CBCS SCHEME

USN | | | | | | | | | |

18CV52

Fifth Semester B.E. Degree Examination, June/July 2024
Analysis of Indeterminate Structures

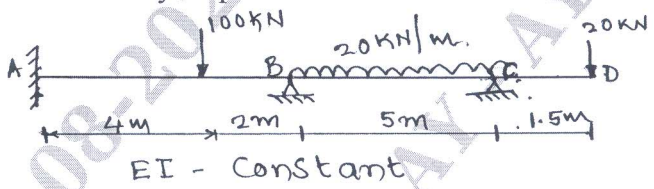
Time: 3 hrs. Max. Marks: 100

Note: ***Answer any FIVE full questions, choosing ONE full question from each module.***

Module-1

1 Analyze continuous beam ABCD by slope deflection method. Construct SFD and BMD.

Fig.Q1

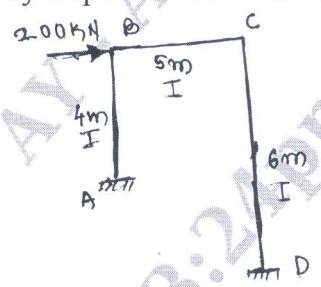


(20 Marks)

OR

2 Analyze the frame shown in Fig.Q2 by slope deflection method and draw BMD.

Fig.Q2



(20 Marks)

Module-2

3 Analyze the beam shown in Fig.Q.3 by moment distribution method. Draw BMD EI is constant. **(20 Marks)**

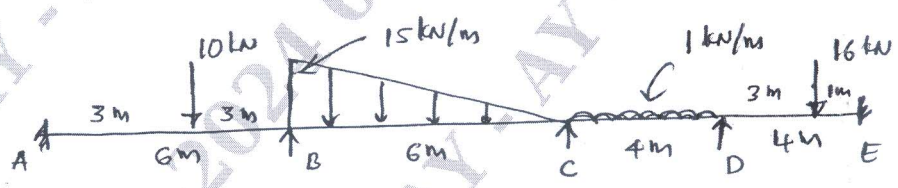
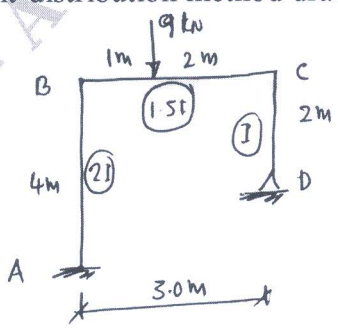


Fig.Q.3.

OR

4 Analyze the portal frame by moment-distribution method draw BMD. **(20 Marks)**

Fig. Q4.



Module-3

5 Analyse the continuous beam shown in Fig Q5 by moment distribution method and draw BMD.

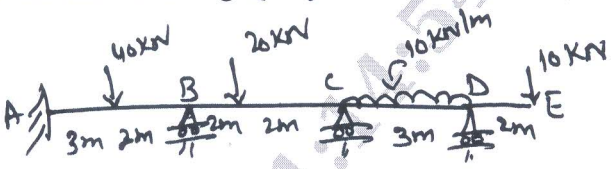


Fig. Q5.

(20 Marks)

OR

6 Analyse the frame shown in Fig Q6 by moment distribution method and draw BMD and SFD.

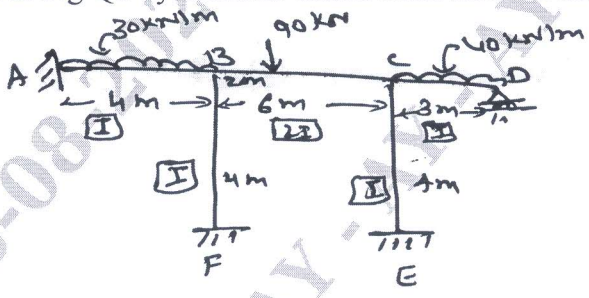


Fig. Q6.

(20 Marks)

Module-4

7 Analyze the continuous beam shown in Fig.Q7 by flexibility method. Draw BMD. **(20 Marks)**

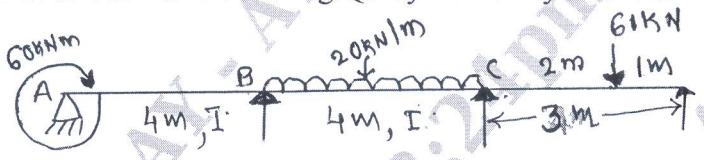


Fig.Q7

OR

8 Analyze frame shown in Fig.Q8 by flexibility matrix approach. Draw BMD. **(20 Marks)**

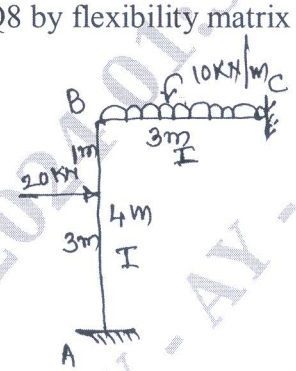


Fig.Q8

Module-5

9 Analyze the continuous beam by stiffness matrix method (system approach) shown in Fig.Q.9. Draw BMD EI is constant. **(20 Marks)**

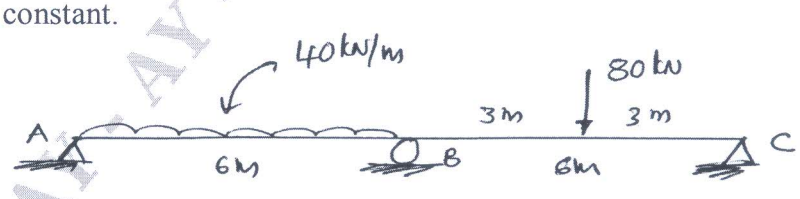


Fig. Q9.

OR

10 Find the forces in the members of a joint 'O' shown in Fig.Q.10 by stiffness matrix method. (system approach). **(20 Marks)**

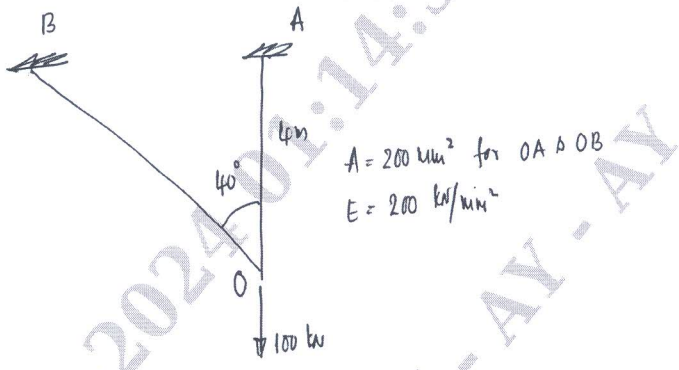


Fig. Q10.

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