

Total No. of Questions :10]

SEAT No. :

**P1689**

[Total No. of Pages :3

**[5058] - 310**

**T.E. (Civil)**

**PROJECT MANAGEMENT & ENGINEERING ECONOMICS**

**(2012 Pattern) (Semester - II) (End Semester) (301008)**

*Time : 2½ Hours]*

*[Max. Marks :70*

*Instructions to the candidates:*

- 1) *Answer Q1 or Q2, Q3 or Q4, Q5 or Q6, Q7 or Q8, Q9 or Q10.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right side indicate full marks.*
- 4) *Assume Suitable data if necessary.*

**Q1) a)** Define the term “Project Life Cycle”. Draw and describe the project life cycle for construction of a dam project showing various phases. **[5]**

b) Differentiate between CPM and PERT. **[5]**

OR

**Q2) a)** Write a note on Precedence Network. **[5]**

b) Discuss the procedure for step by step network crashing. **[5]**

**Q3) a)** Write short note on : PMBOK. **[5]**

b) Explain three time estimates in PERT. **[5]**

OR

**Q4) a)** Discuss in detail various function of management. **[5]**

b) Write short note on: Merits & Demerits of matrix structures. **[5]**

**Q5) a)** State the laws of diminishing marginal utility. Explain with an example. **[6]**

b) Differentiate between cost, price and value with an example. **[6]**

c) Discuss the application of economics in civil Engineering. **[6]**

OR

**P.T.O.**

- Q6)** a) State & Explain law of supply. [6]  
 b) Discuss the following in brief: [8]  
 i) Equilibrium Price  
 ii) Law of substitution.  
 c) Discuss the indifference curve technique. [4]

- Q7)** a) Following table shows the annual consumption of the items used in a project and their unit cost. Classify them in A, B, C classes and plot the ABC analysis curve. [8]

Item No.	Annual Consumption in unit	Unit Cost (RS)
1	12000	3.00
2	22000	2.50
3	1900	1.70
4	45000	2.80
5	3500	1.70
6	60000	1.50
7	9000	2.0
8	32000	3.0

- b) What kind of safety measures are to be adopted on dam construction site. [4]  
 c) Design safety guidelines for high rise building construction. [4]

OR

- Q8)** a) Write Short note on: [6]  
 i) Purchase order  
 ii) Fixed & variable cost  
 b) A construction company purchases 10,000 bags of cement annually. Each bag of cement cost Rs. 350/- and cost incurred in procuring each lot is Rs. 160/-. The cost of carrying is 24%. Find EOQ. [4]  
 c) What are the various causes of accidents on construction site. [6]

**Q9) a)** Write short note on: **[8]**

i) Break Even analysis.

ii) Pay-back period.

b) A company is thinking about invest in a new project it has two alternatives A and B. Following data pertains to the two alternatives. **[8]**

<b>Particulars</b>	<b>Project A</b>	<b>Project B</b>
Initial Investment	1,00,000	1,60,000
<b>Cash Inflows in Rs</b>		
Year 1	80,000	90,000
Year 2	60,000	70,000
Interest Rate	10%	10%

Which project will the company select based on NPV and IRR.

OR

**Q10)a)** Explain in detail various methods of project appraisal. **[6]**

b) Define project. What are the requirements for successful completion of a project . **[6]**

c) State the advantages of NPV method over IRR method. **[4]**

