

GUJARAT TECHNOLOGICAL UNIVERSITY

M. E. Mechanical (Industrial Engineering) (Branch Code - 46)

Year – II (Semester – III) (W.E.F. July 2013)

Major Elective IV

4. Strategic Technology Management (734605)

Sr. No.	Topic	Hours
1	Introduction to Strategic Management: Basic Concept of Strategic Management, Vision, Mission, Objectives, Business Policy, Corporate Strategy, Impact of globalization, internet and E-Commerce, Basic Model of Strategic Management, Strategic Decision Making, Role of Strategic Management in Global Competitiveness.	10
2	Strategic Management Practices: SWOT Analysis, Various Corporate Strategies: Growth/ Expansion, Diversification, Stability, Retrenchment & Combination Strategy. Process of Strategic Planning, Stages of corporate development, Corporate Restructuring, Mergers & Acquisitions, Strategic Alliances, Portfolio Analysis, Corporate Parenting, BCG Model, Porters Model.	10
3	Introduction to Technology Management: Technology and competition, technology acquisition. Integration of strategic planning and technology planning. Key performance factors for technology management, Understanding Management of Technology, Key concepts – importance – issues. Technology development and society-Technology and Corporate growth, Technology forecasting, Technology innovation and applied research, Technology transfer-Process of technological change – Innovation technology evaluation, Adoption and diffusion.	12
4	Technology Strategy: Technology intelligence – collaborative mode, Appropriation of technology – Deployment in new products, simultaneous engineering, Development in the value chain.	10
5	Managing Technology (A): Technology evaluation and financing – Evaluation of R & D projects, Budgeting and cost control changing role of R & D.	08
6	Managing Technology (B): Management of Manufacturing technology- Product development- Market development – corporate cultures – technology audits.	06
		56

Term Work:

The term work shall be based on the topics mentioned above.

Practical / Viva:

The candidate shall be examined on the basis of term-work.

Text Books:

- 1 Managing Engineering Technology, Babcock D.L. Prentice Hall.
- 2 Concepts in Strategic Management and Business Policy, Wheelen Thomas, Hunger J. David and Rangarajan Krish, Pearson Education
- 3 Strategic Management of Technology and Innovation, Burgelman et.al Tata McGraw Hill
- 4 Cases in Strategic Management, Budhiraja S.B. and Athreya M.B. -, Tata Mc Graw Hill

References:

1. Managing Technology and Innovation for competitive Advantage, Narayanan U.K. Pearson Education, Asia.
2. Managing Technology – competing Through New Ventures, Innovation and Corporate Research, Betz F., Prentice Hall.
3. Managing Technology - The Strategic Vies, Lowell W. Steele, McGraw Hill.
4. Business Policy and Strategic Management, Kazmi Azar - Tata Mc Graw Hill
5. Strategic Management: Concepts and Cases, Thomson, Tata Mc Graw Hill
6. Business Policy and Strategy, Cliff Bowman, Prentice Hall of India
7. Strategic Technology management, Cleland and Bursic Amacom, Newyork.
8. Technology Strategy and the Firm, Mark Dodgson, Longman.