

**B.Tech. Civil (Construction Management) /
B.Tech. Civil (Water Resources Engineering)**

Term-End Examination

00515

December, 2014

ET-524(B) : CONSTRUCTION MANAGEMENT - I

Time : 3 hours

Maximum Marks : 70

Note : Attempt any *five* questions. All questions carry equal marks.

1. (a) What do you understand by the term "Site organisation" ? Discuss briefly the essential components involved in the process of site organisation. 3+4=7

- (b) What do you understand by overhead costs ? What all is included in "Direct overhead costs" and "Indirect overhead costs" ? 3+2+2=7

2. Explain, with examples, the steps involved in five major techniques of construction cost. 14

3. (a) What are the various phases involved in a project management ? Explain each of them. 7
- (b) What are the limitations of a bar chart ? Differentiate between PERT and CPM. In what type of projects is each useful ? 7
4. Describe the following earth moving equipments and their major functions : $4 \times 3 \frac{1}{2} = 14$
- (a) Bulldozer and Angle-dozer
- (b) Motor Grader
- (c) Scraper
- (d) Compacting plant
5. (a) What are the essential features of a contract agreement ? 7
- (b) Differentiate between Lumpsum and Item Rate contracts. Discuss their advantages and disadvantages. 7
6. (a) Explain the term 'budgeted cost analysis'. With the help of a neat diagram and standard parameters, explain the cost variance index and the schedule variance index. How do you interpret them ? 7
- (b) Explain the term 'Time-cost trade-off' with suitable examples. 7

7. Write short notes on any **four** of the following :

$$4 \times 3 \frac{1}{2} = 14$$

- (a) Project Control Methodology
 - (b) Construction Claims
 - (c) Arbitration vs Litigation
 - (d) Liquidated Damages
 - (e) Discounted Cash Flow Methods
-