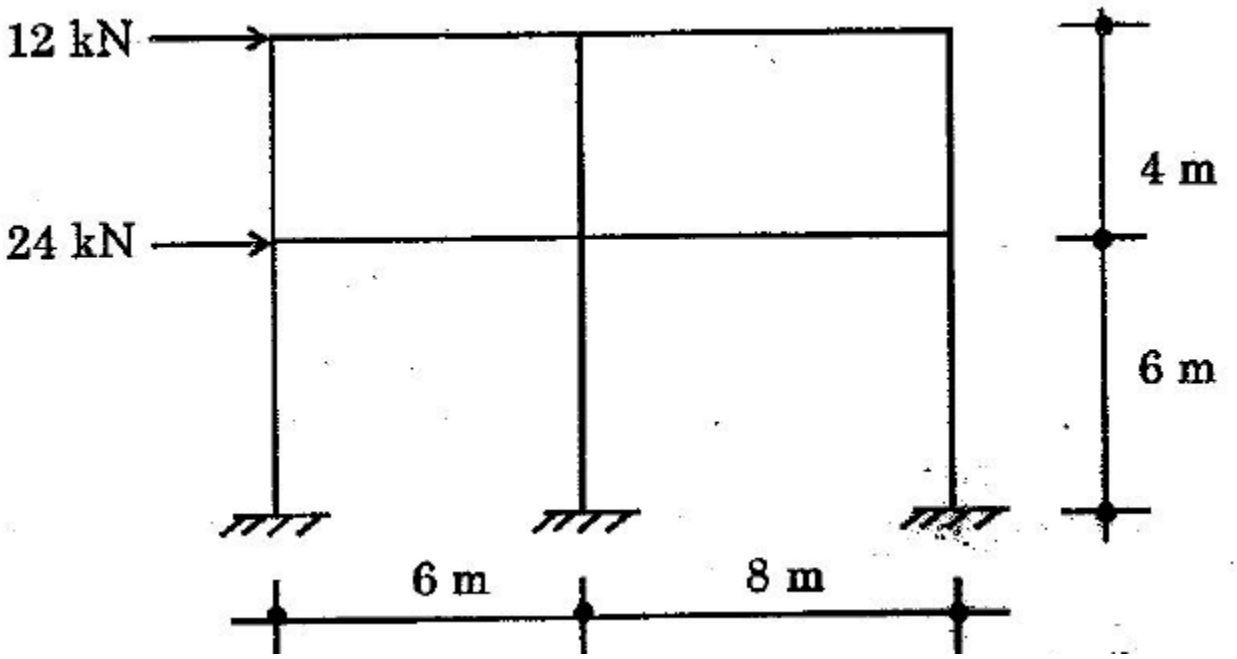
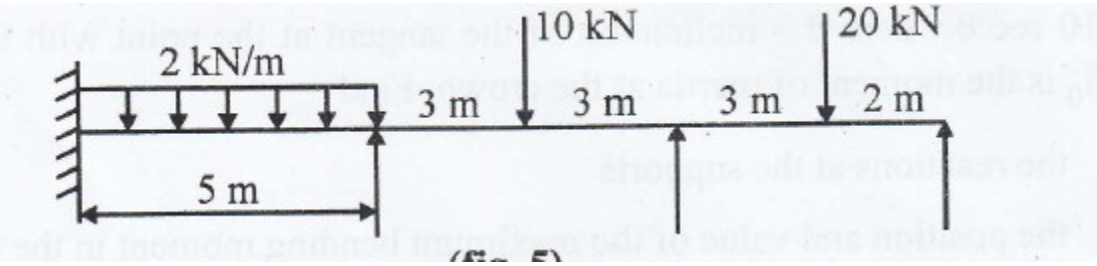
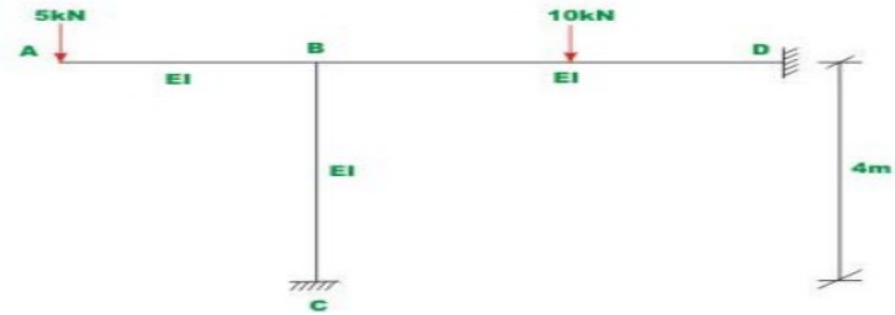
1) What are the different methods of analysis of indeterminate structures?
2) Define a primary structure.
3) Define kinematic indeterminacy or Degree of Freedom (DOF)
4) Briefly explain the two types of DOF.
5) Define compatibility in force method of analysis.
6) What are the requirements to be satisfied while analyzing a structure?
7) Define degree of redundancy. What is the difference between external and internal redundancy?
8) Differentiate between portal method and cantilever method
9) Differentiate between plane stress and plane strain problems.
10) Analyze the frame using portal method.
11) Name the three classical force methods used in the analysis of continuous beams.
12) What are the advantages of slope-deflection method over moment distribution method?
13) How will you obtain degree of static determinacy?
14)



15) Draw the bending moment diagram and shear force diagram for the continuous beam shown in figure , below using moment distribution method. El is constant.



16) Calculate reactions and beam end moments for the rigid frame shown in. Draw bending moment diagram for the frame. Assume EI to be constant for all the members.



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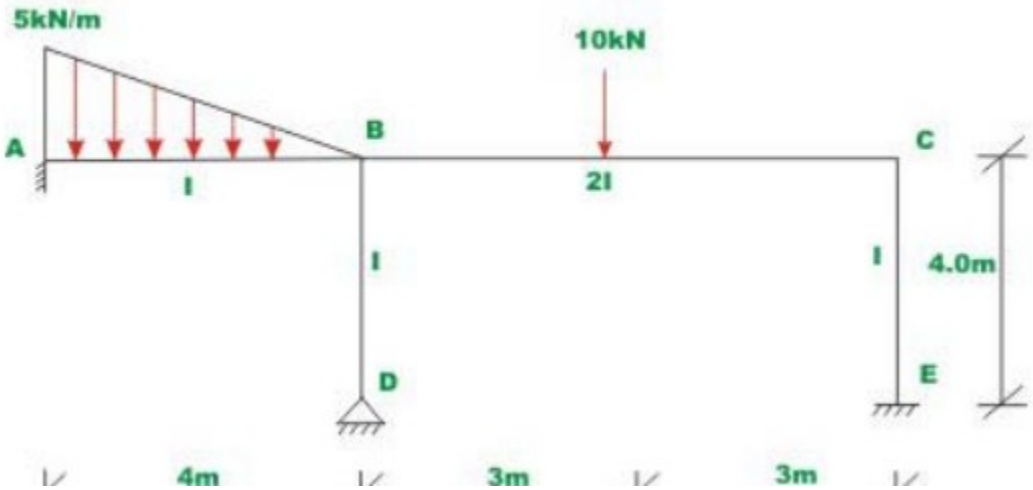
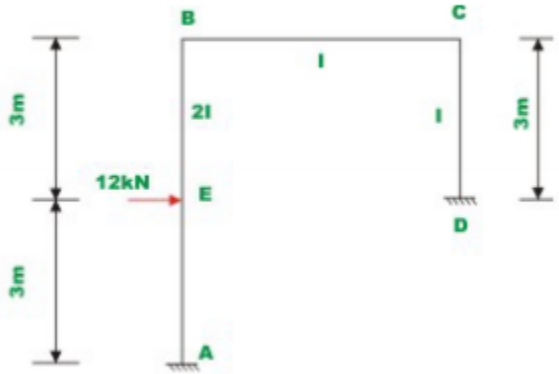
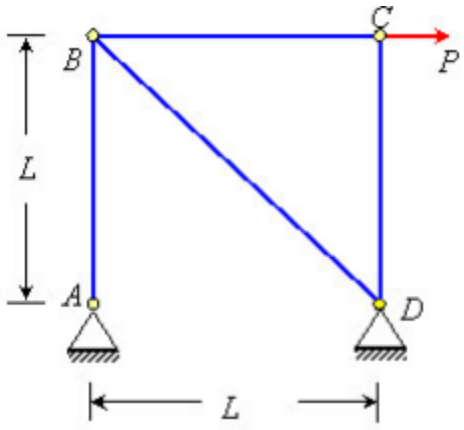
17) Analyze the rigid frame shown in fig a by moment-distribution method. Moment of inertia of different members is shown in the diagram.



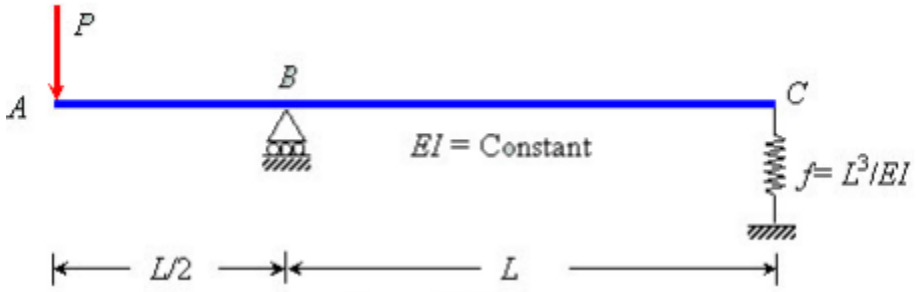
Analyze the rigid frame shown in Fig by moment-distribution method. The moment of inertia of all the members is shown in the figure. Neglect axial deformations.



18) Find the horizontal deflection at joint C of the pin-jointed frame as shown in Figure .AE is constant for all members



19) Determine the deflection of the end A of the beam as shown in Figure. The flexibility of the spring is.



20) The free ends of two cantilever beams each of length L and flexural rigidity EI are joined together with a spring as shown in Figure . The stiffness of the spring is . Determine the force in the spring due to a concentrated load W acting at center of the lower cantilever.