



(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 181208

Roll No.

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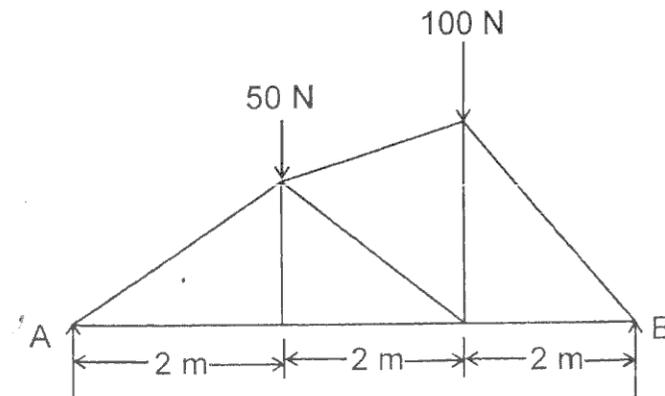
B.Arch. (Semester-I)
THEORY EXAMINATION 2015
ARCHITECTURAL STRUCTURES-II
[CARRY OVER]

Time : 3 Hours]

[Total Marks : 50

Note: Attempt any Five question. All question carry equal marks.

1. Analyse the truss given below by graphical or analytical method and make force table:

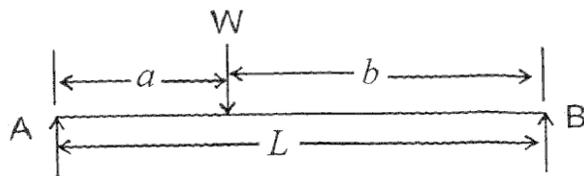


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(1)

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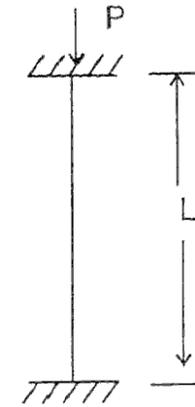
2. (a) Define determinate and indeterminate truss.
 (b) Define the following:
 - (i) Bow element
 - (ii) Link polygon
 - (iii) Polar diagram
 - (iv) Degree of redundancy
 - (v) Imperfect frame
3. (a) List various types of cement and their main use.
 (b) Explain constituents of cement and their required properties to get better cement.
4. (a) Write short note on w/c ratio and its effect on strength of concrete.
 (b) Define the cube strength of concrete and its specification based on strength.
5. Determine the reaction R_B in a propped cantilever using consistent deformation.
6. Determine the max deflection in a beam using double integration:



(2)

[Contd...

7. Determine the buckling strength of a column fixed at both ends as shown below:



—X—

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(3)

525