

17MB237-TECHNOLOGY MANAGEMENT

Course Objective:

To understand the technology growth, changes, forecasting techniques, Assessment and competitiveness.

Course Outcomes:

To adopt recent technological changes, Assess alternatives and Compete in Industry.

UNIT - I

Introduction to Technology Management: Concept and Meaning of Technology and Technology Management- Technology; Technology management, Evolution and Growth of Technology, Role and Significance of Technology Management, Impact of Technology on Society and Business- Technology and competition; Key issues in managing technological innovation, Forms of Technology- Process technology; Product technology

UNIT - II

Technology Acquisition: Technology Acquisition, Alternatives for Acquiring New Technologies, Reasons Compelling a Company for Obtaining a New Technology, Management of Acquired Technology, Measures of Scale and Mechanisms for Acquiring Technologies- Economy of scale or Scale economy; Levels of scale; The measurement of scale; Factors affecting the choice of scale

UNIT - III

Technology Forecasting: Concept of Technology Forecasting- Characteristics of technology forecasting ; Technology forecast method; Principles of technology forecasting, Technology Forecasting Process, Need and Role of Technology Forecasting, Forecasting Methods and Techniques, Planning and Forecasting

UNIT - IV

Technology Strategy and Competitiveness: Technology Strategy-Technology strategy and management; Elements of an accessible technology strategy, Innovation Management, Competitive Advantage- Components of competitive advantage; Creating competitive advantage using value chain, Technology Management Evaluation or Assessment

UNIT - V

Product Technology: Product Development, Role of Government in Technology Management, Technology Development and Competition, Managing Research & Development (R & D), Intellectual Property Management.

Skill Development:

(These activities are only indicative, the Faculty member can innovate)

1. Visit any company and identify the Key issues in managing technological innovation.

2. Prepare a report on Technology acquisition methods followed by a company that you have visited recently.
3. Identify the Technology Forecasting Process followed by a software company known to you in the industry.
4. Prepare a report on how the Technology strategy is decided in a company.
5. Visit any R & D organization and prepare the report on its R&D Operations management.

TEXT BOOKS:

1. White/Bruton, The Management of Technology and Innovation: A strategic approach, Cengage learning, 1st Edition 2010
2. Tarek M. Khalil, Management of Technology, McGraw Hill, 2015

REFERENCE BOOKS:

1. Robert Szakonyi, Handbook of Technology Management, Viva Books Private Limited, 2015
2. Gerard H. Gaynor, Handbook of Technology Management, McGraw Hill, 2015.
3. Betz, Frederic, Strategic Technology Management, New Delhi, McGraw Hill, 2015
4. Neelakantam Tatikonda, Management of Technology, Excel Publishers, New Delhi, 2010