

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

P. Pages : 3

Time : Three Hours



GUG/W/23/13735

Max. Marks : 80

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

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

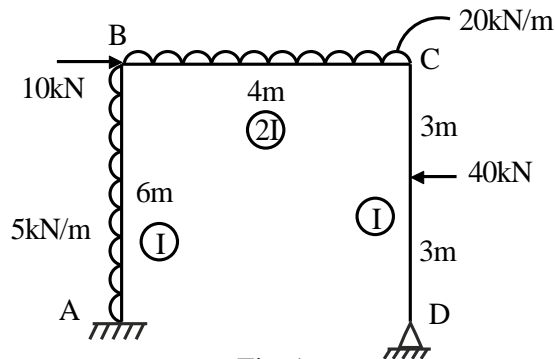


Fig. 1

OR

2. Analyze the frame shown in figure 2 by Kani's method. Draw BMD 16

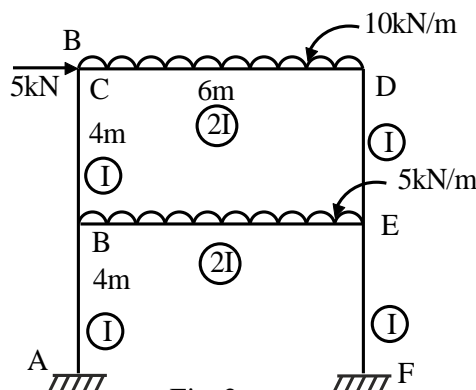


Fig. 2

3. Using Moment distribution method, Analyze frame shown in fig. 3 and draw BMD 16

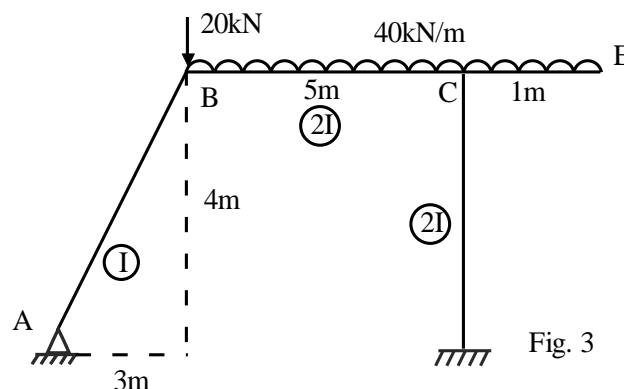
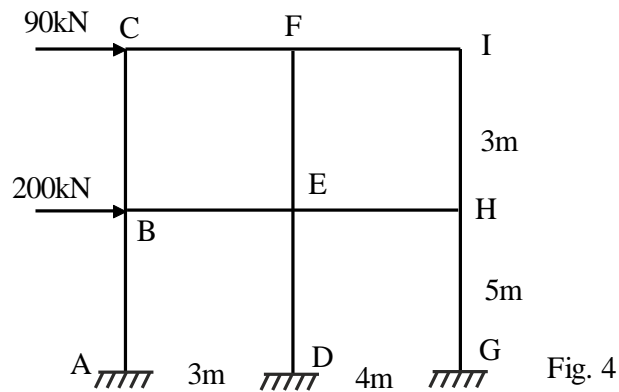


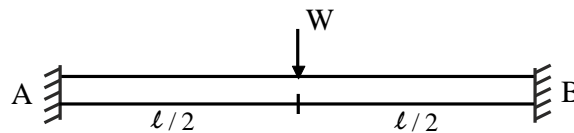
Fig. 3

OR

4. Analyze the frame shown in figure 4 by portal method. Draw BMD. 16



5. A fixed Beam of span ℓ carries a concentrated load 'w' at midpoint of Beam. Determine support moments using column analogy method. 16



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

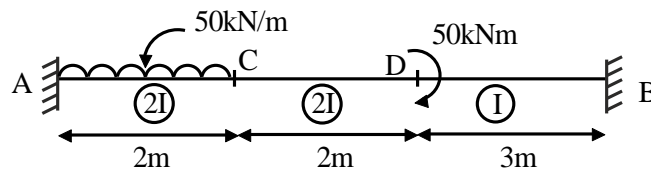


Fig. 6

7. Analyze the beam as shown in figure 7 by flexibility matrix method and draw BMD. 16

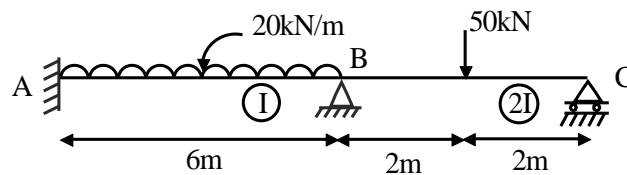


Fig. 7

OR

8. Analyze the three legged frame as shown in figure 8 by moment distribution method 16

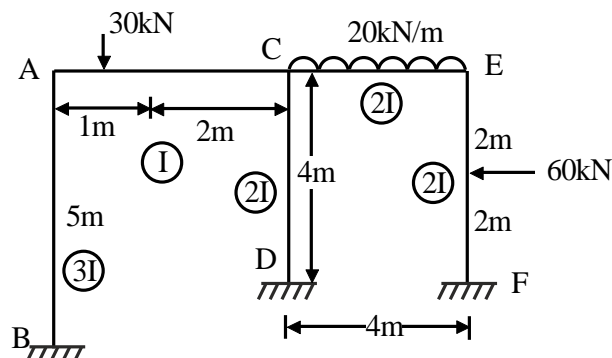
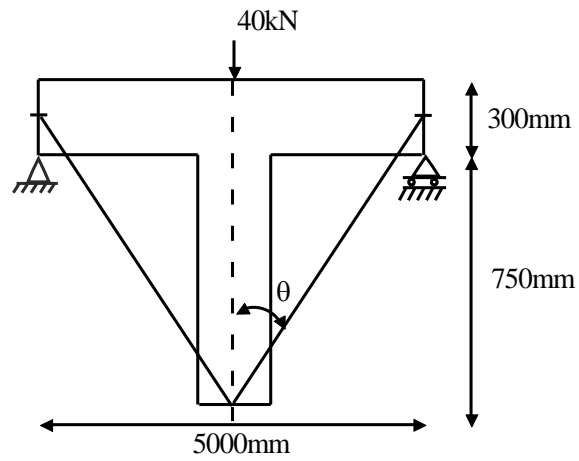


Fig. 8

9. Analyze the following structure by strain energy method.

16



OR

10. Write notes on

16

- i) Circular Polariscopes.
- ii) Type of strain gauges and applications.
- iii) Equilibrium conditions.
- iv) Compatibility conditions.
