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Question Paper Code : 70348

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2023.

Fourth Semester

Civil Engineering

CE 8401 — CONSTRUCTION TECHNIQUES AND PRACTICES

(Regulations 2017)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. List the features of energy efficient building.
2. Distinguish load bearing structure and framed structure.
3. Define Specifications, for construction practices.
4. Explain the significance of acoustics in buildings.
5. Define grouting.
6. List the situations under which pile foundation is recommended.
7. Define articulated structures.
8. Explain the concept behind Cable stayed bridge.
9. List out various types of vibrators used in the compaction process.
10. Illustrate the factors which influence the selection of equipment.

PART B — (5 × 13 = 65 marks)

11. (a) Explain the procedure for determining the seismic force of a building.

Or

- (b) Explain about Building Automation Systems.

12. (a) Examine Building Foundations in detail.

Or

(b) Categorize the fabrication and erection of steel trusses and frames.

13. (a) Explain the different types of cofferdams with neat sketches.

Or

(b) Describe step by step procedure for pipe jacking.

14. (a) Explain the construction techniques for bridge decks with flowchart.

Or

(b) Demonstrate the procedure for erecting light weight components on tall buildings.

15. (a) Examine various types of earthwork equipment. Describe in detail about any two earthwork equipment.

Or

(b) Explain the various equipments used for concreting operation.

PART C — (1 × 15 = 15 marks)

16. (a) Assess and Infer the role of materials and methods to achieve green building concepts.

Or

(b) Explain the various equipment used for pile driving.
