



Answer all the following questions: [50 Marks]

Question 1 [10 marks]

Draw the normal force, shear force and bending moment diagram due to the applied load for the beam with two overhangs in Fig. 1.

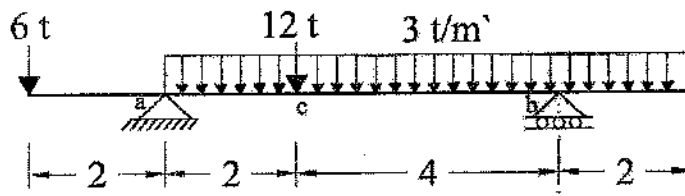


Fig. 1

Question 2 [15 marks]

For the given frame in Fig. 2, draw the normal, shear force and bending moment diagrams.

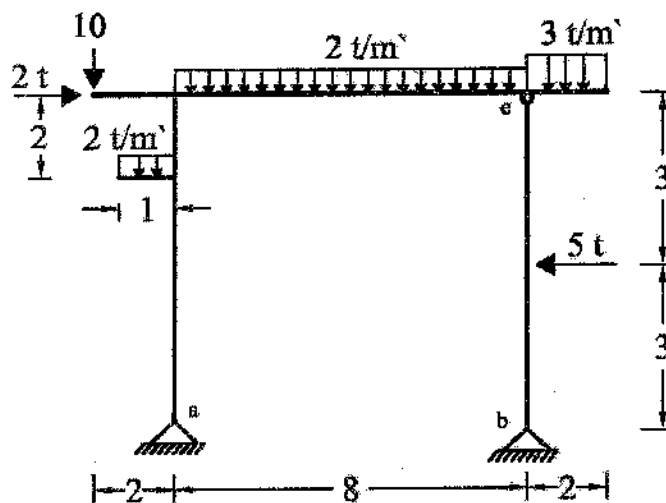


Fig. 2

Question 3 [15 marks]

For the given frame in Fig. 3, draw the normal, shear force and bending moment diagrams.

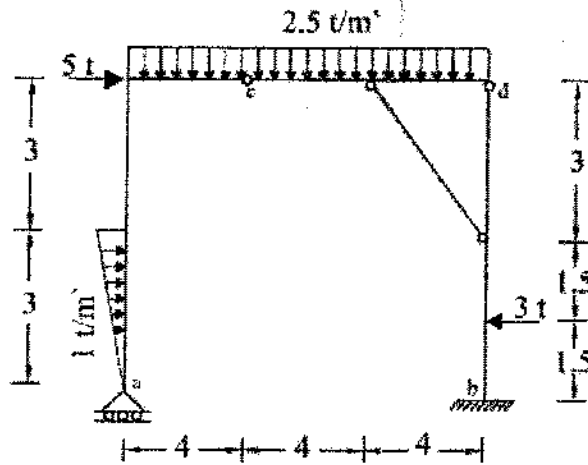


Fig. 3

Question 4 [10 marks]

Find analytically the forces in the marked members of given truss in Fig. 4.

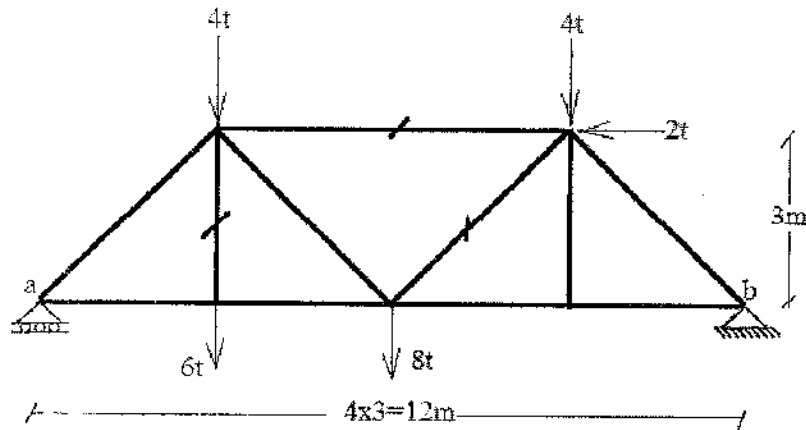


Fig. 4

This exam measures the following ILOs							
Question Number	Q1	Q3	Q4	Q1	Q2	Q3	Q4
	Knowledge & understanding skills			Intellectual Skills		Professional Skills	

Good Luck Dr. Fathi Abdelazeem Abdelmgeed