

P4

[Total No. of Pages : 2

**Oct.-16/T.E./Insem.-4
T.E. (Civil) (Semester - I)
STRUCTURAL ANALYSIS - II
(2012 Pattern)**

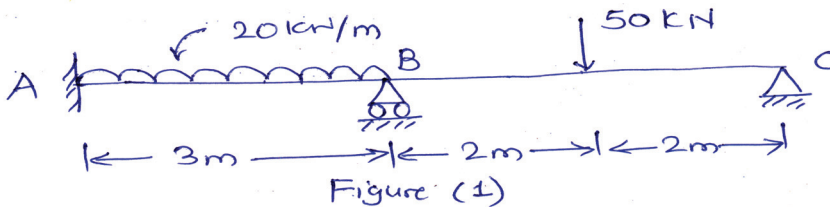
Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates:

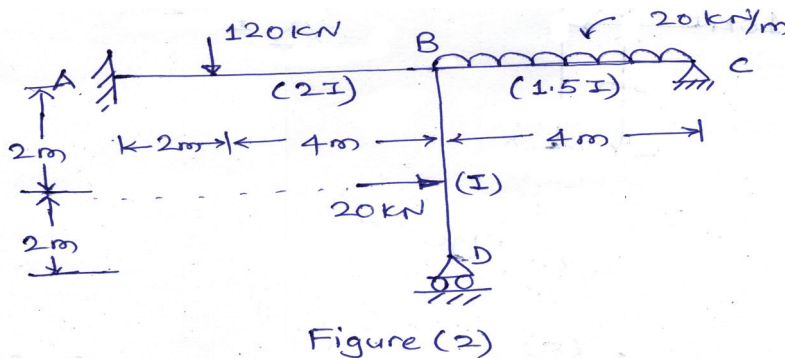
- 1) Solve Q1 or Q2, Q3 or Q4, Q5 or Q6.
- 2) Figure to the right indicate full marks.
- 3) Use of non - programmable calculator is allowed.
- 4) Assume suitable data, if necessary.

Q1) Determine support moments and draw BMD for the beam shown in Figure 1, by using Slope - Deflection method. [10]



OR

Q2) Analyze the frame shown in Figure 2, support 'A' is fixed, 'B' and 'C' are hinged. Draw BMD. [10]



Q3) Analyze the continuous beam as shown in Figure 3, by Moment Distribution Method. Draw BMD. [10]

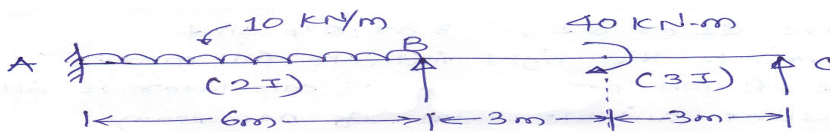


Figure (3)

P.T.O.

OR

Q4) Analyze the rigid frame shown in Figure 4, by Moment Distribution method.
Draw BMD. [10]

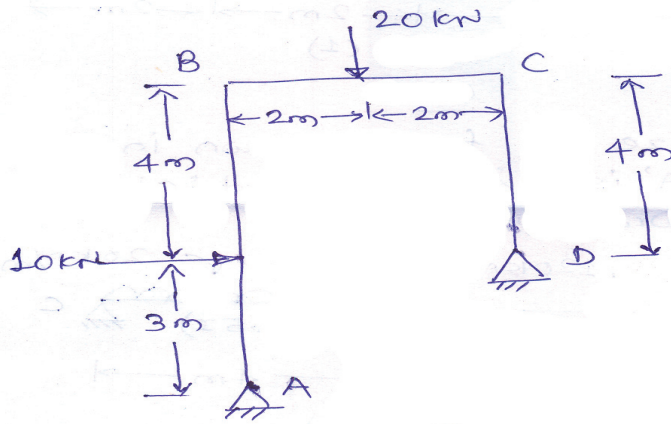


Figure (4)

Q5) Find out forces in all members of the truss. Consider cross - sectional area and material of all members same. [10]

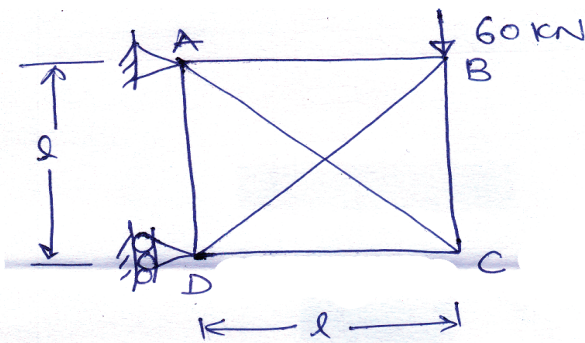


Figure (5)

OR

Q6) Analyse the beam shown in Figure 6, by Flexibility Matrix method.
Take $EI = \text{Constant}$. [10]

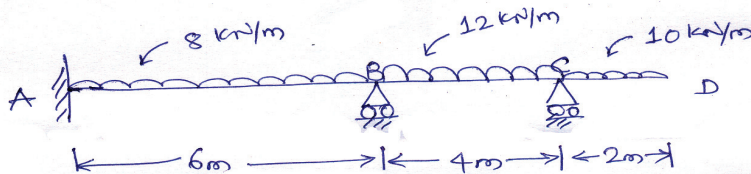


Figure (6)

