Total No. of Questions : 8] *[Total No. of Printed Pages : 4*

Roll No .....

CE-5003 (CBGS)

B.E. V Semester

Examination, December 2017

Choice Based Grading System (CBGS)

Structural Analysis - II

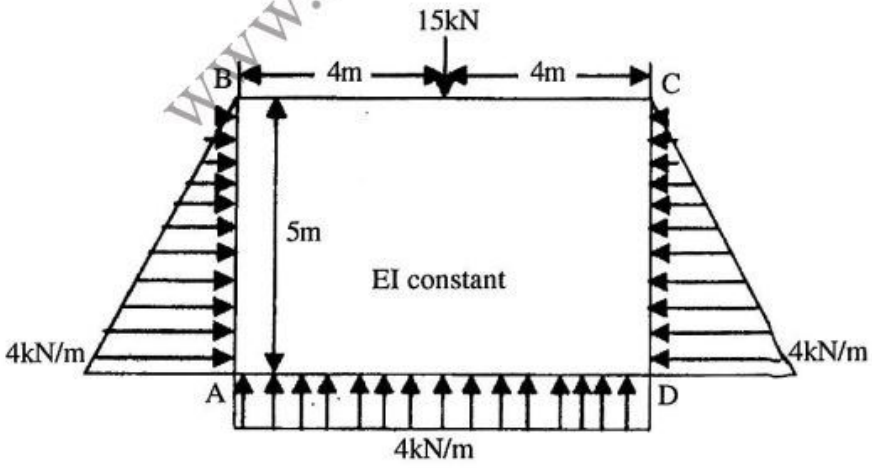
Time : Three Hours

Maximum Marks : 70

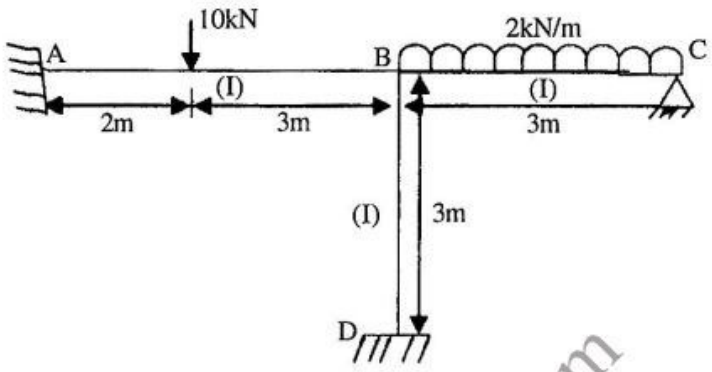
Note: i) Attempt any five questions.

ii) All questions carry equal marks.

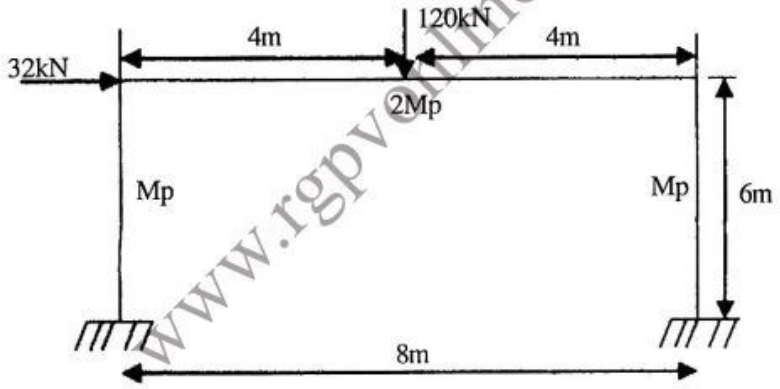
1. Analyse the frame by Moment distribution method.



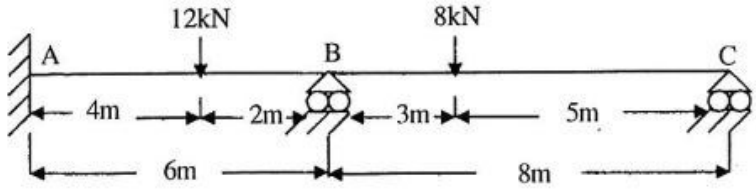
2. Analyse the beam by Kani's method.



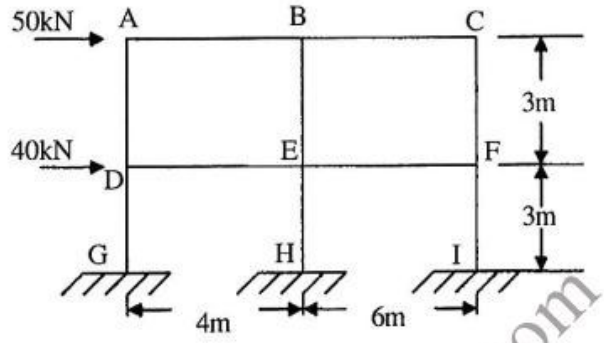
3. A portal frame is loaded upto collapse as shown in figure. Find plastic moment of resistance required.



4. Analyse the continuous beam as shown in fig. by flexibility matrix method.

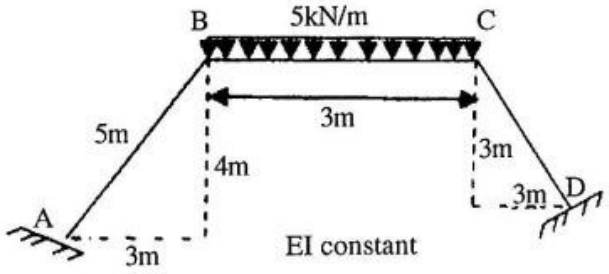


5. Analyse the frame as shown in figure by Portal method.



6. A horizontal beam ABC is hinged at A and simply supported at B. The span is 50m. The cantilevered portion BC is 6m long. Draw the influence line for bending moment for the points D and E respectively 12m from A and 4m from. C hence find the maximum (+/–) Bending moments at D and the maximum bending moment at E due to a load of 1kN/m of a length 3m. state the corresponding position of the load.

7. Analyse the Frame as shown in Fig.



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8. Define the following:
   i) Plastic moment capacity
   ii) Collapse load
   iii) Working load
   iv) Load factor
   v) Factor of safety
   vi) Shape factor

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