



Printed Pages : 2

AR-802

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

**PAPER ID : 8555**

Roll No.

**B. Arch.**

(SEM. VIII) EXAMINATION, 2006-07

**CONSTRUCTION & MATERIALS - VIII**

*Time : 3 Hours]*

*[Total Marks : 50*

- Note :**
- (1) Answer **four** questions, of which question No.1 is **compulsory**.
  - (2) Use an appropriate scale for **drawing**.
  - (3) Dimensioning and labelling should be done in all drawings.
  - (4) Assume any missing **data**.
  - (5) Stationary supplied – 02 cartridge sheets only. Attempt your answer accordingly.
  - (6) Be precise in your answers.

1. Design a prestressed concrete floor structure to span a space of size 48.0 m x 96.0 m x 9.0 m at intermediate floor. Explain your scheme with the help of relevant plans, sections, elevations and isometric of any two fixing / joinery details **20**
2. Explain the advantages of North Light Truss and lattice girder system of construction. Draw in detail the joints at the ridge and gutter showing the roofing arrangement. **20**

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3. Explain the advantages of precast concrete floor systems over cast in situ reinforced concrete floor systems. Illustrate any two types of cast in situ reinforced concrete floor system for long span structures. **10**
  4. Identify different types of prefabrication systems. Describe the various non-load bearing members of a building that can be prefabricated. **10**
  5. Write short notes on any **two** of the following : **10**
    - (a) Advantages of prestressing
    - (b) Requirements of an ideal structural joint in prefabrication
    - (c) Steel portal frame.
  6. Write short notes on any **two** of the following : **10**
    - (a) Service Core
    - (b) Precasting methods in precast concrete structures
    - (c) Single T-slab.
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