

B.Tech. Civil (Construction Management) /
B.Tech. Civil (Water Resources Engineering) /
B.Tech. (Aerospace Engineering)

Term-End Examination

June, 2017

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

Time : 3 hours

Maximum Marks : 70

Note : Attempt any **five** questions. All questions carry equal marks. Question no. 1 is **compulsory**.

1. Distinguish between each of the following pairs :
- $$4 \times 3 \frac{1}{2} = 14$$
- (a) Job Analysis and Job Enrichment
- (b) Centralization and Decentralization of Authority
- (c) Vertical and Horizontal Coordination
- (d) Functional Project Organization and Matrix Organisation

2. (a) Explain Statistical Process Control. Explain the various control charts that are used for controlling the process, both for variables and attributes. 8
- (b) Explain the measures of (i) Central tendency, and (ii) Dispersion. 6
3. (a) Explain the major characteristics of Scientific Management and Human Relations Approach. Discuss the points of criticism of both. 8
- (b) What do you understand by Theory 'X' and Theory 'Y' ? Explain the assumptions made. 6
4. (a) What is a Team ? What are the reasons responsible for failure of a team ? What are the symptoms of an effective team ? Give suggestions for improving the team work. 7
- (b) Describe the causes of project overruns during various phases of a project. What measures do you suggest to combat these overruns ? 7
5. (a) What is Environment Impact Analysis ? Show, with the help of a chart, the activities in the EIA process. 8
- (b) Discuss various roles of a manager. 6

6. (a) Explain various types of demand elasticities giving suitable notations with explanations. 7
- (b) Derive the Demand-Revenue relationship. 7

7. Write short notes on the following : $4 \times 3 \frac{1}{2} = 14$

- (a) Johari Window
- (b) Management Grid
- (c) Average Outgoing Quality Level (AOQL)
- (d) Group Decision-making
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