S.No. : 322

AR 802

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

PAPER ID : 00136 Roll No.

B. Arch. Examination 2021-22

(Even Semester)

CONSTRUCTION AND MATERIALS - VIII

Time : Three Hours] *[Maximum Marks : 50*

Note :– (i) Attempt any four questions.

(ii) Question No. 1 is compulsory.

(iii) Assume any missing data.

1. Design a pre-stressed concrete floor structure to span a space of size 35.0 m × 70 m × 6.0 m at intermediate floor. Explain your scheme with help of relevant plans, sections, details and views. 20

2. Differentiate between pre-cast and cast in site reinforced concrete floor systems. Illustrate any one type of cat in situ reinforced concrete floor system for long span structures. 10

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3. Write short notes on any two of the following : 10

   (a) Advantages of pre-stressing

   (b) Steel portal frame

   (c) Waffle grid slab

   (d) Open prefab system

4. What are different types of prefabrication systems? Describe 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) Service core

   (b) Single T-slabs

   (c) Lattice girder

   (d) Box frame construction

6. Explain the advantages of North light truss and lattice grid system of cosntruction. Draw in detail the joints at the ridge and gutter showing the roofing arrangement. 10

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