

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

EXAMINATION : Semester 2, 2000

TIME : 2 HOURS

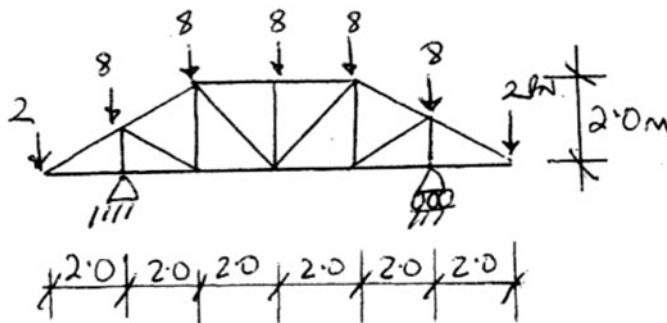
**INSTRUCTIONS:-**

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

**Question 1**

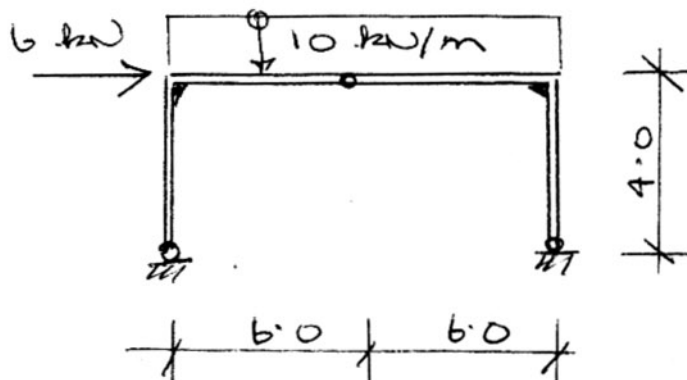
Calculate the forces in all members of this loaded truss.

[ 20 marks ]



**Question 2**

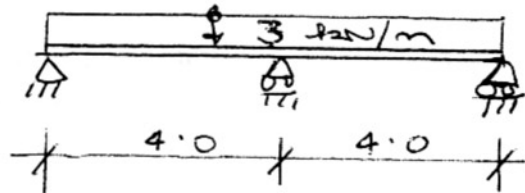
Calculate and draw the shear force and bending moment diagrams for this loaded frame. Include all maximum values and any points of contraflexure. [20 marks ]



**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. No calculations are required. [4 marks]



##### END OF QUESTIONS #####