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Question Paper Code : X85352

M.E./M.Tech. DEGREE EXAMINATIONS – NOV / DEC 2020

Second Semester

M.E. Construction Engineering and Management

CN5201 ADVANCED CONSTRUCTION TECHNIQUES

(Regulation 2017)

Time: 3 Hours

Answer ALL Questions

Max. Marks: 100

PART- A (10 x 2 = 20 Marks)

1. What is the purpose of using sheet piles?
2. What are the dewatering techniques used in underground open excavation?
3. Name the different tunneling techniques.
4. What is the purpose of using slip form technique in construction?
5. What is the difference between a Bow-string bridge and Cable stayed bridge?
6. When are temporary propping provided?
7. How will you strength floor and shallow profile?
8. What is mud jacking?
9. What are disadvantages of demolition using explosives?
10. What are the safety precautions used in demolition and dismantling?

PART- B (5 x 13 = 65 Marks)

11. a) Explain in detail the different Piling techniques. (13)

OR

- b) Explain the construction sequence of box jacking process with neat sketches (13)
12. a) Explain in detail the erection techniques of tall structures. (13)

OR

- b) How are the in-situ prestressing done in high rise structure? (13)
13. a) Explain in detail the construction sequence and methods in the construction of jetties and break water structures. (13)

OR

- b) Explain in detail the erection sequence of articulated structures and space decks. (13)
14. a) Explain in detail the protection methods for foundation. (13)

OR

- b) Explain in detail the soil stabilization techniques. (13)
15. a) Explain in detail the different demolition techniques (13)

OR

- b) Explain in detail the techniques used for dismantling (13)

PART- C (1 x 15 = 15 Marks)

16. a) Suppose you want to construct a large reservoir, explain with neat sketches the construction sequence and the techniques used for dewatering and concreting. (15)

OR

- b) What are the construction techniques and sequences involved in the construction of superstructure of tall buildings? (15)
