CBCS SCHEME

USN | | | | | | | | | | **15CV52**

Fifth Semester B.E. Degree Examination, Aug./Sept.2020

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 and sketch BMD.
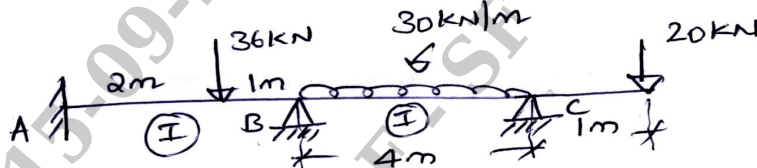

Fig.Q1 **(16 Marks)**

OR

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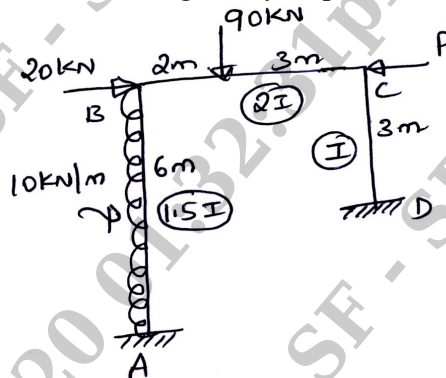

Fig.Q2 **(16 Marks)**

Module-2

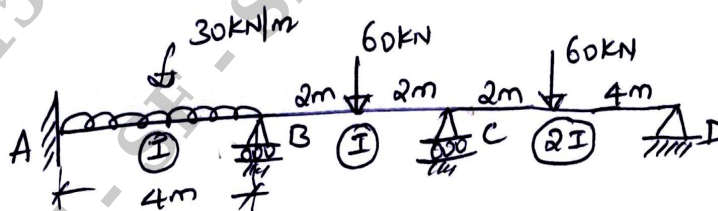**3** Determine the moments for the given continuous beam shown in Fig.Q3 by moment distribution method. Sketch BMD.

Fig.Q3 **(16 Marks)**

OR

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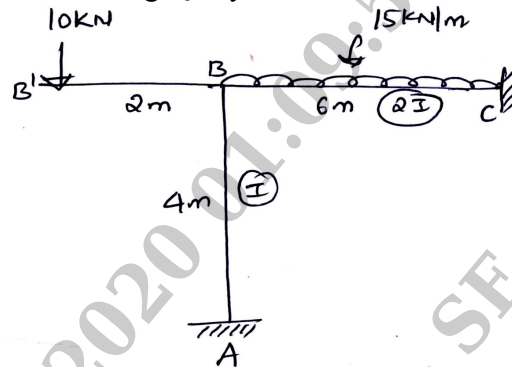

Fig.Q4   **(16 Marks)**

Module-3

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

Fig.Q5   **(16 Marks)**

OR

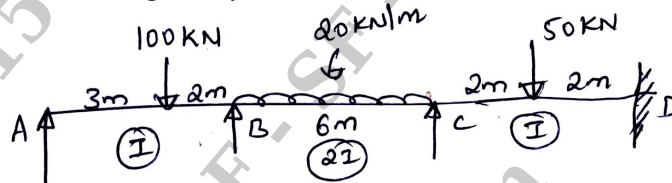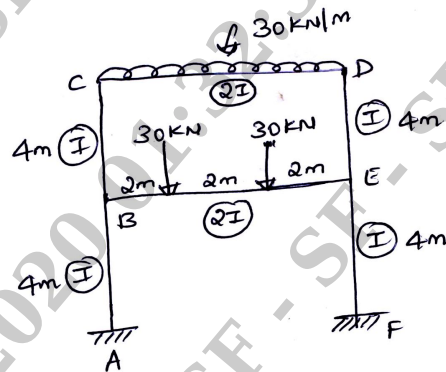**6**   Analyze the given frame shown in Fig.Q6 using Kani's method. Draw BMD.

Fig.Q6   **(16 Marks)**

Module-4
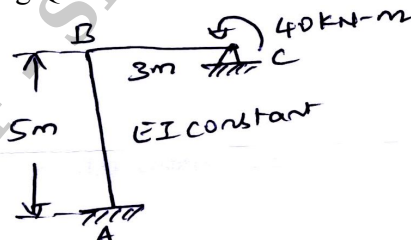
7   Analyze the frame shown in Fig.Q7 and sketch BMD. Use flexibility method.

Fig.Q7   **(16 Marks)**

OR

8   Using the flexibility method, analyze the pin-jointer frame in Fig.Q8. The cross-sectional areas A and E for all members is same.
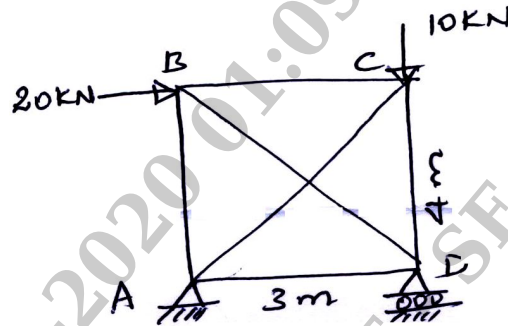
Fig.Q8   **(16 Marks)**

Module-5

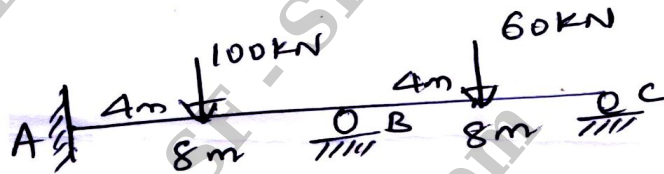**9**   Using displacement method, analyze the continuous beam shown in Fig.Q9 and sketch BMD.

Fig.Q9   **(16 Marks)**

OR

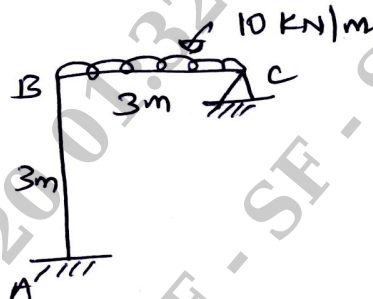**10**   Analyze the frame shown in Fig.Q10 by stiffness method.

Fig.Q10   **(16 Marks)**

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