

Total No. of Questions : 8]

SEAT No. :

PD4051

[Total No. of Pages : 2

[6402]-10

S.E. (Civil)

PROJECT MANAGEMENT

(2019 Pattern) (Semester - IV) (201012)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) Attempt Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right indicate full marks.
- 4) Assume suitable data, if necessary.

- Q1) a)** Yearly requirement of cement by large firm is 300 bags. The cost of a bag is Rs. 300/-. Lead time is one month and ordering cost per order is Rs. 200/-. Assume annual carrying cost for inventory is 20% of average inventory management. Find EOQ and total inventory cost. [6]
- b) Explain the merits and demerits of ERP system. [5]
- c) Define inventory and list out its types. Explain any method of inventory control. [6]

OR

- Q2) a)** Segregate the items as per their annual usage and plot ABC Curve. [6]

Sr. No.	Item	Annual Usage in Rs.
1	Cement	1,50,000
2	Sand	80,000
3	Wash basin	44,000
4	Steel	1,15,000
5	Aggregate	90,000
6	Paint	50,000

- b) What are the functions of Materials Manager? [5]
- c) What are the points to be considered while preparing safety programme of construction site. [6]
- Q3) a)** What do you understand by resource smoothing and resource levelling? Explain their significance. [5]
- b) What do you mean by updating the network? Write steps to update the network. [6]
- c) Explain the use of Project Management software in construction industry. [6]

OR

P.T.O.

- Q4)** a) What do you mean by EVA? Explain any one in detail. [5]
 b) What is project monitoring? State its advantages. [4]
 c) Following table shows the cost duration data for a small construction project. Carry out step by step crashing and how much you save by crashing the network. Indirect cost is Rs. 300/week. [8]

Activity		1-2	2-3	2-4	3-5	4-5	5-6
Normal	Cost	4000	2000	5500	200	2200	4000
	Duration (weeks)	3	4	5	7	4	8
Crash	Cost	4200	4800	6400	1200	2600	4200
	Duration (weeks)	1	2	2	3	2	4

- Q5)** a) Explain importance of project economics in construction industry. [6]
 b) Explain difference between cost and value with suitable examples. [6]
 c) Define annuities. What are the kinds of annuities. [6]

OR

- Q6)** a) What are the types of elasticities? Explain in brief. [6]
 b) Explain Law of Demand and Supply with proper Sketch. [6]
 c) Explain law of substitution with the help of a neat sketch. [6]

- Q7)** a) What are the different types of appraisals required to undertake any project? Explain any one in detail. [6]
 b) Explain in detail role of project Management Consultant in Civil Engineering field. [8]
 c) Write a short note on payback period. [4]

OR

- Q8)** a) "Technical and economical appraisals are a must to check project profitability". Comment. [4]
 b) Following data pertains to 2 projects. Rank the projects based on B/C ratio & NPV values. [8]

Particulars	Project A	Project B
Investment	Rs. 1,10,000/-	Rs. 1,10,000/-
Cash Inflow Year 1	Rs. 31,000/-	Rs. 71,000/-
Cash Inflow Year 2	Rs. 40,000/-	Rs. 40,000/-
Cash Inflow Year 3	Rs. 50,000/-	Rs. 40,000/-
Cash Inflow Year 4	Rs. 70,000/-	Rs. 20,000/-
Interest Rate	14%	14%

- c) Write a short note on ARR method and IRR method. [6]

