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BTECH
(SEM V) THEORY EXAMINATION 2018-19
QUANTITY ESTIMATION AND MANAGEMENT

Time: 3 Hours *Total Marks: 100*
Notes: *Assume any Missing Data.*

SECTION A

1. Attempt all questions in brief: **2X7=14**

a. What is the use of a dummy in a network?
b. What do you mean by cash flow diagram?
c. Define interest rate. How interest rate can be classified?
d. What is centre line method?
e. What is Arbitration?
f. What are the characteristics of a good programme?
g. Define contract.

SECTION B

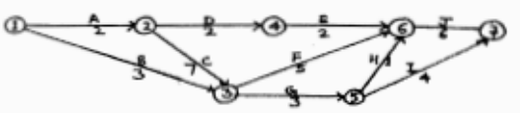
2. Attempt any three of the following: **7X 3=21**

a. What are the limitations of PERT network?
b. Discuss the concept of time value of money?
c. Enumerate the factors which affect the output of a dragline.
d. Define salvage value, scrap value and book value.
e. Discuss the time cost analysis.

SECTION C

3. Attempt any one part of the following: **7x1=7**

a. Find the critical path ad project duration of the given CPM project. Also calculate EST, EFT, LST, LFT and all the floats in a tabular form.



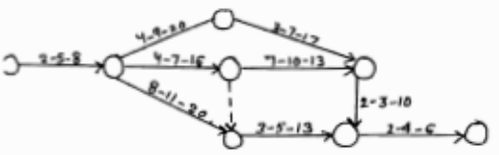
b. For the given PERT network, determine:
   I. Expected time, standard deviation and variance of the project and show the critical path also.
   II. Probability of completion of project in 35days.

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III. Time duration that will provide 90% probability (z is 1.32) of its completion in time.(If z is 1, P is 84.13%), (if z is 0.9, P is 81.59%), (if z is 1.1, P is 86.43%)



4. Attempt any one part of the following: 7x1=7

a. Write short notes on: clamshell, Hoe, scraper and bulldozer.
b. Explain in detail factors affecting the economic life of an equipment.

5. Attempt any one part of the following: 7x1=7

a. Alpha Industry is planning to expand its production. It has identified three different technologies for meeting the goal. The initial outlay and annual revenue with respect to each of the technologies are summarized in tale. Suggest the best technology which is to e implemented on the present worth method of comparison assuming 20%I.R. , compounded annually.

Technology	Initial outlay (Rs.)	Annual Revenue (Rs.)	Life (years)
Technology 1	12,00,000	4,00,000	10
Technology 2	20,00,000	6,00,000	10
Technology 3	18,00,000	5,00,000	10

b. What is depreciation? Also discuss the methods to calculate the depreciation.

6. Attempt any one part of the following: 7x1=7

a. Write short notes on: Tender, Earnest money deposit and Commissioning of project.
b. What are the elements of tender preparation?

7. Attempt any one part of the following: 7x1=7

a. Discuss the methods of estimating.

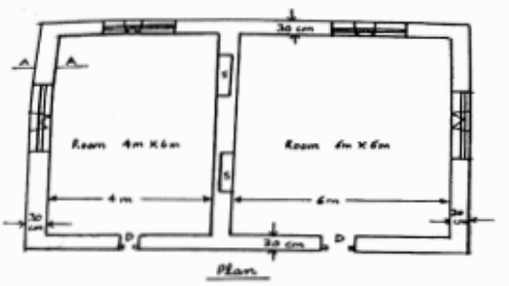
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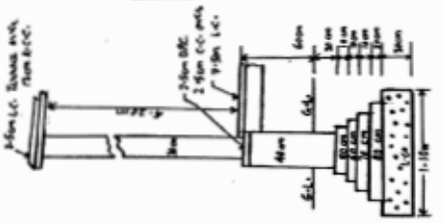
b. stimate the quantities of the following items of a two roomed building from the given plan and section:

i. Earthwork in excavation in foundation
ii. Lime concrete in foundation
iii. 1st class brickwork in cement mortar 1:6 in foundation and plinth
iv. 2.5cm c.c. D.P.C.
v. 1st class brickwork in lime mortar in superstructure.

All walls are of same section, lintels over doors, windows and shelves are 15 cm thick.
Doors D- 1.20 m X 2.10 m
Windows W 1.00 m X 1.50 m
Shelves S 1.00 m X 1.50 m



Plan



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