



Answer the following questions

Clean Sketches and Proper Calculations are strictly required

Marks

[60 Marks]

Question 1 & 2

[30 marks]

- 1) Find the reactions for the following statically determinate beams Fig 1 & Fig 2 and the internal force diagrams, and sketch the maximum value of bending moment.

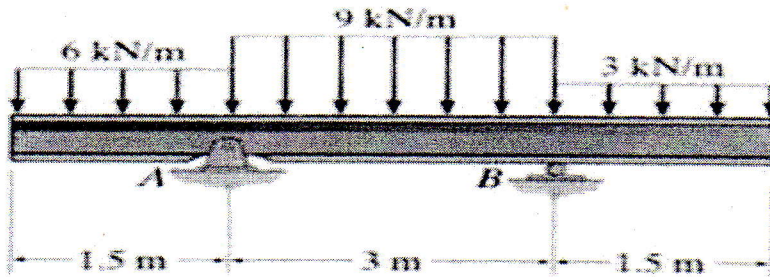


Fig. 1

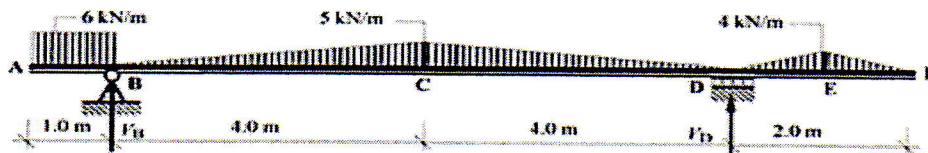
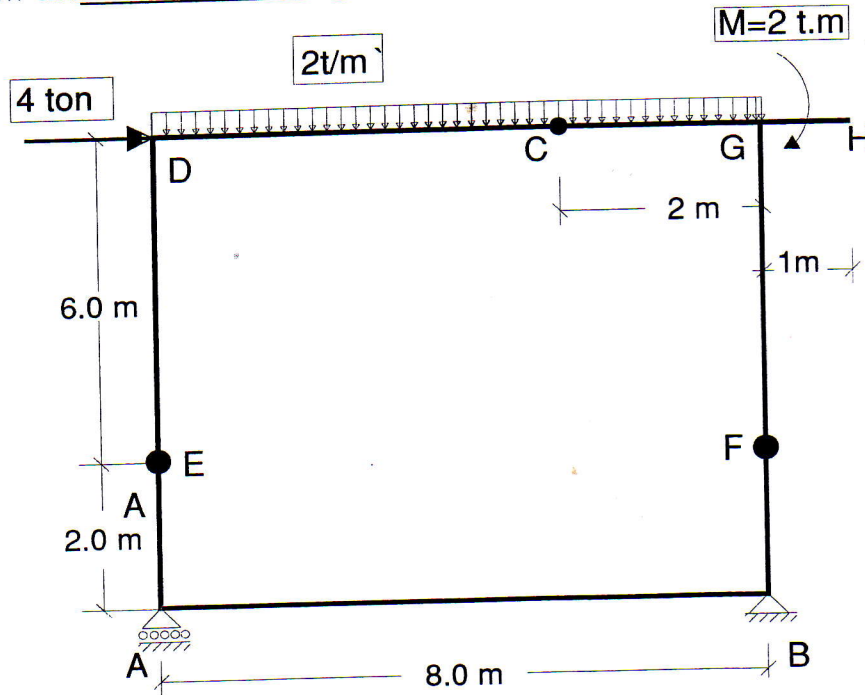


Fig 2

[15 marks]

Question 3

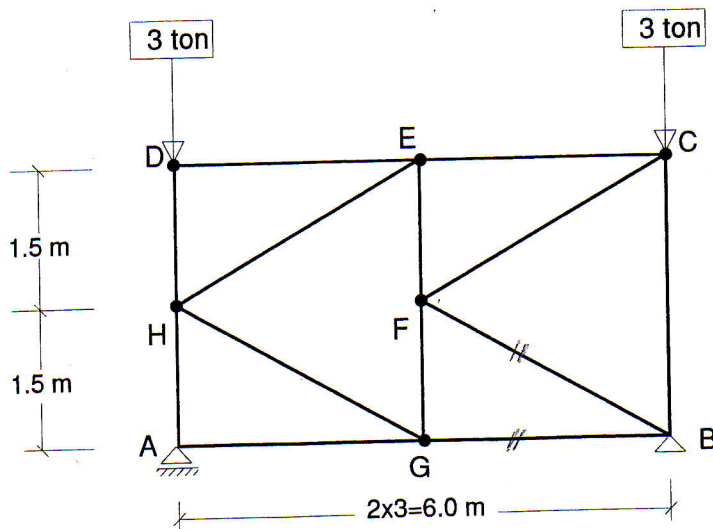
- 1- For the shown 3 hinged closed frame
- Draw the shear force diagram
 - Draw the bending moment diagram.
 - Draw the normal force diagram.



[15 marks]

Question 4

- 2- For the shown K-Truss calculate:
- The force in all elements using:
 - Joint method
 - Graphical method
 - The force in marked element using Section method.



Best wish's
Dr. Mohamed EL-Sabaawy