Reg. No. : | | | | | | | | | | | | |

Question Paper Code : 60237

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2016.

Eighth Semester

Civil Engineering

CE 2045/CE 805/CE 1007/080100060/10111 CEE 44 — PREFABRICATED STRUCTURES

(Regulations 2008/2010)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Give the different types of modular grids.

2. List out the limitations of modular coordination in precast elements.

3. Name a few prefabricated components.

4. Define a shear wall.

5. Define disuniting of structures for prefabrication.

6. List the factors governing joint deformations.

7. State post tensioned connection.

8. Give any four types of joints.

9. Define progressive collapse.

10. Briefly explain equivalent design loads.

PART B — (5 × 16 = 80 marks)

11. (a) Explain the merits and demerits of prefabrication systems.

Or

(b) Explain the two types of prefabrication systems in detail.

12. (a) With a flow chart explain the manufacturing process of roof and floor slabs.

Or

(b) Describe the manufacturing process of wall panels.

13. (a) Explain principles of disuniting of structures in detail.

Or

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

14. (a) Explain with the aid of neat sketches, any two different structural connection. (16)

Or

(b) (i) Enumerate detailing of structural connections. (8)

(ii) How expansion joints are designed? (8)

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.

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