### EC-106

### **ECONOMICS FOR ENGINEERS**

L T P C

### **COURSE OBJECTIVES:**

- 1. To provides the students with knowledge of basic economic problems and the relationship between engineering technology and economics.
- 2. To alerts the students to understand the demand determinats and the methods of demand forecasting of a product.
- 3. To give knowledge to the students about various costs for determining the manufacturing of a product.
- 4. To guide the students for accounting the depreciation and providing the funds for replacement of necessary and depreciated machinery and equipment.
- 5. To sensitize the students to the changing environment of banking scenario and to understand the functions of RBI.

### **COURSE OUTCOMES:**

# After successful completion of the course, the students are able to

- 1. illustrate the decision making objective of a firm.
- 2. describe the overall functions of Demand, Supply, Price, Income of the firms.
- 3. describe various cost concepts and maintainence of break even scenario for a business.
- 4. demonstrate time value of money and Accounting concepts in the changing society.
- 5. Explain Liberalization, Privatization and Globalization and the impact of them on economy.

**UNIT I** Text Book - 1,2 **(10)** 

**ENGINEERING ECONOMICS - AN OVERVIEW :** Economics definition, Functions & Scope of Engineering economics, Basic economic problem, Relationship between Science, Engineering, Technology and Economics.

**FIRMS OBJECTIVE:** Theories of Maximization - Profit Maximization, Growth Maximization, Sales Revenue Maximization, Utility Maximization and Wealth Maximization.

UNIT II Text Book - 2,3 (8)

**THEORY OF DEMAND - AN OVERVIEW**: Demand schedule, Nature and characteristics of demand, Law of demand, Limitaions to the law of demand, Elasticities of Demand: Price, Income and Cross elasticity, Demand Forecasting definition, factors determining demand forecasting, methods of demand forecasting.

UNIT III Text Book - 4 (12)

**COST CONCEPTS - AN OVERVIEW :** Introduction, Types of costs: Fixed cost, Variable cost, Average cost, Marginal cost, Real cost, Opportunity cost, Accounting and Economic cost, Cost - Volume profit analysis, Break - Even analysis, Operating leverage.

UNIT IV Text Book - 4 (12)

**ACCOUNTING CONCEPTS - AN OVERVIEW :** Accounting concepts, Double Entry system, Journal, Ledger, Trail balance, Final Accounts Book Keeping system, Depreciation - Definition, functions, methods of depreciation – Straight line, Declining balancem Sum of years digits method and Problems.

UNIT V Text Book - 3,5 (8)

**INDIAN ECONOMY - AN OVERVIEW**: Nature and characteristics of Indian economy, Banking - Meaning and functions of Commercial banks, Functions of RBI. Globalization, Privatization - Meaning, merits and de - merits, Elementary concepts like WTO, GATT, TRIPS, Monetary Policy and Fiscal Policy.

### **LEARNING RESOURCES:**

# TEXT BOOK(s):

- 1. Riggs, Bedworth and Randhwa, Engineering Economics, McGrawhill Education India.
- 2. S.C.Sharma and T.R.Banga, Industrial Organisation and Engineering Economics, Khanna Publishers.
- 3. S.K.Misra and V.K.Puri, Economic Environment of Business, Himalaya Publishing House, 2003.
- 4. K.Rajeswara Rao and G.Prasad, Accounting and Finance, Jai Bharat Publishers, 2014
- 5. Francis Cherunilam, Business Environment Text and Cases, Himalaya Publishing House, 2014

### REFERENCE BOOK(s):

- 1. Singh A and Sadh A.N., Industrial Economics, Himalaya Publishing House, Bombay
- 2. H.L.Ahuja, Managerial Economics, S.Chand Publishing, 2007 Ediction
- 3. Datt & Sundharam, Indian Economy, S.Chand Publishing, 2014 Edition

## **WEB RESOURCES:**

- 1. www.managementstudyguide.com : Describes about the amalgamation of economic theory with business practices.
- 2. www.tutorialspoint.com: Provides a platform to learn various courses disscussed in the syllabus.