

B.Arch. Fourth Semester (Architecture) (CGS)
10032 : Architectural Structure - III : 04 AR 05

P. Pages : 3

Time : Three Hours



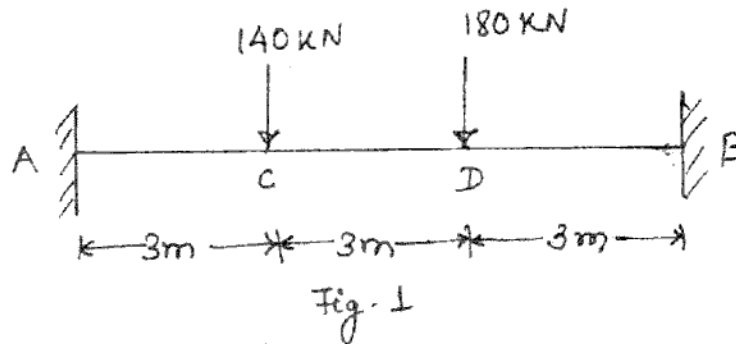
AU - 2616

Max. Marks : 80

- Notes :
1. All question carry equal marks.
 2. Due credit will be given to neatness and adequate dimensions.
 3. Assume suitable data wherever necessary.
 4. Illustrate your answer necessary with the help of neat sketches.
 5. Use of pen Blue/Black ink/refill only for writing the answer book.

1. Draw resultant S.F. and B.M. diagrams for fixed beam as shown in fig. 1

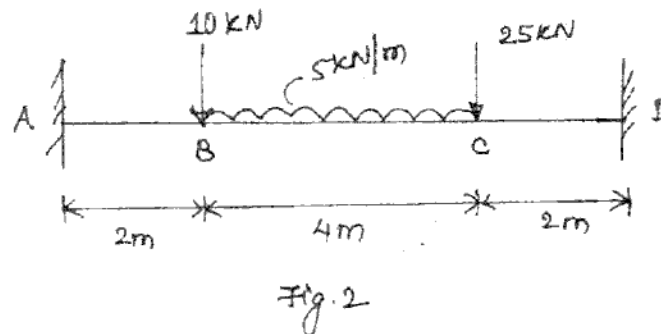
16



OR

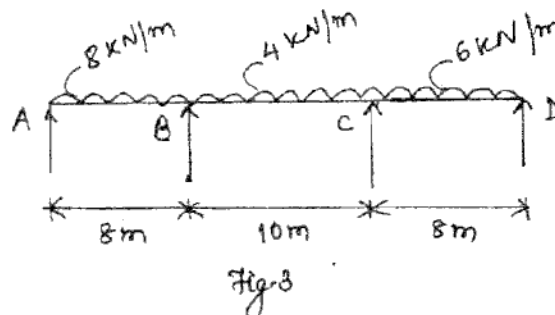
2. Draw resultant S.F.D. and B.M.D. for fixed beam as shown in fig. 2.

16



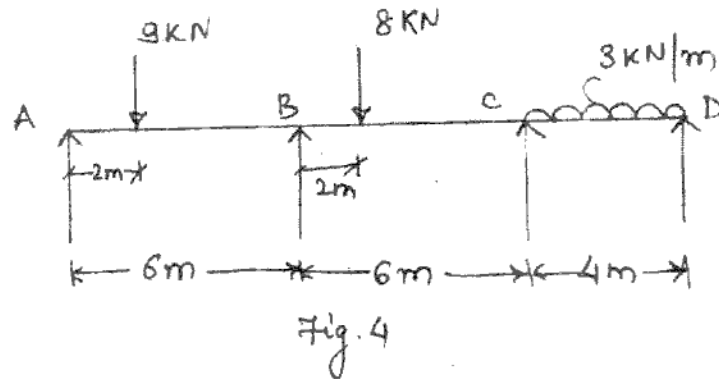
3. Draw S.F.D. and B.M.D. for continuous beam as shown in fig. 3 and determine moments at supports.

16

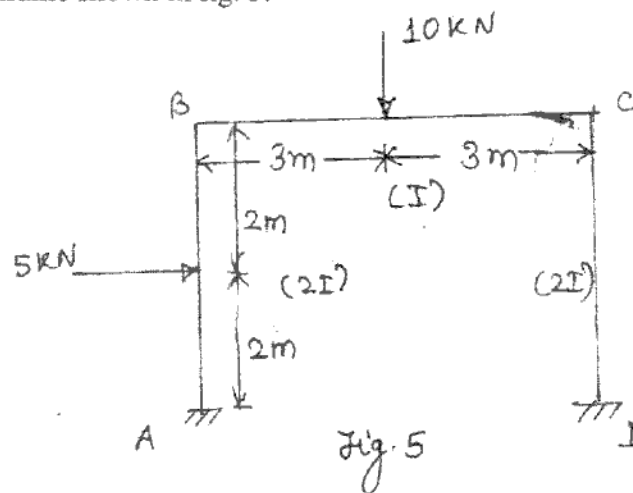


OR

4. A continuous beam ABCD simply supported at A, B, C & D loaded as shown in the fig. 4 find the moments over the beam and draw B.M.D. and S.F.D. 16

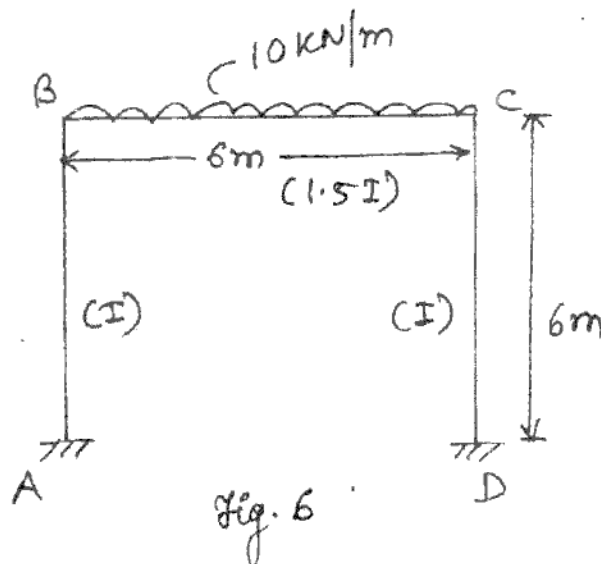


5. By using moment distribution method, find fixed end moments of A, B, C & D for following portal frame shown in fig. 5. 16



OR

6. Analyze the portal frame as shown in fig. 6 by moment distribution method. 16



7. Find the support moments and the reactions at the supports for the beam shown in fig. 7. 16

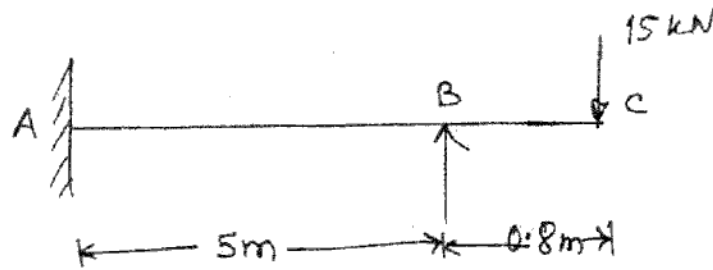


Fig. 7

OR

8. Find the support moments and reactions for the beam shown in fig. 8. 16

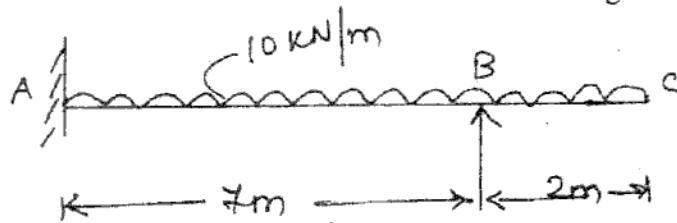


Fig. 8

9. Write down the procedure for design of simple load bearing foundations in detail alongwith neat sketches. 16

OR

10. What are the different causes of failure of foundation systems ? Explain. 16
