

# ACCOUNTING AND ECONOMICS FOR ENGINEERS

Course Code: 22HM1101

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## Course Objective

To provide an insight into the basic concepts of financial accounting and economic theories and to develop the managerial skills of the students, for effective business operations.

## Course Outcomes

CO 1: To understand the basic concepts of business and various forms of business organisations.

CO 2: To understand the accounting system and prepare necessary books of accounts.

CO 3: To prepare, analyse and interpret the financial statements using accounting ratios.

CO4: To study the concepts of managerial economics and apply the concepts of demand analysis.

CO5: To describe various production theories, market structures and apply the concepts of break-even techniques for managerial decisions.

## UNIT - I: Business Concepts and Forms of Business Organisation (10 Lectures)

**Business:** Characteristics, Objectives, Classification of business activities - Industry and Commerce, Industry-types: primary, secondary, tertiary; Commerce-trade: types-internal, external; wholesale and retail and auxiliaries to trade.

**Forms and Features of Business Organisation:** Sole Proprietorship, Partnership - Definition, kinds of partners, Advantages and limitation of partnership firm, Partnership deed, Joint Stock Company - Concept, merits and limitations, Types, Formation of company, Public sector and private sector enterprises, Forms of public sector enterprises.

**Learning Outcomes:** At the end of this unit students will be able to:

- Understand various business concepts and business activities. (L2)
- Outline various forms of business organisations. (L2)
- Describe the features of sole proprietorship, partnership and Joint Stock Company. (L2)
- Explain the process of formation of a company. (L2)
- Explain various forms of public enterprises and their characteristics. (L2)

## UNIT – II: Introduction to Financial Accounting (10 Lectures)

**Financial Accounting:** Definition, Importance, Principles - Concepts & Conventions, Double entry book keeping system, Bases of accounting - Cash basis and Accrual basis, Journal, Ledger, Subsidiary books and Trial Balance.

**Learning Outcomes:** At the end of this unit students will be able to:

- Describe accounting concepts and conventions. (L2)
- Understand the double entry system of book keeping. (L2)
- Understand bases of accounting and their significance. (L2)
- Build journal, ledger and various subsidiary books. (L4)
- Describe the purpose and preparation of trial balance. (L2)

### **UNIT – III: Preparation and Interpretation of Financial Statements (10 Lectures)**

**Financial Statements:** Objective, Importance and Limitations, Trading Account, Profit and Loss Account, Balance Sheet- Grouping of assets and liabilities, Preparation of final accounts with simple adjustments.

**Interpretation of financial statements:** Accounting Ratios - Objectives, Classification, Limitations and Computation (simple numerical problems).

**Learning Outcomes:** At the end of this unit students will be able to:

- Develop Trading Account, Profit & Loss Account and Balance Sheet (L4)
- Understand the treatment of adjustments in final accounts (L2)
- Solve and interpret various accounting ratios (L3)

### **UNIT – IV: Introduction to Managerial Economics and Demand Analysis (10 Lectures)**

**Managerial Economics:** Definition, Nature and Scope of Managerial Economics

**Demand Analysis:** Definition, types of demand, Demand Determinants, Law of Demand and its exceptions

**Elasticity of Demand:** Definition, Types, Significance of Elasticity of Demand

**Demand Forecasting:** Definition, methods of demand forecasting

**Learning Outcomes:** At the end of this unit students will be able to:

- Describe the nature and scope of managerial economics (L2)
- List out the different types of demand (L1)
- Explain the law of demand and its exceptions (L2)
- Understand various types of elasticity of demand (L2)
- Outline various demand forecasting techniques (L2)

### **UNIT - V: Theories of Production, Cost Analysis and Market Structures (10 Lectures)**

**Production Function:** Concept, Law of Variable Proportions, Iso-quants and Iso-costs and Least Cost Combination of Inputs.

**Cost Analysis:** Types of Cost (Short run and Long run, Fixed and Variable cost, Marginal cost, Opportunity cost and Replacement cost). Break-Even Analysis (BEA) - Determination of Break-Even Point (Simple numerical problems) - Managerial applications and limitations of BEA.

**Types of markets:** Perfect, Monopoly and Monopolistic markets – Concepts and Features.

**Learning Outcomes:** At the end of this unit students will be able to:

- Explain the production function with one and two variables of inputs (L2)
- Recognise various cost concepts (L2)
- Determine Break Even Point (L3)
- Solve managerial problems using BEA (L3)

**TEXT BOOKS:**

1. SN Maheswari, SK Maheswari & SK Maheswari, Financial Accounting, 6th edition, Vikas Publications, 2018
2. M. Haneef & A. Mukherjee, Financial Accounting, 2nd edition, Tata McGraw Hill, 2018
3. R.L. Varshney & K.L Maheswari, Managerial Economics, 19th edition, S. Chand Publishers, 2018
4. H L Bhatia & S N Maheshwari, Economics for Engineers, 3rd edition, Vikas Publications, 2017
5. A R Aryasri, Managerial Economics and Financial Analysis, 3rd edition, Tata McGraw Hill, 2012
6. S A Siddiqui & A. S. Siddiqui, Managerial Economics and Financial Analysis, 1st edition, New Age Publishers, 2015

**REFERENCES:**

1. Ramachandran N, Ram Kumar Kakani, Financial Accounting for Management, 2nd Reprint edition, Tata McGraw Hill, 2006
2. SP Jain & KL Narang, Financial Accounting, 12th edition, Kalyani Publishers, 2014
3. NCERT, Class XI, 2019, Business Studies, -edition, NCERT Publication Division, 2018
4. P Venkata Rao & J. V.Prabhakar Rao, Managerial Economics & Financial Analysis, 1st edition, Maruti Publications, 2011
5. Dominick Salvatore, Managerial Economics: Principles and Worldwide Applications, 8th edition, Oxford University Press, 2012
6. D N Dwivedi, Managerial Economics, 8th edition, PHI Publication, 2010