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

Term-End Examination

June, 2015

00981

ET-524(B) : CONSTRUCTION MANAGEMENT – I

Time : 3 hours *Maximum Marks : 70*

Note : *Attempt any **five** questions. All questions carry equal marks. Use of scientific calculator is permitted.*

1. (a) Prepare the preliminary estimate of a Hospital Building with a total plinth area of building 1800 sqm having the following given details :

    (i) Plinth area rate = ₹ 1200/- per sqm.

    (ii) Extra for special architectural treatment = 2% of building cost.

    (iii) Extra for utility services = 5% of building cost.

    (iv) Extra for internal installations = 20% of building cost.

(v)   Extra for services = 6% of building cost.

(vi)   Contingencies = 3%

(vii)   Supervision charges = 8%

(b)   Explain the causes of depreciation.   *9+5=14*

2.   Draw the symbols for any *seven* of the following :   *7×2=14*

(a)   Rain Water Outlet

(b)   Earthing

(c)   Alarm

(d)   Rolling Door

(e)   Single Swing Door

(f)   Folding Door

(g)   Water Meter

(h)   Revolving Door

3.   Explain the Line of Balance technique for scheduling repetitive work, with examples and neat diagram.   *6+4+4=14*

4. The duration and predecessors of activities for a project are as given below :

Activity	Predecessors	Duration
A	–	8
B	–	4
C	–	10
D	A, B	5
E	C, D	7
F	C, D	9
G	E, F	3
H	G	7

(a) Draw the network showing EOT and LOT of all events.

(b) Give critical path and duration of the project. *9+5=14*

5. Explain any two methods of charging Depreciation. Which method is most suitable for a construction project ? *5+5+4=14*

6. (a) Explain commonly used Budget Monitoring Parameters.

(b) What do you understand by work breakdown technique ? Explain the broad classification levels and significance of work breakdown structures. *7+7=14*

7. Write short notes on the following : $\qquad 4 \times 3\frac{1}{2} = 14$

    (a) Cost Variance

    (b) Salvage Value

    (c) Productivity Performance Index

    (d) Cost Time Trade-off

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