

Roll No.

Total No. of Pages : 03

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B.Tech. (Civil Engineering) (Sem.-6)
CONSTRUCTION COST ANALYSIS

Subject Code : PECE-604D-18

M.Code : 79409

Date of Examination : 09-07-22

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

1. Write briefly :

- a) What do you mean by '*Budgeted cost for work scheduled*'?
- b) What are the limitations of benefit cost ratio analysis?
- c) What are the assumptions while performing breakeven analysis?
- d) What is utilization of time value of money?
- e) When is declining balance method called double declining balance method?
- f) Define depreciation.
- g) What are the objectives of capital budgeting?
- h) Why is cost code important?
- i) How can debentures be secured?
- j) What are shares?

SECTION-B

2. The cost of improving an existing road 30km long is Rs. 20,00,000 per km spread equally over 3 years. The improvement consists of strengthening the existing pavement. The present traffic consists of:

Commercial vehicles per day = 2000

Cars per day = 1500

Two wheelers per day = 1200

Total vehicles per day = 4700

The cost of operation on the existing road and improved road is as under

	Cost of operation (Rs/km)	
	Existing Road	Improved Road
a) Commercial vehicles	5.00	4.00
b) Car	3.00	2.50
c) Two wheeler	0.60	0.50

The accident rate on the existing road and improved road is as under :

Existing road : 1.5 per mil veh km

Improved Road : 1.0 per mil veh km

The cost of one accident is Rs. 100000

The rate of growth of traffic 10 % per annum

The annual maintenance costs per km are Rs. 30000 and Rs. 40000 per km on the old and new surface respectively. The analysis period is 10 years after opening the road to traffic. The discount rate is 12 %. Carry out the economic analysis using B/C Ratio method.

3. What are the steps involved in implementation of earned value method?
4. A building costing Rs. 1600000 is expected to have a 35 years life with 25% salvage value. Calculate the depreciation charge for years 4,9,18 and 26 using straight line method.

5. Enumerate various steps involved in capital budgeting.
6. How will you use cash flow diagram to determine
 - a) Capital lock-up?
 - b) The cash requirement of a project?

SECTION-C

7. What are the details required to draw a project cash flow diagram? What are the factors affecting project cash flow?
8. Discuss the significance of social benefit-cost analysis in detail.
9. How is inflation classified? What are the effects of inflation?

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.