

Roll No.

Total No. of Pages :02

Total No. of Questions : 08

**B. Architecture (Sem.-1)**  
**THEORY OF STRUCTURE**

Subject Code : AR-135

M.Code : 45009

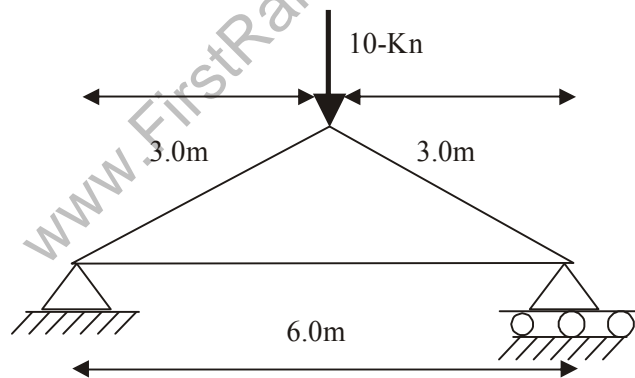
Time : 3 Hrs.

Max. Marks : 50

**INSTRUCTION TO CANDIDATES :**

1. Attempt FIVE questions out of EIGHT Questions.
2. All questions carry equal marks
3. Question No. 1 is compulsory

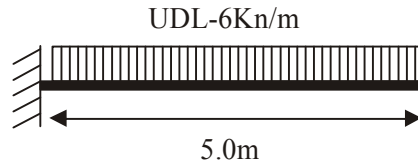
1. a. Draw & specify various types .of frames.  
b. What is perfect frame?  
c. Differentiate between bending stress and compressive stress.  
d. What is section modulus ?  
e. What do you mean by Moment of resistance of section?
2. Find forces in each member of following?



**Fig.1**

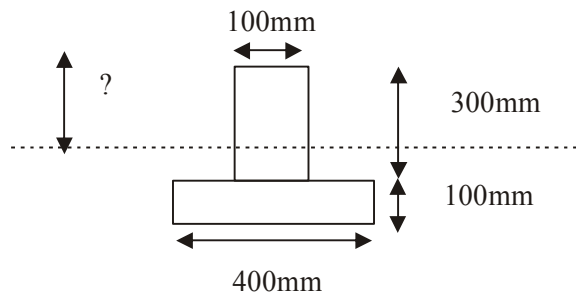
3. What are coplanar forces, explain triangle law of forces?
4. Derive Moment of Inertia of rectangle by integration method?

5. Draw B.M.D a shear force diagram for following cantilever case.



**Fig.2**

6. Find centre of gravity for following figure.



**Fig.3**

7. Find Moment of inertia about c.g of above planer section.
8. Explain theory of bending in rectangular beam section.

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**