ACCOUNTING AND ECONOMICS FOR ENGINEERS

Course Code: 22HM1101	L	T	P	C
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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: At the end of the course, the student will be able to
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.
CO 4: To study the concepts of managerial economics and apply the concepts of demand analysis.
CO 5: 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:
1. Understand various business concepts and business activities. (L2)
2. Outline various forms of business organisations. (L2)
3. Describe the features of sole proprietorship, partnership and Joint Stock Company. (L2)
4. Explain the process of formation of a company. (L2)
5. 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:

1. Describe accounting concepts and conventions. (L2)
2. Understand the double entry system of book keeping. (L2)
3. Understand bases of accounting and their significance. (L2)
4. Build journal, ledger and various subsidiary books. (L4)
5. 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:
1. Develop Trading Account, Profit & Loss Account and Balance Sheet (L4)
2. Understand the treatment of adjustments in final accounts (L2)
3. 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:
1. Describe the nature and scope of managerial economics (L2)
2. List out the different types of demand (L1)
3. Explain the law of demand and its exceptions (L2)
4. Understand various types of elasticity of demand (L2)
5. 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:
1. Explain the production function with one and two variables of inputs (L2)

2. Recognise various cost concepts (L2)
3. Determine Break Even Point (L3)
4. Solve managerial problems using BEA (L3)

Text Books:
1. SN Maheswari, SK Maheswari& SK Maheswari, Financial Accounting, 6th edition, Vikas Publications, 2018
2. M. Haneeef& 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

Reference Books:
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, 1stedition, Maruti Publications, 2011
5. Dominick Salvatore, Managerial Economics: Principles and Worldwide Applications, 8thedition, Oxford University Press, 2012
6. D N Dwivedi, Managerial Economics, 8th edition, PHI Publication, 2010