

Unit III

No. of Printed Pages : 05

Roll No.

5. Draw Bending Moment and Shear force Diagram for the following beam. Also determine point of maximum Bending Moment and point of Contra-flexure. **10**

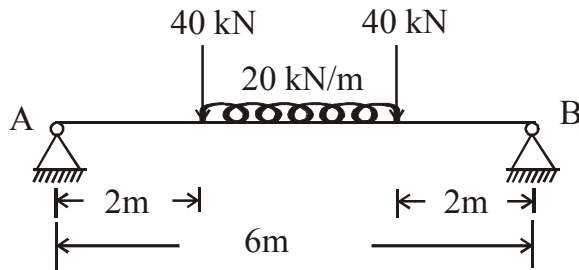


Fig. 4

6. Determine the mid-point deflection in the given beam. **10**

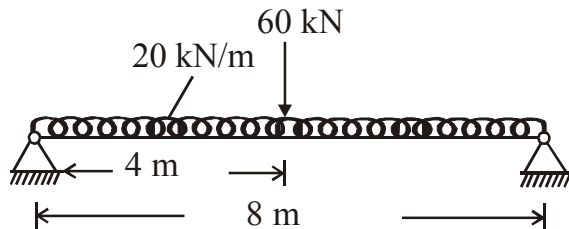


Fig. 5

2002

B. Arch. EXAMINATION, Dec. 2017

(First Semester)

(Old Scheme) (Re-appear Only)

(Arch.)

AR-105-G

STRUCTURAL DESIGN-I

Time : 3 Hours]

[Maximum Marks : 50

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks. Assume suitable data if necessary.

Unit I

1. (a) What is equilibrium ? State condition of static equilibrium. 5
- (b) Draw Free Body diagram of the following Fig. 1 : 5

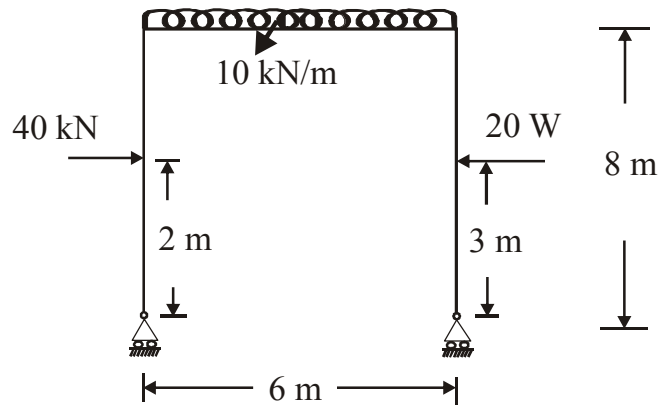


Fig. 1

2. (a) Find out the support reaction of the following Fig. 2 : 5

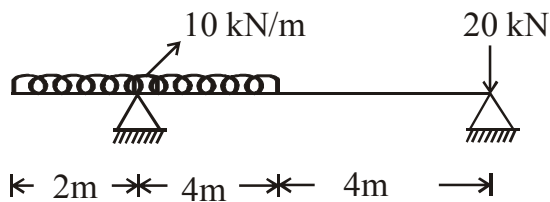


Fig. 2

- (b) What is static determinacy and indeterminacy ? Explain with suitable example. 5

Unit II

3. (a) Write difference between method of joints and methods of sections. 5
- (b) What are the different types of support condition on beam ? Explain with examples. 5
4. Find the forces in different members of the perfect truss. 10

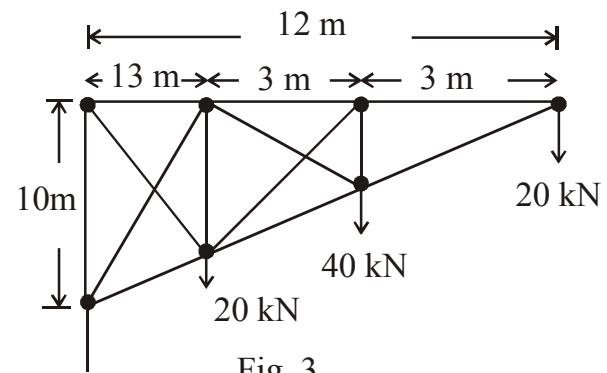


Fig. 3

Unit IV

7. Find centre of gravity of the following fig 6 : **10**

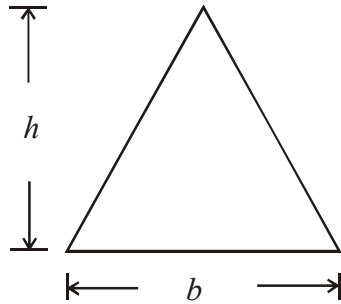


Fig. 6

8. Find moment of INERTIA for the following Fig. 7 about bittun X-X axis : **10**

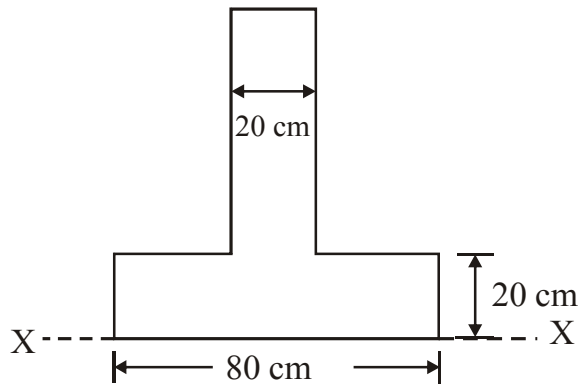


Fig. 7

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Unit IV

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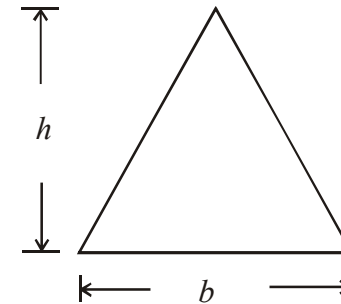


Fig. 6

8. Find moment of INERTIA for the following Fig. 7 about bittun X-X axis : **10**

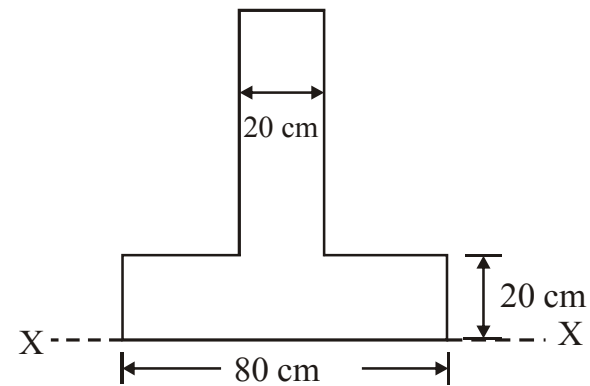


Fig. 7

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