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Question Paper Code : 52774

B.E./B.Tech. DEGREE EXAMINATIONS, APRIL/MAY 2019.

Fifth Semester

Civil Engineering

CE 6506 — CONSTRUCTION TECHNIQUES, EQUIPMENT AND PRACTICE

(Regulations 2013)

(Common to PTCE 6506 — Construction Techniques, Equipment and practice for
B.E. Part-Time — Fourth Semester — Civil Engineering — Regulation 2014)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What does 33 grade cement refer to?
2. List any two durability properties of hardened concrete.
3. Define damp proof course. What are its causes of dampness?
4. What is the purpose of providing construction joints?
5. List out the various methods tunnelling in soft soil.
6. Write any two functions of sheet piles.
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. Name the equipments used for earth moving operations.
10. What is meant by dredging?

PART B — (5 × 13 = 65 marks)

11. (a) Briefly discuss about the manufacturing process of concrete.
Or
(b) Discuss in detail about the testing on fresh concrete with neat sketch.
12. (a) Describe the different types of bonds in brick masonry with sketches.
Or
(b) What is scaffolding? Mention its various components and types.
13. (a) Explain the various types of sheet piles.
Or
(b) Explain in detail about tunneling techniques.
14. (a) Explain the construction techniques for bridge decks.
Or
(b) With a flow diagram explain the erection of articulated towers.
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.

PART C — (1 × 15 = 15 marks)

16. (a) What is coffer dam? With the help of sketches explain various types of coffer dam.
Or
(b) In which situation pile foundation is adopted? Explain various types of pile foundation with neat sketch.