

B.Arch. Sixth Semester (Architecture Engineering) (CGS)
10048 : Building Materials & Construction - VI : Paper - 06 AR 02

P. Pages : 2

Time : Four Hours



AU - 2830

Max. Marks : 80

- Notes :
1. All question carry equal marks.
 2. Answer **four** questions.
 3. Question No. **1** is compulsory.
 4. Due credit will be given to neatness and adequate dimensions.
 5. Illustrate your answer necessary with the help of neat sketches.
 6. Use of pen Blue/Black ink/refill only for writing the answer book.

1. Design and draw a structural steel truss roofing system for a warehouse of size 15m in width and 45m in length Draw the following to a suitable scale of. 20
 - a) Plan showing position of stanchions and trusses.
 - b) Detailed sectional elevation of a truss.
 - c) Fixing details of roof covering materials.
 - d) Fixing details of stanchion and truss.
2. a) What is patent Glazing where it is used Describe with neat sketches the various type's of patent glazing? 20
- b) What do you know about pre-cast and cast-in-situ building elements state it's advantages and disadvantages? 20

OR

3. a) Explain with neat sketches the various types of mild steel trusses for different spans? 20
- b) What are the different type's of pile's used for deep foundation explain any three of them in detailed?
4. Design and Draw to a suitable scale a North-Light truss for a factory building having size 30M×120M . Draw the following details :- 20
 - i) Key plan, key elevation
 - ii) Sectional elevation of North Light with Lattice Girder
 - iii) Details of Gutter fixing and Ridge level details.

OR

5. a) What is shoring? Why it is provided explain with neat sketch the detail working of dead shore? 20

- b) Elaborate the term "under pinning" and it's types with the help of example and sketches?
6. a) What type of foundation would you propose for multistoried building in a very soft soil? Explain in detail. 20
- b) What are the advantages and disadvantages of using prefressed concrete?

OR

7. Describe with neat sketches **any three** of the following. 20
- i) Various types of Rolled steel section as a structural component for steel construction.
 - ii) Distinguish between flying of Racking share.
 - iii) Steel monitor roof.
 - iv) Type's of pile cap's.
 - v) Appropriate use of pre-caste building elements.
 - vi) Under-reamed pile foundation.
