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Question Paper Code : 27130

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2015.

Fifth Semester

Civil Engineering

CE 6506 — CONSTRUCTION TECHNIQUES, EQUIPMENT AND PRACTICE

(Regulations 2013)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Define hydration of cement.
2. What is meant by RMC?
3. State the purposes of providing DPC in buildings.
4. What are Slipforms?
5. Define a caisson. What are its types?
6. What is a sheet pile?
7. Mention the reasons for using special forms for shells.
8. What are the precautions to be taken while erecting light weight components on tall structures?
9. Differentiate between single acting and double acting hammer.
10. Define dredging.

PART B — (5 × 16 = 80 marks)

11. (a) What are the factors to be considered for mix design? Explain the step by step procedure for IS method of concrete mix design.

Or

- (b) What is meant by NDT? Explain any two NDT methods in detail.

12. (a) With neat sketches explain the different types of stone masonry in detail.

Or

- (b) Describe in detail the construction practices to be followed for acoustics and fire protection.

13. (a) Explain the procedure involved in underwater construction of diaphragm walls and basement.

Or

- (b) Explain the process of dewatering with a neat sketch. Also write the uses of standby equipment for underground open excavation.

14. (a) What are the advantages of using belt conveyors for transporting materials? Describe the construction of a typical belt conveyor installation.

Or

- (b) Explain the procedure involved in the erection of braced domes and space decks.

15. (a) Write in detail about the various factors to be considered in the selection of equipment for earthwork.

Or

- (b) What is meant by tunnelling? Explain the features of the equipment used for tunnelling operation.