

**STRUCTURES 1
CONSTRUCTION DESIGN 2
BUILDING STRUCTURES 5**

EXAMINATION : Semester 2, 2000

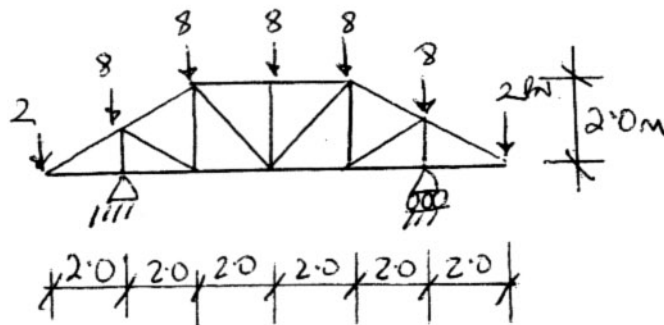
TIME : 2 HOURS

INSTRUCTIONS:-

1. Attempt any two questions [40 marks total]
2. State any assumptions made
3. Any references are permitted

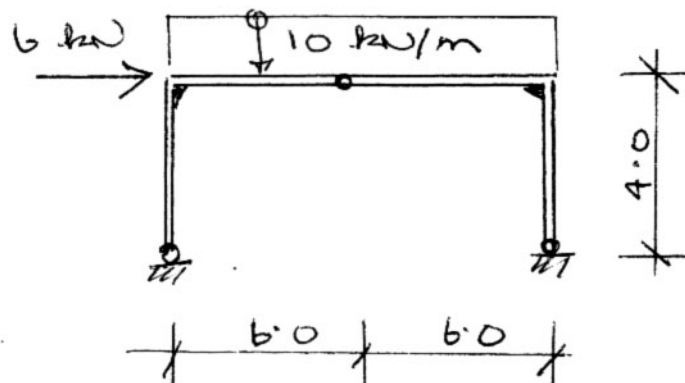
Question 1

Calculate the forces in all members of this loaded truss. [20 marks]



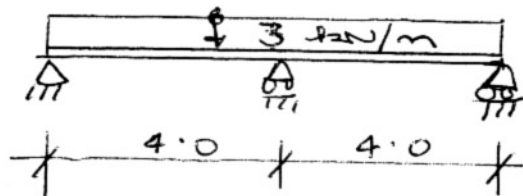
Question 2

Calculate and draw the shear force and bending moment diagrams for this loaded frame. Include all maximum values and any points of contraflexure. [20 marks]



Question 3

- 3)a] Calculate and draw the shear force and bending moment diagrams for this loaded beam. [16 marks]
- 3)b] If the structure was modified to consist of two separate beams A-B and B-C, how would this affect the bending moment diagram? Sketch the BMD and make a note of the differences. [4 marks]



END OF QUESTIONS