

## T64/A01123/EE/20160713

**Time : 3 Hours**

**Marks : 80**

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**Instruction :**

1. All Questions are Compulsory.
  2. Each Sub-question carry 5 marks.
  3. Each Sub-question should be answered between 75 to 100 words. Write every questions answer on separate page.
  4. Question paper of 80 Marks, it will be converted in to your programme structure marks.
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1. Solve any **four** sub-questions.
  - a) Discuss the term “Large span structures”. 5
  - b) Write a note on Hyperbolic paraboloids. 5
  - c) Explain the importance of light weight steel design strategies, in designing and conceptualizing large span structures in terms of their services and economics. 5
  - d) Explain any two large span structures with reference to services and structural systems. 5
  - e) Write short note on economics and maintenance of large span structures. 5
2. Solve any **four** sub-questions.
  - a) Give examples of the tube in tube construction and the hanger suspension system in high rise building. 5
  - b) Discuss giving examples the various structural systems in concrete for high rise buildings. 5
  - c) Discuss the advantages and disadvantages of tall buildings in reference to psychology of the user. 5
  - d) Explain in brief on gravity and lateral loads in high rise structure. 5
  - e) Write a note on bracing used in multistoried buildings. 5
3. Solve any **four** sub-questions.
  - a) Explain Prefabrication in brief. 5
  - b) Write short notes on the advantages and disadvantages of prefabricated construction. 5
  - c) Discuss “Reduce, recycle and reuse” with respect to any one group housing project in India. 5
  - d) Write a note on “understanding of modular co-ordination in prefab design”. 5
  - e) Discuss the benefits of the use of a prestressing system over RCC in a high rise structure. 5

4. Solve any **four** sub-questions.
- a) Write a note on planning and design module. 5
  - b) Discuss with diagrams and example the advantages and disadvantages of modular co-ordination with reference to the planning and design module. 5
  - c) Discuss the methods of designing the water supply systems in tall buildings. 5
  - d) Write about the use of refuge floor in multi storied building. 5
  - e) Explain ventilation in reference to tall buildings. 5

