(Following Paper ID and Roll No. to be filled in your Answer Books)

Paper ID : 197602

Roll No.

B.TECH.

Theory Examination (Semester-VI) 2015-16

ESTIMATION AND PROJECT MANAGEMENT

Time: 3 Hours Max. Marks: 100

Section-A

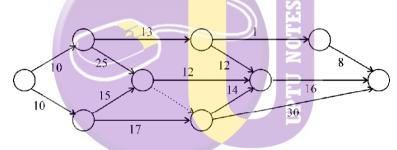
- 1. Attempt all parts of the following.
- $(2 \times 10 = 20)$
- (a) Explain individual wall method of Estimating.
- (b) Define depreciation.
- (c) What are the advantages of Milestone chart over Bar chart?
- (d) Differentiate between AOA and AON.
- (e) What do you understand by Break even point?
- (f) Differentiate between CPM and PERT Network Analysis.

- (g) What do you understand by resources allocation?
- (h) Explain contract negotiation.
- (i) Discuss different types of Estimate in short.
- (j) Define Time Value of money.

Section-B

2. Attempt any five parts of the following. $(10 \times 5 = 50)$

(a) Find the critical path of the given network.



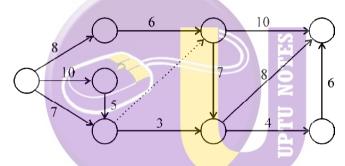
(b) For a building, the carpet area is 700 sq.m, the horizontal circulation area is 15% of Plinth area and the area of walls is 12% of Plinth area. Consider plinth area rate as Rs 1000/- per sq.m. The cost of water supply, the cost of sanitation and the cost of Electrification are 5%, 6% and 10% of the cost of the building, respectively. Find out the total cost of the project.

- (c) Define a tender. Write down the particulars required for the notice of a tender. Give a typical tender notice inviting tenders.
- (d) Write short notes on the following:
 - (i) Network technique
 - (ii) Equivalent annual cost method
 - (iii) Obsolescence
- (e) What is a contract and why is it important? Classify the contracts on the basis of their merits and demerits. Write down the steps taken in care of breach of of contract.
- (f) What do you understand by the Project Cycle? Explain all the phases of Project Cycle.
- (g) What is a 'work charged establishment'? Discuss its importance with respect to regular Establishment. Work out analysis of rates for R.C.C. (1:2:4).
- (h) What is engineering economics? What are the principles of engineering economics? Differentiate between depreciation and obsolescence.

Section-C

Note: Attempt any two parts of the following. $(15\times2=30)$

- 3. For the given situation of CPM network, determine
 - (i) All activity times
 - (ii) All float times
 - (iii) Critical path & project duration



- 4. The initial cost of an equipment is Rs 1100, salvage value is Rs 100. Life of equipment is 5 years. The rate of interest for sinking fund is 8%. Calculate the yearly depreciation and book value at the end of each year by 5 methods. Present the value in tabular form.
- 5. Explain briefly the various legal aspects of contraction. What criteria must be fulfilled for a contract to be legally valid?