

MANAGEMENT SCIENCE

(Common to Chemical, CSE, IT, ECE, EEE)

Course Code: 13HM1102

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Course Educational Objectives:

To familiarize with the process of management and to provide basic insights into to select contemporary management practices.

Course Outcomes:

To understand the management processes and evolve management levels for effective decision making

UNIT-I

(16 Lectures)

INTRODUCTION TO MANAGEMENT:

Concept-nature and importance of management- functions of management- evolution of management thought- decision making process- designing organization structure- principles of organization – types of organization structure

UNIT-II

(12 Lectures)

OPERATIONS MANAGEMENT:

Principles and types of plant layout- work study- statistical quality control- control charts(R Chart, P Chart & C Chart- Simple numerical problems) – materials management- Need for Inventory Control- EOQ, ABC Analysis(Simple numerical Analysis)- Types of Inventory Analysis(HML, SDE, VED, FSN Analysis)

UNIT-III

(10 Lectures)

HUMAN RESOURCE MANAGEMENT:

Concept of HRM, HRD and PMIR- Functions of HR Manager- theories of motivation and leadership styles- Job Evaluation and Merit Rating,

Welfare measures-statutory and non statutory compliance – grievance handling

UNIT-IV

(12 Lectures)

MARKETING MANAGEMENT:

Marketing Management- Functions of Marketing Management- Marketing mix-Market segmentation - Marketing strategies based on product life cycle- Channels of Distribution- Consumer Behavior and marketing research

UNIT-V

(14 Lectures)

PROJECT MANAGEMENT:

Project planning and control- Project life cycle- Development of network- Difference between PERT and CPM- Identifying critical path- probability of completing the project within the given time, cost analysis, - project crashing(simple numerical problems)

TEXT BOOKS:

- 1 Ramanujam Naidu & Sastry, “*Management Science*”, 1st Himalaya Publisher, 2012.
- 2 Vijaya Kumar & Appa Rao, “*Management Science*”, 1st Cengage Publishers, 2012.
- 3 AR Aryasri, “*Management Science*”, 4th Edition, Tata McGraw-Hill, 2009.

REFERENCES:

- 1 O P Khanna, “*Industrial Engineering & Management*”, 2nd Edition, Dhanpat Rai, 2004.
- 2 Martand Telsang, “*Industrial Engineering & Production Management*”, 2nd Edition, S. Chand & Company, 2008.

