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

Question Paper Code : 50235

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2017
Eighth Semester
Civil Engineering
CE 6016 – PREFABRICATED STRUCTURES
(Regulations 2013)

Time : Three Hours | Maximum : 100 Marks

Answer ALL questions.

PART – A **(10×2=20 Marks)**

1. What is 'Module' in Modular coordination ?
2. List out the different techniques involved in the production of prefabricated components.
3. Compare the benefits of shear wall over the conventional load bearing brick masonry wall.
4. How the large panel system of construction is classified ?
5. For a precast structure, is joint flexibility needed. Justify your answer.
6. Write a short note on Disuniting of structures.
7. How will you connect a precast column with precast foundation ?
8. Differentiate between rigid joint and hinged joint in prefabricated construction.
9. Define-abnormal loads.
10. Distinguish between intensity and magnitude of earthquake.

PART – B (5×16=80 Marks)

11. a) i) Discuss the need for prefabrication in construction industry. (8)

ii) Explain the principles involved in prefabrication and state its limitations. (8)

(OR)

b) Discuss the important aspects to be taken for consideration while during production, tansportation and erection of precast elements. (16)

12. a) Explain in detail about the large panel construction and state its merits and demerits. (16)

(OR)

b) Discuss the various factors which influence the response of precast structural components. (16)

13. a) Illustrate the design of cross section based on efficiency of the materials. (16)

(OR)

b) i) Explain the disuniting of structures. (12)

ii) What are the precautions should be taken during disuniting of structures ? (4)

14. a) Describe briefly the ductility of joint and give the recommendations to design a ductile joint in precast structures. (16)

(OR)

b) i) List out the general recommendations for the design of an expansion joint. (12)

ii) State the advantages and applications of an expansion joint. (4)

15. a) Discuss the codal provisions to calculate the equivalent design load when it is subjected to earthquake loading. (16)

(OR)

b) Briefly explain about the different types of progressive collapses which occurs in the multistorey building with neat sketches. (16)