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09ENG4.5

Fourth Semester B.Arch. Degree Examination, Dec.2016/Jan.2017
Structures - IV

Time: 3 hrs. Max. Marks:100

Note: ***Answer FIVE full questions.***

1 a. Define determinate and indeterminate structures. **(04 Marks)**

2 b. Analyse the propped cantilever beam shown in Fig Q1 (b). Draw SFD and BMD. **(16 Marks)**

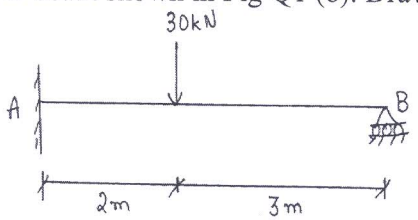

Fig Q1(b)

2 a. Determine the degree of indeterminacy for propped cantilever beam and fixed beam. **(04 Marks)**

b. Analyse the fixed beam shown in Fig Q2 (b). Draw SFD and BMD. **(16 Marks)**

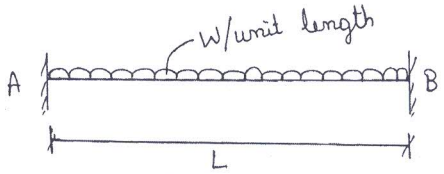

Fig Q2(b)

3 Analyse the continuous beam shown in Fig Q3 by three moment theorem. Draw SFD and BMD. EI = constant. **(20 Marks)**

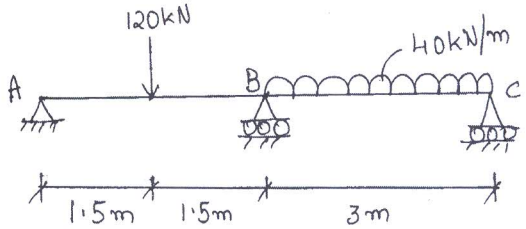

Fig Q3

4 Analyse the continuous beam shown in Fig Q4 by three moment theorem. Draw SFD and BMD. **(20 Marks)**

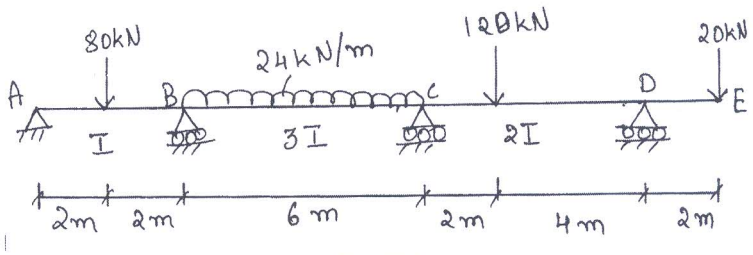

Fig Q4

5 Analyse the continuous beam shown in Fig Q5 by three moment theorem. Draw BMD.

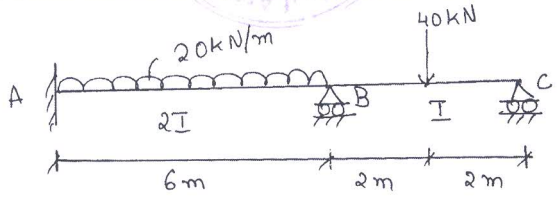

Fig Q5

(20 Marks)

6 Analyse the beam shown in Fig Q6. by moment distribution method. Draw SFD and BMD.

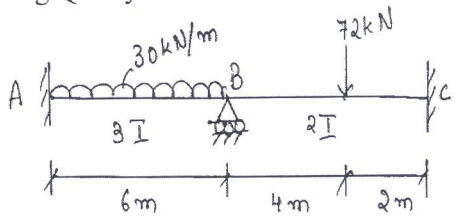

Fig Q6

(20 Marks)

7 Analyse the beam shown in Fig Q7 by moment distribution method. Draw BMD.

(20 Marks)

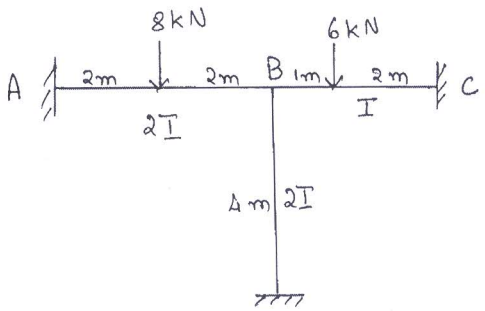

Fig Q7

8 Analyse the portal frame by moment distribution method shown in Fig Q8. Draw BMD.

(20 Marks)

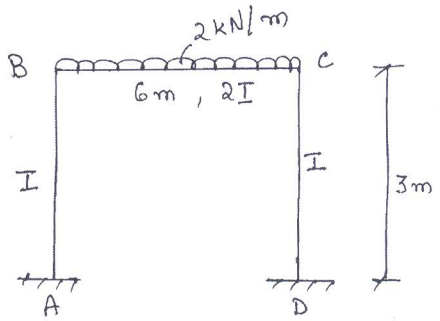

Fig Q8

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