

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]

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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.

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