

B.E. Civil Engineering (Model Curriculum) Semester - VI
PCC-CE604 - Structural Analysis II

P. Pages : 4

Time : Three Hours

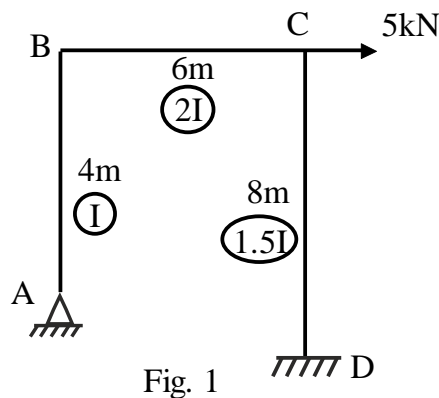


GUG/S/23/13735

Max. Marks : 80

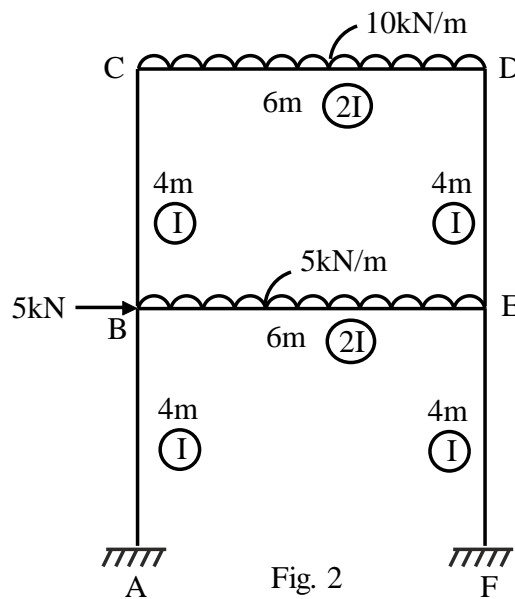
- Notes :
1. All questions carry equal marks.
 2. Due credit will be given to neatness and adequate dimensions.
 3. Assume suitable data wherever necessary.
 4. Illustrate your answers wherever necessary with the help of neat sketches.

1. Analyze the frame shown in fig. 1 using Kani's method and draw BMD. 16



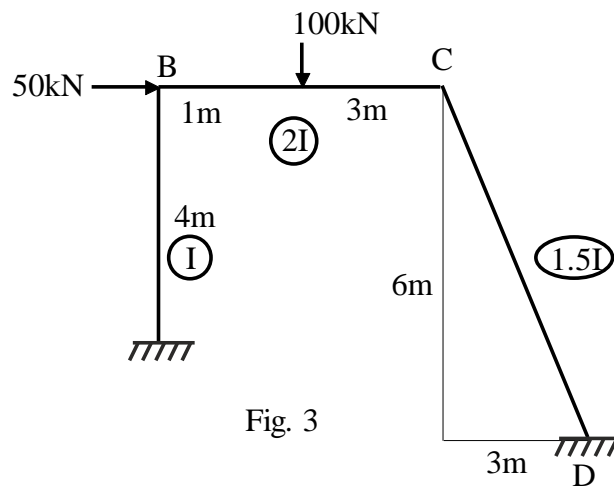
OR

2. Analyze the frame shown in fig. 2 by Kani's method and draw BMD. 16



3. Analyze the frame shown in fig. 3 by moment distribution method and draw BMD.

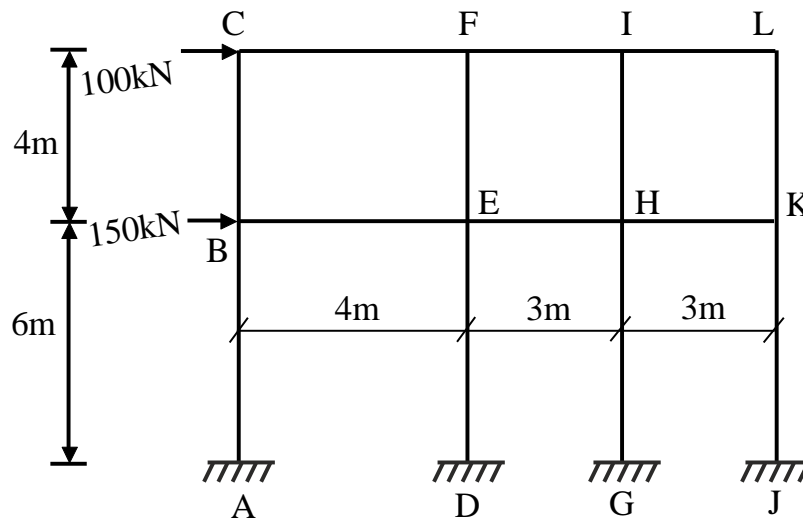
16



OR

4. Analyze the frame shown in fig. 4 by Portal method Draw BMD. EI is uniform.

16



5. Analyze the beam shown in fig. 5 by column analogy method and draw BMD.

16

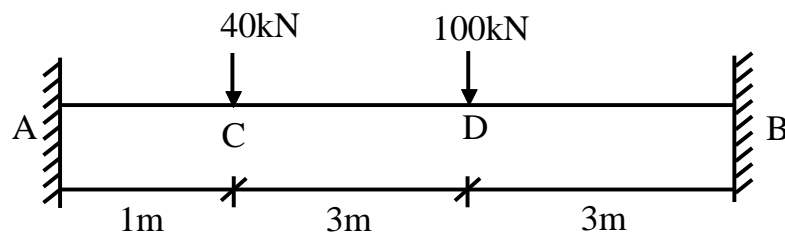


Fig. 5

AC = 2I
CD = 2I
DB = I.

OR

6. Analyze the beam shown in fig. 6 by column analogy method and draw BMD. 16

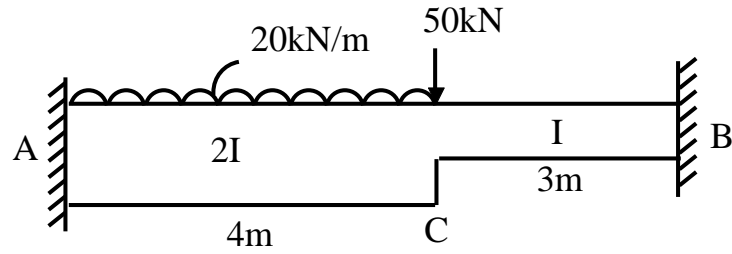


Fig. 6

7. Analyze the beam by flexibility method and draw BMD. 16

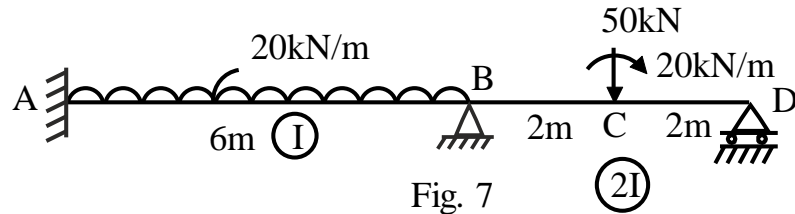


Fig. 7

OR

8. Analyze the frame by moment distribution method and draw BMD. 16

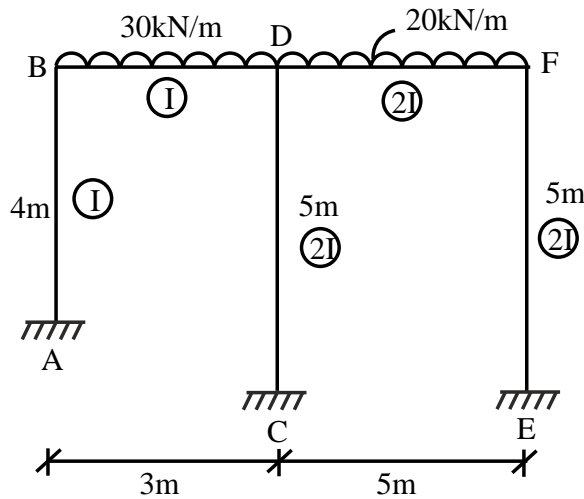
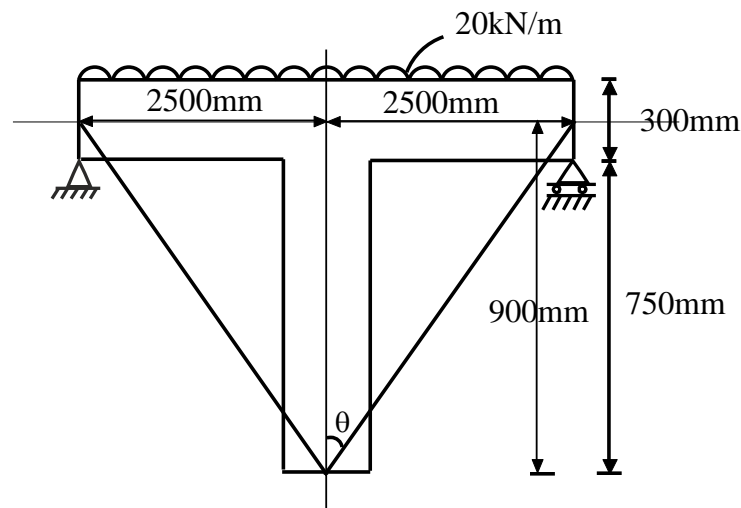


Fig. 8

9. Analyze a following structure by strain energy method. 16



OR

10. Write short notes on following in detail **any two**.

- | | |
|--|----------|
| 1) Circular polarization. | 8 |
| 2) Types of strain gauges and its application. | 8 |
| 3) Equilibrium and compatibility conditions. | 8 |
