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

Term-End Examination

June, 2012

ET-524(B) : CONSTRUCTION MANAGEMENT-I

Time : 3 Hours   *Maximum Marks : 70*

Note :   *Question No.1 is* **compulsory.** *Attempt* **any four** *questions from the remaining. Use of calculator is* **permitted.** *Missing data can be suitable assumed. Brief and to the point answer in your own language will be accredited.*

1.   (a)   Henry Gantt developed Bar charts for planning and scheduling the project in : **7x2=14**

       (i)   1880

       (ii)   1980

       (iii)   1920

       (iv)   1940

       (v)   1950

   (b)   A milestone chart :

       (i)   Shows the interdependencies of various jobs.

       (ii)   depicts the delay of jobs if any

       (iii)   Points outgoing ahead of schedule of jobs if any

       (iv)   None of the above.

(c) Pick up the correct statement from the following :

 (i) Programme evaluation and review techniques is event oriented.

 (ii) Programme evaluation and review technique is not event oriented.

 (iii) Critical path method is event oriented.

 (iv) Critical path method is not activity oriented.

(d) An event is indicated on the network by number enclosed in :

 (i) a circle (ii) a square

 (iii) a triangle (iv) an ellipse

 (v) All the above

(e) A dummy activity :

 (i) is artificially introduced

 (ii) is represented by a dotted line

 (iii) Does not consume time

 (iv) All the above

(f) The critical activity has :

 (i) maximum float

 (ii) minimum float

 (iii) zero float

 (iv) none of these

(g) Critical path moves along the activities having total float :

 (i) Positive (ii) Negative

 (iii) Zero (iv) same

2. (a) Write down the difference between CPM and PERT Network.   7

   (b) Write down in details regarding critical path method.   7

3. (a) Define clearly EST, EFT, LST and LFT with total float.   7

   (b) Define clearly Free Float Independent float Interfearing float.   7

4. (a) What do you understand by optimistic time, pessimistic time, and most likely time estimate ?   7

   (b) What do you understand by expected time, define clearly with the formula with earliest expected time and latest allowable time ?   7

5. (a) What do you mean by slack ? Define clearly variance and standard deviation.   7

   (b) Write down the steps used for calculating of time cost optimization.   7

6. (a) Define clearly the project cost ? Explain various types of project costs.   7

   (b) What is meant by Direct cost and Indirect cost in construction project ?   7

7. (a) Define slope of direct cost curve clearly.   7

   (b) What is meant by updating ? Write briefly note on updating of construction project.   7