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Question Paper Code : 31193

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2013.

Seventh/Eighth Semester

Civil Engineering

CE 2045/CE 805/CE 1007/080100060 — PREFABRICATED STRUCTURES

(Regulation 2008)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is meant by Modular Coordination?
2. State any two principles of prefabricated structures.
3. Define a shear wall.
4. What are the loads acting on wall panels?
5. What is joint flexibility?
6. Explain disuniting of structures.
7. State post tensioned connection.
8. Give any four types of joints.
9. Define progressive collapse.
10. Explain equivalent design loads.

PART B — (5 × 16 = 80 marks)

11. (a) What are the principles of prefabrication techniques and explain in detail and also mention its advantages and disadvantages.

Or

- (b) Explain the erection principles of precast members with suitable sketches.

12. (a) Explain the behaviour of large panel construction with suitable sketches.

Or

(b) Explain the behaviour of roof and floor slabs construction with suitable sketches.

13. (a) Design principles of disuniting of structures and explain in detail.

Or

(b) What is joint flexibility and allowance for joint deformation? Explain problems in design.

14. (a) What are the requirements of ideal structural joints? Explain different joints of structures.

Or

(b) Explain the joint techniques and material used in detail and explain the design of expansion joint.

15. (a) Explain the equivalent design loads for considering abnormal effects.

Or

(b) Explain the codal provisions for progressive collapse and detail the importance of avoidance of progressive collapse.