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Name.....

Reg. No.....

**EIGHTH SEMESTER B.TECH. (ENGINEERING) DEGREE
[2014 SCHEME] EXAMINATION, APRIL 2018**

Civil Engineering

CE 14 803—CONSTRUCTION ENGINEERING AND MANAGEMENT

Time : Three Hours

Maximum : 100 Marks

Part A

*Answer any eight questions.
Each question carries 5 marks.*

1. What are the steps involved in planning of construction projects ?
2. State the merits and demerits of bar charts.
3. What is meant by coding system ? Specify the significance of coding system.
4. Explain about any one earthwork excavation equipment.
5. Mention the important roles of arbitrator.
6. Outline about any two types of contract.
7. Compare earnest money deposit and security deposit.
8. Indicate the various parameters used in tender notice with example.
9. What is meant by ABC analysis ? Give an example for ABC analysis.
10. Specify the importance of professional ethics in resource handling.

(8 × 5 = 40 marks)

Part B

*Answer all questions.
Each question carries 15 marks.*

11. A small project consists of facilities. The time estimates (in weeks) and difference activities are given below :

Activity	1-2	1-3	1-4	2-5	3-5	4-6	5-6
t_o	1	1	2	1	2	2	3
t_m	1	4	2	1	5	5	6
t_p	7	7	8	1	14	8	15

- (i) Find a critical path.
- (ii) What is the expected project length ?

Turn over

(iii) Estimate earliest and latest event time.

(iv) Calculate slack for all events.

Or

12. (a) Illustrate the work breakdown structure with suitable example. (8 marks)

(b) Describe the similarities, common features and difference between CPM and PERT.

(7 marks)

13. Name the various types of disputes arrived in construction field. Describe the modes of settlement of disputes.

Or

14. Classify the various types of cranes used in construction projects. Explain the suitability and operating procedure of cranes.

15. State the principle of quality control and also explain the needs and standards to be followed in assessing quality.

Or

16. Enumerate the various cost used for construction project and estimate the cost for any one resource used in construction work.

17. Describe the concepts and sequences followed in Project Management Information System.

Or

18. Discuss the functions of safety department and explain the safety measures to be adopted in construction site.

[4 × 15 = 60 marks]