

B.Tech. Civil (Construction Management)/

**B.Tech. Civil (Water Resources
Engineering)**

Term-End Examination

June, 2008

**ET-524(A)/ET-534(A) : PRINCIPLES OF
ENGINEERING MANAGEMENT AND
ECONOMICS**

Time : 3 hours

Maximum Marks : 70

Note : Attempt any **seven** questions. All questions carry equal marks.

1. The three important stages of a management system are Planning & Designing, Execution and finally Monitoring & Control. The Control stage is critical due to factual conditions on ground. Explain the need of control with reasons and the types of control required. 4+6
2. What do you understand by Demand Elasticities? Explain the Price Elasticity and factors governing Price Elasticity of Demand with the help of elasticity curves. Derive Demand-Revenue relationship. 2+4+4

3. Identify the ten critical elements of Economic Environment relevant to corporate business management and national economic management. Give brief explanation of each. 1×10
4. List out any five basic training methods and explain in detail any two of them. $5 + 2 \times \frac{1}{2} = 10$
5. Differentiate between Power, Authority and Influence. Explain any three types of Power. $4 + 3 \times 2 = 10$
6. Explain the types of organisation given below with advantages and disadvantages :
- | | |
|---------------------------------------|---|
| (a) Line organisation | 2 |
| (b) Functional organisation structure | 2 |
| (c) The line and staff organisation | 5 |
| (d) Matrix structure | 3 |
7. (a) Explain the relevance of Time Value of Money. What are the primary reasons for having interest rate? Justify your answer. $3 + 2$
- (b) The present value of Rs. 3,000 at an annual interest rate of 15% over a period of 10 years will accumulate to what amount? 5
8. What are the two important problem-related dimensions? Based on these two dimensions, explain the four kinds of decision modes. $2 + 2 \times 4 = 10$

9. (a) Explain the difference between PERT and CPM Techniques. 4
- (b) What are the steps involved in developing CPM network? Illustrate your answer with the help of an example. 6
10. Explain the concept of Value Engineering with the help of Utility v/s Cost curve. How many types of 'value' are there? Explain them briefly. 6+4

