

Total No. of Questions : 12]

SEAT No. :

**P2258**

**[4758] -15**

**[Total No. of Pages : 3**

**T.E. (Mechanical)**

**INDUSTRIAL ENGINEERING AND TECHNOLOGY MANAGEMENT  
( 2008 Course) (Semester - I)**

*Time : 3 Hours]*

*[Max. Marks : 100*

*Instructions to the candidates:*

- 1) Answers to the two sections should be written in separate books.*
- 2) Neat diagrams must be drawn wherever necessary.*
- 3) Use of logarithmic tables, slide rule, Mollier charts, electronic pocket calculator and steam tables is allowed.*
- 4) Assume suitable data, if necessary.*

**SECTION - I**

- Q1)** a) What is meant by scientific management? Explain in brief various functions of management. **[8]**
- b) Define material handling. Explain the role of material handling principles in improving the productivity of a firm. **[8]**

OR

- Q2)** a) Define the plant layout & plant location. What are various factors Involved in selection of site for good plant? **[8]**
- b) Briefly discuss various leadership styles adopted in industry. **[8]**
- Q3)** a) Define and explain what do you understand by industrial engineering? What is its importance? **[8]**
- b) Discuss the two handed process chart in industrial engineering. **[4]**
- c) What are therbligs? Give any six therbligs with symbols. **[4]**

OR

**P.T.O.**

- Q4)** a) Define method study. Explain the procedure for method study. [8]  
b) Explain productivity improvement methods for organization. [4]  
c) Write a note on SIMO chart. [4]

- Q5)** a) A manufacturing company requires 9500 units per year. Ordering cost is Rs. 125 per order and carrying cost is 20%. Purchase price per unit is Rs. 45. [6]

Determine:

- i) EOQ  
ii) Optimum number of orders  
iii) Total cost including acquisition of material  
b) What do you understand by Break-even analysis? Explain. [6]  
c) Give the purpose of inventory control. [6]

OR

- Q6)** Write notes on (Any Three). [18]

- a) Zero based Budgeting.  
b) SIMO Chart.  
c) Aggregate Planning.  
d) ABC Analysis.

## **SECTION - II**

- Q7)** a) What is the difference between Engineering & Technology? (Write only 3 points). Also write a note on Technology Management. [8]  
b) Differentiate between product technology & process technology. [8]

OR

- Q8)** a) Explain the role of Government in Management and development of Technology. [8]  
b) Every coin has two sides-explain this with the help of Technology development. Hence write whether it is good or bad for the progress?[8]

**Q9) a)** With the help of proper example. explain Quality Function Deployment (QFD). **[8]**

b) Write a note on Innovation and creativity with suitable examples. **[8]**

OR

**Q10)a)** How invention is different than innovation? **[4]**

b) Write a note on Technology monitoring in the industry. **[4]**

c) What is Technology Forecasting? Explain any two methods of the same with an example. **[8]**

**Q11)a)** For you as an engineer, write your SWOT Analysis. **[4]**

b) Write a note on Technology strategy and Technology Transfer. **[6]**

c) Write a note on **[8]**  
Technology Absorption and Technology Diffusion.

OR

**Q12)** Write notes on following. (Any three). **[18]**

a) IPR (Intellectual Property Right)

b) Growth curve.

c) Extrapolation

d) Morphological Analysis

e) Mission flow diagram.

