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Menoufia University

Faculty of Engineering, Shebin El-Kom

Arch. Eng. Department

Secound Semester Examination,2015

Date of Exam: /6/2015



Subject: Theory of Structure

Code : CVE127

Year: First Year-Arch Time Allowed: 3 hours Total Marks: 60 marks

Answer the following questions

Clean Sketches and Proper Calculations are strictly required Question 1 & 2

Marks [60 Marks] [30 marks]

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

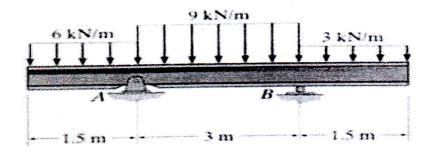


Fig. 1

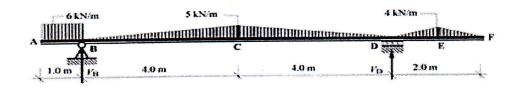
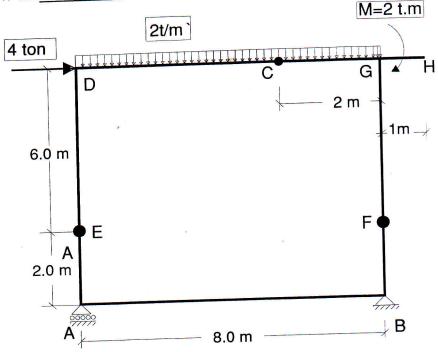


Fig 2

[15 marks]

Question 3

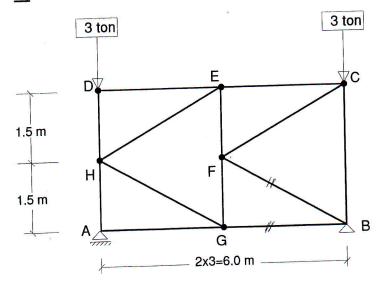
- 1- For the shown 3 hinged closed frame
 - a) Draw the shear force diagram
 - b) Draw the bending moment diagram.
 - c) Draw the normal force diagram.



Question 4

[15 marks]

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



Best wish's Dr. Mohamed EL-Sabaawy