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09ENG4.5

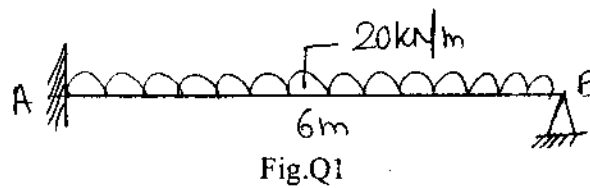
Fourth Semester B.Arch. Degree Examination, June/July 2015
Structures – IV

Time: 3 hrs.

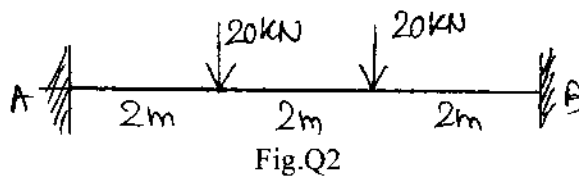
Max. Marks:100

Note: 1. Answer any FIVE full questions.
2. Missing data, if any, may be suitably assumed.

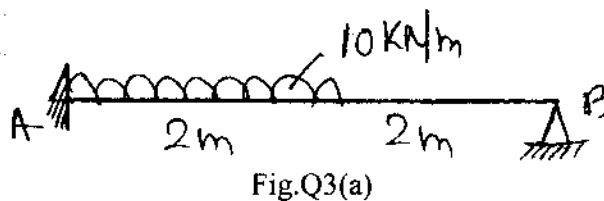
- 1 Analyse the beam shown in Fig.Q1 and draw SFD and BMD. (20 Marks)



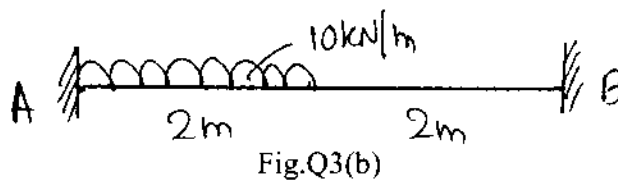
- 2 Analyse the fixed beam shown and draw SFD and BMD. Refer Fig.Q2. (20 Marks)



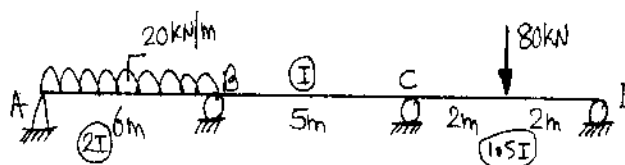
- 3 a. Analyse the beam and draw only BMD. Refer Fig. Q3(a). (10 Marks)



- b. Determine redundant " M_B " and " V_B " at 'B', for the beam shown in Fig. Q3(b). (10 Marks)



- 4 Analyse the continuous beam shown in Fig. Q5 by three moment theorem. Draw BMD and SFD. (20 Marks)



1 of 2

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42+8 - 50, will be treated as malpractice.

- 5 Analyse the continuous beam shown in Fig. Q5 by three moment theorem. The support 'C' sinks by 10 mm. Take $EI = 8000 \text{ kN-m}^2$. Draw BMD and SFD. (20 Marks)

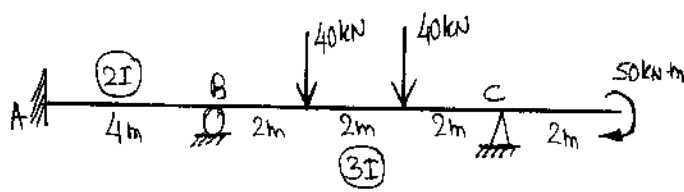


Fig.Q5

- 6 Analyse the continuous beam shown in Fig. Q6 by M.D. method. Draw BMD and SFD. (20 Marks)

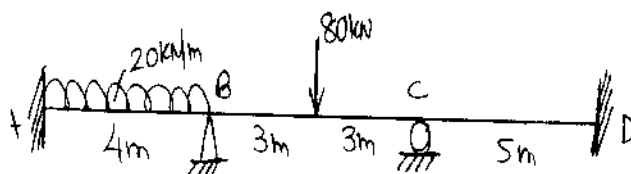


Fig.Q6

- 7 Analyse the frame shown in Fig.Q7 by M.D. method and draw only BMD. (20 Marks)

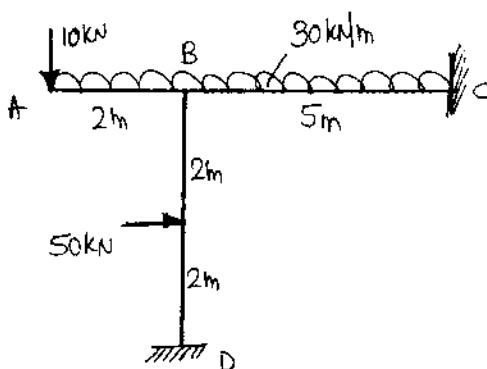


Fig.Q7

- 8 Analyse the portal frame shown in Fig. Q8 by M.D. method and draw only BMD. (20 Marks)

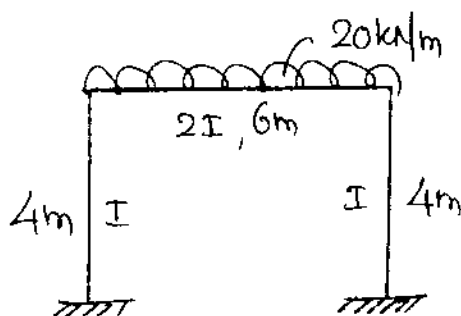


Fig.Q8
