

Total No. of Questions—12]

[Total No. of Printed Pages—4+2

Seat No.	
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**T.E. (First Semester) EXAMINATION, 2014**  
**INDUSTRIAL ENGINEERING AND TECHNOLOGY**  
**MANAGEMENT**

(Common to Mechanical/Automobile Engg.)

(2008 PATTERN)

**Time : Three Hours****Maximum Marks : 100**

**N.B. :—** (i) Answers to the two sections should be written in separate answer-books.

(ii) Answer any *three* questions from each Section.

(iii) Neat diagrams must be drawn wherever necessary.

(iv) Figures to the right indicate full marks.

(v) Use of calculator is allowed.

(vi) Assume suitable data, if necessary.

**SECTION I**

1. (a) Explain the concept of scientific management. Also discuss the Fredrick Taylor's contribution towards scientific management. [8]
- (b) Explain in brief various functions of management. [8]

*Or*

2. (a) Explain the selection criteria for Material Handling system. [8]
- (b) Explain various types of Layout. State their advantages and disadvantages. Justify your type giving appropriate application. [8]
3. (a) Explain productivity improvement methods for organization. [6]
- (b) Describe with suitable example : [6]
- (i) Operation process chart
- (ii) Multiple Activity chart.
- (c) Discuss the importance of Motion Economy. [4]

*Or*

4. (a) Explain the following : [6]
- (i) Job evaluation
- (ii) Merit rating.
- (b) Describe in brief the different types of allowances used while determining standard time. [6]
- (c) State and explain various functions involved in production planning and control. [4]

5. (a) A small project includes 7 major activities whose time destinations are listed in table below : [6]

Activity	Duration (min)
1—2	20
1—3	40
1—4	30
2—5	10
3—5	60
4—6	50
5—6	70

- (i) Draw the project network
- (ii) Find critical path.
- (b) Define job evaluation. Describe the purpose and various methods of job evaluation. [6]
- (c) What is inventory ? Explain various costs involved with inventory. [6]

Or

6. (a) Explain in detail the different elements of costs. [6]

- (b) Write notes on (any *three*) : [6]
- (i) Maslow's hierarchy of needs
  - (ii) Zero based budgeting
  - (iii) ABC analysis
  - (iv) Exponential smoothing.
- (c) What are the various functions of Production planning and control ? [6]

## SECTION II

7. (a) Define "Management of Technology" and explain its significance. [6]
- (b) Explain the role of Government in the development of Technology. [6]
- (c) Write a short note on forms of Technology. [4]

*Or*

8. (a) Explain in brief the role of technology in the creation of wealth. [6]
- (b) Explain the following : [6]
- (i) Impact of Technology on Society.
  - (ii) Technology Monitoring.
- (c) Draw and explain the "S-curve" for the Technology Development. [4]

9. (a) What do you understand by "Technology Forecasting" ? Explain its importance for the industry. [6]
- (b) Explain with example "Technology Leadership and Followership". [6]
- (c) What is Technology Assessment ? [4]

*Or*

10. (a) What is Technology Strategy ? How is it different from other business strategies ? [6]
- (b) Explain the scope of Innovation Management. [4]
- (c) Explain in brief the following : [6]
- (i) Technology monitoring
- (ii) Technology choice.
11. (a) What do you understand by "Technology Diffusion" and "Technology Absorption" ? [6]
- (b) Write notes on : [6]
- (i) SWOT analysis
- (ii) IPR (Intellectual Property Rights).
- (c) State and explain the various levels of Technology Transfer. [6]

*Or*

12. Write notes on (any *three*) :

[18]

- (i) Implementation of new technology
- (ii) Product Development
- (iii) Challenges of globalization
- (iv) Speed of diffusion of technology
- (v) Invention, innovative and creativity.