

Printed Pages : 2



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

**PAPER ID : 181802**

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### **B. Arch.**

(SEM. VIII) THEORY EXAMINATION, 2014-15  
**CONSTRUCTION & MATERIALS - VIII**

Time : 3 Hours]

[Total Marks : 50

**Notes :**

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 answers accordingly.

- 1 Design a Prestressed concrete roof structure to span a Multipurpose hall of size 40.0 m. X 60.0 m. Explain your scheme with the help of relevant plans, sections, elevations and isometric of any two fixing / joinery details.

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[ Contd...

- 2 Differentiate between steel Portal frame construction and Prestressed concrete construction. Explain in detail the types of connections in portal frames. **10**
- 3 Explain types of prefabrication systems used for public buildings. Illustrate the various members of a School building which can be prefabricated. **10**
- 4 Differentiate between pre-cast and cast in situ reinforced concrete floor systems. Illustrate any one type of cast in situ reinforced concrete floor system for long span structures. **10**
- 5 Write short notes on any two of the following: **10**
- (a) Role of Passive reinforcement in prestressed concrete
  - (b) Need of Modular Coordination in prefabrication
  - (c) North light truss and lattice girder roofs
- 6 Write short notes on any two of the following: **10**
- (a) Cross wall construction
  - (b) Precast concrete slab - slab connection
  - (c) Double 'T' slabs.
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