

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

00818

Term-End Examination

June, 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) List seven important safety measures to be adopted while using earth moving plant. 7
- (b) What precautions will you take in the storage of cement and structural and reinforcing steel ? List them separately. 7
2. (a) Discuss the essential features of a construction contract agreement. 7
- (b) Differentiate the lumpsum and item rate contract. Also give an example of each. 7

3. The project related information is given below : 14

Task	Time (weeks)
1 – 2	2
2 – 3	7
2 – 4	3
3 – 4	3
3 – 5	5
4 – 6	3
5 – 8	5
6 – 7	8
7 – 9	4
8 – 9	1
6 – 10	4
9 – 10	7

- (a) Draw the network diagram.
- (b) Identify the critical path.
- (c) Calculate the project completion time.
- (d) Calculate the total float of all activities.
4. Define and explain the following : 4+5+5
- (a) Depreciation
- (b) Causes of depreciations
- (c) Various methods of charging depreciations

5. (a) Explain the NPV method of appraising a project. 6
- (b) Explain the term budgeted cost analysis. With the help of a neat diagram, explain ACWP, BCWP, SCWP, CVI and SVI. How do you interpret them? 8
6. Write short notes on any *four* of the following :
- $4 \times 3 \frac{1}{2} = 14$
- (a) Rate analysis
- (b) Productivity and quality of construction sites
- (c) ABC analysis
- (d) Work Breakdown structure
- (e) BOT Contracts
- (f) Surface drainage for site organisation
7. (a) Explain the term Time-Cost trade-off with suitable examples. 7
- (b) Discuss the importance of planning, scheduling and controlling projects. 7
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