

Fourth Semester B.Arch. Degree Examination, Dec.2019/Jan.2020
Structures - IV

Time: 3 hrs.

Max. Marks:100

Note: Answer any FIVE full questions.

- 1 Determine the reaction components in the propped cantilever shown in Fig Q1.

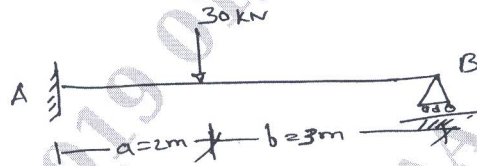


Fig Q1

(20 Marks)

- 2 Determine the fixed end moments developed in beam shown in Fig Q2

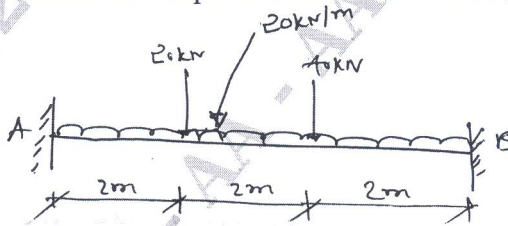


Fig Q2

(20 Marks)

- 3 The beam AB of span 6m is subjected to a uniformly distributed load of intensity 30kN/m as shown in Fig Q3. Determine fixe end moment developed.

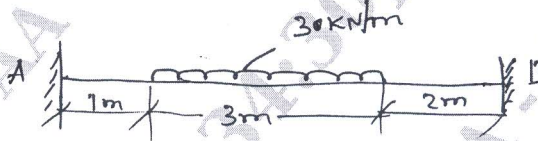


Fig Q3

(20 Marks)

- 4 Analyse the two span continuous beams shown in Fig Q4, using three moment theorem draw BMD.

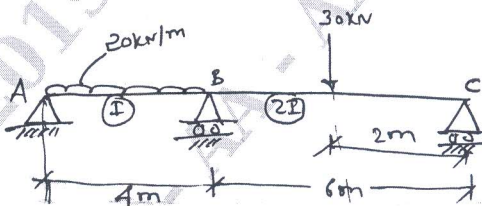


Fig Q4

(20 Marks)

- 5 Analyse the continuous beam shown in Fig Q5 by using three moment equation and draw bending moment diagram.

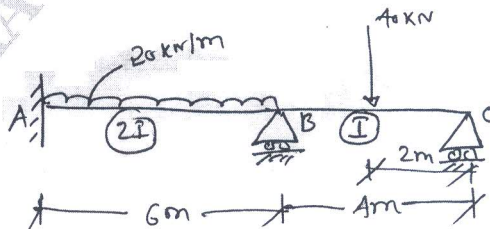


Fig Q5

(20 Marks)

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.

- 6 Determine the support moments in continuous beam by using three moments equations shown in Fig Q6. Draw BMD.

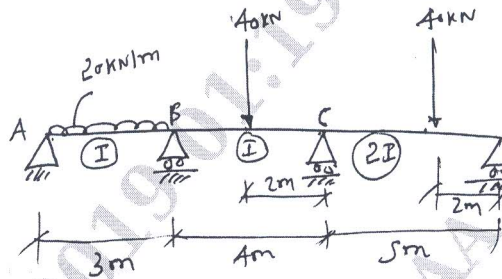


Fig Q6

(20 Marks)

- 7 Analyse the continuous beam shown in Fig Q7 and draw BMD by moment distribution method.

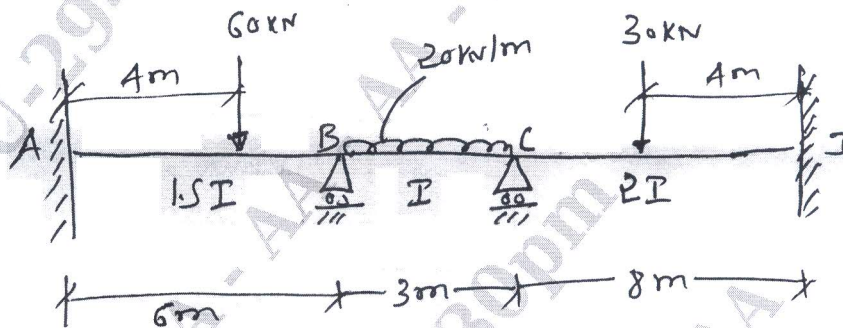


Fig 7

(20 Marks)

- 8 Analyse the symmetric portal frame shown in Fig Q8 by moment distribution method.

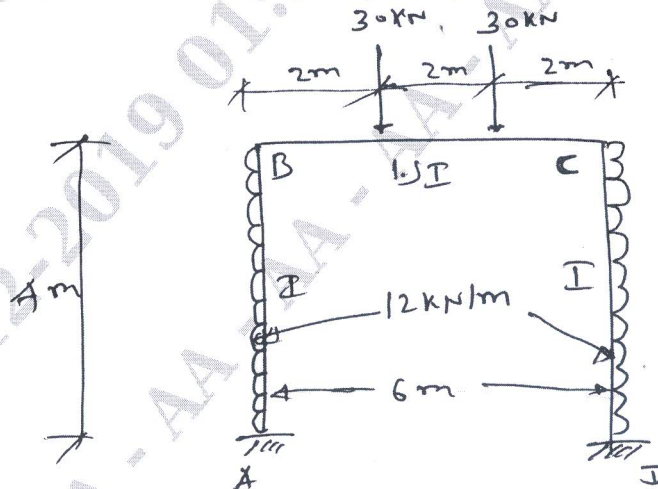


Fig Q8

(20 Marks)
