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15CV52

Fifth Semester B.E. Degree Examination, Dec.2017/Jan.2018
Analysis of Indeterminate Structures

Time: 3 hrs.

Max. Marks: 80

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

Module-1

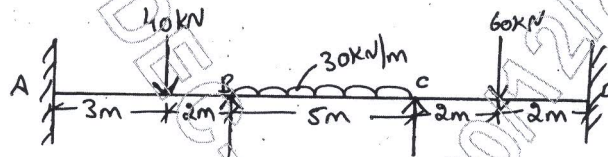1 Analyze the continuous beam shown in Fig.Q1 by slope deflection method. Draw BMD and EC.

Fig.Q1 (16 Marks)

OR

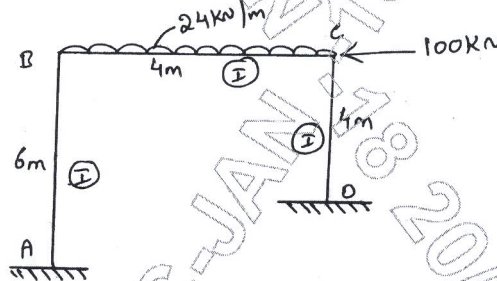2 Analyze the portal frame shown in Fig.Q2 by slope deflection method. Draw BMD.

Fig.Q2 (16 Marks)

Module-2

3 Analyze the continuous beam by moment distribution method shown in Fig.Q3. The support 'B' sinks by 10 mm. Take EI = 4000 kN-m². Draw BMD and EC.

Fig.Q3 (16 Marks)
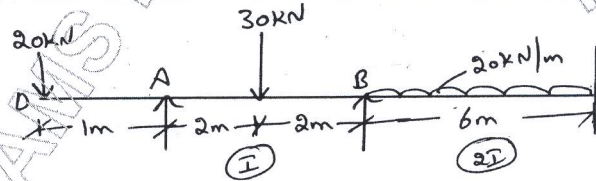
OR

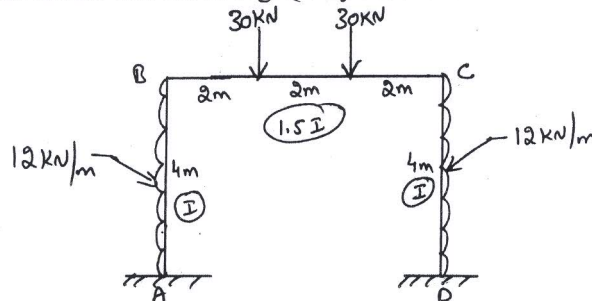4 Analyze the frame shown in Fig.Q4 by moment distribution method. Draw BMD.

Fig.Q4 (16 Marks)

Module-3

5 Analyze the continuous beam by Kani's method. Shown in Fig.Q5. Draw BMD.
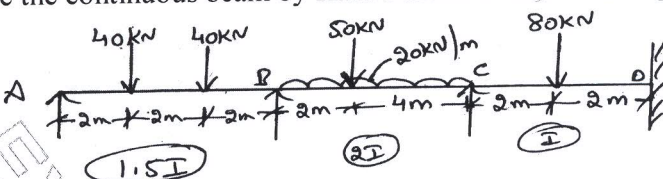

Fig.Q5   **(16 Marks)**

OR

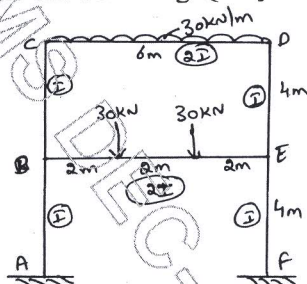**6** Analyze the frame shown in Fig.Q6 by Kani's method. Draw BMD.

Fig.Q6   **(16 Marks)**

Module-4

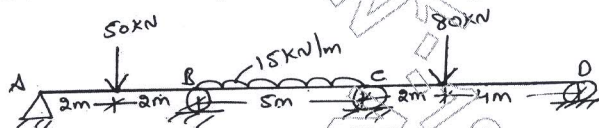**7** Analyze the beam shown by flexibility matrix method. Draw BMD.

Fig.Q7   **(16 Marks)**

OR

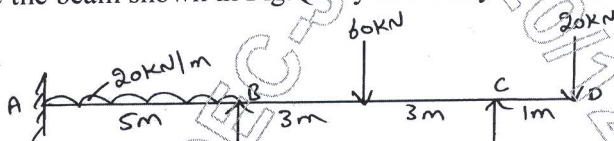**8** Analyze the beam shown in Fig.Q8 by flexibility matrix method. Draw BMD.

Fig.Q8   **(16 Marks)**

Module-5

9 Analyze the continuous beam shown in Fig.Q9 by stiffness matrix method. Draw BMD.

Fig.Q9   **(16 Marks)**

OR

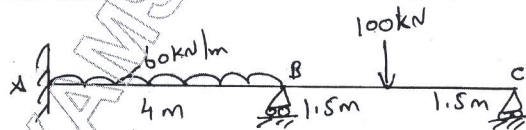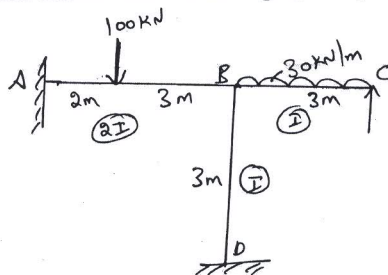**10** Analyze the portal frame shown in Fig.Q10 by stiffness matrix method. Draw BMD.

Fig.Q10   **(16 Marks)**

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