Geethanjali College Of Engineering And Technology
Department of Management Studies

COURSE & SUBJECT FILE

Managerial Economics & Financial Analysis

DEPARATMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

2015-16 II Year B.Tech.(II Semester) A , B & C-Sections

GCET

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1. COVER PAGE

Geethanjali College Of Engineering And Technology

Department of Management Studies

Name of the Subject: Managerial Economics & Financial Analysis

JNTUH CODE:________________________________Programme : *UG*

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3) Design :	**3) Design :**
4) Date :	**4) Date :**

Approved by : (HOD) 1) Name :

2) Sign :

3) Date :

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2. SYLLABUS COPY

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

MANAGERIAL ECONOMICS AND FINANCIAL ANALYSIS

Introduction to Managerial Economics: Definition, Nature and Scope of Managerial Economics–Demand Analysis: Demand Determinants, Law of Demand and its exceptions.

Elasticity of Demand: Definition, Types, Measurement and Significance of Elasticity of Demand. Demand Forecasting, Factors governing demand forecasting, methods of demand forecasting (survey methods, statistical methods, expert opinion method, test marketing, controlled experiments, judgmental approach to demand forecasting)

Theory of Production and Cost Analysis: Production Function – Isoquants and Isocosts, MRTS, Least Cost Combination of Inputs, Cobb-Douglas Production function, Laws of Returns, Internal and External Economies of Scale.

Cost Analysis: Cost concepts, Opportunity cost, Fixed vs. Variable costs, Explicit costs Vs. Implicit costs, Out of pocket costs vs. Imputed costs. Break-even Analysis (BEA)-Determination of Break-Even Point (simple problems)- Managerial Significance and limitations of BEA.

Introduction to Markets & Pricing Policies: ket structures: Types of competition, Features of Perfect competition, Monopoly and Monopolistic Competition. Price-Output Determination in case of Perfect Competition and Monopoly. Objectives and Policies of Pricing- Methods of Pricing: Cost Plus Pricing, Marginal Cost Pricing, Sealed Bid Pricing, Going Rate Pricing, Limit Pricing, Market Skimming Pricing, Penetration Pricing, Two-Part Pricing, Block Pricing, Bundling Pricing, Peak Load Pricing, Cross Subsidization.

Business & New Economic Environment: Characteristic features of Business, Features and evaluation of Sole Proprietorship, Partnership, Joint Stock Company, Public Enterprises and their types, Changing Business Environment in Post-liberalization scenario.

Capital and Capital Budgeting: Capital and its significance, Types of Capital, Estimation of Fixed and Working capital requirements, Methods and sources of raising finance. Nature and scope of capital budgeting, features of capital budgeting proposals, Methods of Capital Budgeting: Payback Method, Accounting Rate of Return (ARR) and Net Present Value Method (simple problems) Introduction to Financial Accounting: Double-Entry Book Keeping, Journal, Ledger, Trial Balance- Final Accounts (Trading Account, Profit and Loss Account and Balance Sheet with simple adjustments). Financial Analysis through ratios: Computation, Analysis and Interpretation of Liquidity Ratios (Current Ratio and quick ratio), Activity Ratios (Inventory turnover ratio and Debtor Turnover ratio), Capital structure Ratios (Debt- Equity ratio, Interest Coverage ratio), and Profitability ratios (Gross Profit Ratio, Net Profit ratio, Operating Ratio, P/E Ratio and EPS).

TEXT BOOKS:

1. Aryasri: Managerial Economics and Financial Analysis, 2/e, TMH, 2005.
2. Varshney & Maheswari: Managerial Economics, Sultan Chand, 2003.

REFERENCES:

1. Ambrish Gupta, Financial Accounting for Management, Pearson Education, New Delhi.
2. H. Craig Peterson & W. Cris Lewis, Managerial Economics, PHI, 4th Ed.
3. Suma Damodaran, Managerial Economics, Oxford University Press.
4. Lipsey & Chrystel, Economics, Oxford University Press.
5. S. A. Siddiqui & A. S. Siddiqui, Managerial Economics & Financial Analysis, New age International Space Publications.
6. Domnick Salvatore: Managerial Economics In a Global Economy, 4th Edition, Thomson.
7. Narayanaswamy: Financial Accounting—A Managerial Perspective, PHI.
8. Raghunatha Reddy & Narasimhachary: Managerial Economics& Financial Analysis, Scitech.
9. S.N.Maheswari & S.K. Maheswari, Financial Accounting, Vikas.
10. Truet and Truet: Managerial Economics:Analysis, Problems and Cases, Wiley.
11. Dwivedi:Managerial Economics, 6th Ed., Vikas.

Prerequisites: Nil

Objective: To explain the basic principles of managerial economics, accounting and current business environment underlying business decision making. Codes/Tables: Present Value Tables need to be permitted into the examinations Hall. Question Paper Pattern: 5 Questions to be answered out of 8 questions.

Each question should not have more than 3 bits.

3. VISION OF THE DEPARTMENT

To provide excellent Electrical and electronics education by building strong teaching and research environment

4. Mission of the Department

1. **To offer high quality graduate program in Electrical and Electronics education and to prepare students for professional career or higher studies.**
2. **The department promotes excellence in teaching, research, collaborative activities and positive contributions to society**

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5. Programme Educational Objectives(EEE)

PEO 1. Graduates will excel in professional career and/or higher education by acquiring knowledge in Mathematics, Science, Engineering principles and Computational skills.

PEO 2. Graduates will analyze real life problems, design Electrical systems appropriate to the requirement that are technically sound, economically feasible and socially acceptable.

PEO 3.Graduates will exhibit professionalism, ethical attitude, communication skills, team work in their profession, adapt to current trends by engaging in lifelong learning and participate in Research & Development.

Programme Outcomes (EEE)

PO 1. An ability to apply the knowledge of Mathematics, Science and Engineering in Electrical and Electronics Engineering.

PO 2. An ability to design and conduct experiments pertaining to Electrical and Electronics Engineering.

PO 3. An ability to function in multidisciplinary teams

PO 4. An ability to simulate and determine the parameters such as nominal voltage current, power and associated attributes.

PO 5. An ability to identify, formulate and solve problems in the areas of Electrical and Electronics Engineering.

PO 6. An ability to use appropriate network theorems to solve electrical engineering problems.

PO 7. An ability to communicate effectively.

PO 8. An ability to visualize the impact of electrical engineering solutions in global, economic and societal context.

PO 9. Recognition of the need and an ability to engage in life-long learning.

PO 10 An ability to understand contemporary issues related to alternate energy sources.

PO 11 An ability to use the techniques, skills and modern engineering tools necessary for Electrical Engineering Practice.

PO 12 An ability to simulate and determine the parameters like voltage profile and current ratings of transmission lines in Power Systems.

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PO 13 An ability to understand and determine the performance of electrical machines namely speed, torque, efficiency etc.

PO 14 An ability to apply electrical engineering and management principles to Power Projects.

PEO & PO Matrix:

PEOs/POs	1	2	3	4	5	6	7	8	9	10	11	12	13	14
I	-	X	-	-	-	-	-	-	-	X	-	-	-	-
II	-	-	-	-	-	X	X	-	-	X	X	-	-	-
III	-	-	X	-	-	X	X	-	-	X	-	X	-	-

6. COURSE OBJECTIVES AND OUTCOMES

Course Objectives:

- To identify the objectives, nature, scope, role & responsibilities of a manager of a business undertaking.
- To apply the knowledge of demand, demand elasticity & demand forecasting by using statistical techniques for any hypothetical enterprise.
- To explain production function relation, law of variable proportion, returns of scale, producer equilibrium, economies of scale, and
- To explain the relevance of cost behaviour analysis & costs that are useful for managerial decision making and Break Even Point(BEP) of an enterprise.
- To differentiate & distinguish price and output decisions in different market structures i.e., perfect, monopoly, monopolistic & Oligopoly competition.
- To compare & contrast the differences between private & public sector undertakings in their features, objectives, scope, merits, uses & limitations in functioning.
- To know the objectives behind financial, economic, taxation, industrial & licensing policies of GOI in the way of liberalization, privatization & globalization concepts.
- To know the meaning, importance, sources, & uses of capital in an enterprise and to estimate the working capital requirements.
- To know the meaning, importance, steps, methods, uses & limitations of Capital Budgeting Analysis and rank various projects under Pay Back, ARR, NPV, PI & IRR methods.
- To identify & explain the process & principles of accounting and to maintain Journal, Ledger, Trial Balance, Manufacturing A/c, Trading A/c., Profit & Loss A/c. and Balance Sheet of any business undertaking.
- To interpret, analyze, discuss & comment on the financial performance of a business unit through liquidity leverage, coverage, turnover & profitability ratios.

Course Outcomes:

- Determine the objectives, nature, scope, role & responsibilities of a manager of a business undertaking.
- Predict the demand for a product or product mix of a company & to analyze various factors influencing demand elasticity.
- Forecast & compute the future sales level of a product by using various quantitative & qualitative techniques and with the help of past sales data.
- Examine optimum production & cost functions with the help of mathematical equations & by developing graphical solutions through linear programming applications.

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- **Assess the cost behaviour, costs useful for managerial decision making and determine Break Even Point (BEP) of an enterprise.**
- **Discuss the concept of equilibrium price and output in different market situations i.e., perfect, monopoly, monopolistic & Oligopoly competition with the help of graphs.**
- **Differentiate private & public sector undertakings in their promotion, incorporation, regulation, administration, legal formalities & existence.**
- **Critically evaluate the policies of GOI in light of liberalization, privatization & globalization concepts.**
- **Outline the steps, methods & sources of raising capital by business undertaking.**
- **List features, steps, merits, uses & limitations of Pay Back, ARR, NPV, PI & IRR methods of Capital Budgeting and compute rank of the projects.**
- **Discuss the process & principles of accounting and prepare Journal, Ledger, Trial Balance, Manufacturing A/c, Trading A/c., Profit & Loss A/c. and Balance Sheet of an enterprise.**
- **Analyze, interpret & comment on the financial statements of a business enterprise by using liquidity leverage, coverage and turnover & profitability ratios.**

PEO & PO Matrix:

PEOs/pos	1	2	3	4	5	6	7	8	9	10	11	12	13	14
I	-	X	-	-	-	-	-	-	-	X	-	-	-	-
II	-	-	-	-	-	X	X	-	-	X	X	-	-	-
III	-	-	X	-	-	X	X	-	-	X	-	X	-	-

Course Objective & Outcome Matrix:

PEOs/POs	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	-	X	-	-	-	-	-	-	-	X	-	-	-	-
2	X	-	-	X	-	-	-	-	-	-	-	-	-	-
3	-	X	X	-	-	-	-	-	-	X	-	-	-	-
4	-	X	X	-	-	-	-	-	-	X	X	-	-	-
5	-	-	-	-	-	-	-	-	-	X	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	X	X	X
7	-	-	-	-	-	-	-	-	-	-	-	-	X	X
8	-	-	-	-	-	-	-	-	-	-	-	-	X	X

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7. BRIEF NOTES ON THE IMPORTANCE OF THE SUBJECT TO THE CURRICULUM

It is of immense pleasure to learn, understand & practice fundamentals of economics in-view of tremendous growth in early 19th century, as an ample attitude of individuals, mangers, directors & corporate entities who tried to substantiate the subject matter of economics with finance & accountancy in early 21st century to find the workable-solutions for enormous problems that are encountered due to fluctuations in business cycles. As India is not exception, when global waves tending towards recession, India also triggered towards anti-recession tools of sustainable growth & all-round economic development through a lead in indigenous technology by using local resources as directed by Mahatma Gandhi. This situation in the economy motivated universities/institutions to provide the similar knowledge to young technocrats, who are the erectors of New India(Bharat Nirman) at source level of entrepreneurs, to achieve better out of best through efficient and effective utilisaiton of managerial resources 5Ms(men, machines, methods, money & materials). Hence Managerial Economics & Financial Analysis probes into all-round business analysis.

8. PREREQUISITES, IF ANY

1. **Student should have basic account knowledge.**
2. **Aware of business environment.**

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9. INSTRUCTIONAL LEARNING OUTCOMES

INTRODUCTION TO MANAGERIAL ECONOMICS & DEMAND ANALYSIS-

- **Apply economic choices & decisions to the functional areas of an enterprise & understand the boundaries of managerial economics.**
- **Apply various fundamental concepts of managerial economics while making functional decisions.**
- **Estimate consumer behavioural influences & apply the same for influencing consumption, production & marketing decisions.**
- **Know the concept and definition of Demand.**
- **State the Law of Demand and its exceptions.**
- **Identify different types of demand and its determinants.**

DEMAND ANALYSIS-II: ELASTICITY OF DEMAND

- **Determine the types of elasticity of demand and the significance of elasticity of demand.**

- **Identify the need for forecasting demand and factors affecting demand forecasting.**
- **Discuss, Identify and apply various managerial, mathematical, statistical & OR decision models in the functional areas of hypothetical business unit.**
- **Clarify the role & responsibilities as a chief economic advisor to the enterprise & apply optimization models in support of expert/ intelligent decision system.**
- **Evaluate and apply demand forecasting methods in real business life.**

THEORY OF PRODUCTION AND COST ANALYSIS

- **Know the functional relationship between the factors.**
- **Able to understand the input-output relationship.**
- **Discuss the returns to scale and returns to factor concepts.**
- **Utilize the resources in an efficient way by knowing the concepts of internal economies and external economies of scale.**
- **Know the concept of diseconomies of scale.**
- **Able to understand the concepts of Iso-types, Iso-costs.**
- **Discuss the concepts of MRTS and Least-cost combination of input factors.**
- **Discuss different cost concepts.**
- **Know the importance of cost-output relationship and optimum size of the firm.**
- **Apply the concept of Break-even-analysis, its determination, significance and limitations.**

INTRODUCTION TO MARKETS AND PRICING STRATEGIES

- **Differentiate the markets and their competitive situations.**
- **Know the features of different markets.**
- **Determine price-output relationship in different market structures.**
- **Analyse the advantages and disadvantages of different market structures.**
- **Know and apply different pricing methods in different situations to the products.**

BUSINESS & NEW ECONOMIC ENVIRONMENT

- **Identify the factors affecting the choice of form of business organization.**
- **Analyse different forms of business organizations.**
- **Know the features of different forms of business organizations.**
- **Evaluate each form of business organization.**
- **Know the New economic environment and New Industrial Policy 1991.**
- **Evaluate the results of Liberalisation, Privatisation and Globalisation policies.**
- **Go through with the changing business environment to post-liberalisation scenario.**

CAPITAL AND CAPITAL BUDGETING

- **Know the concept and significance of capital.**
- **Differentiate the types of capital.**
- **Utilise different sources of capital and their implications to the business.**
- **Identify the factors affecting the requirement of capital and estimation of working capital requirement.**
- **Awareness of the institutional network in the Indian context for raising capital.**
- **Know the concept and significance of capital budgeting.**
- **Evaluate different kinds of capital budgeting decisions.**
- **Estimate the cash flows.**
- **Evaluate the investment proposals under payback period, ARR, IRR, NPV & PI methods.**

INTRODUCTION TO FINANCIAL ACCOUNTING

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- **Know the concept and significance of accounting branches of accounting.**
- **Prepare trail balance of the business transactions of the Enterprise.**
- **Learn the concepts and conventions of accounting.**
- **Practice double-entry book keeping and know its significance.**
- **Differentiate the types of accounts and rules governing the accounts.**
- **Prepare journal/subsidiary books and ledger accounts for an enterprise.**
- **Preparation of final accounts comprising trading account, profit and loss account and balance sheet with simple adjustments.**

FINANCIAL ANALYSIS THROUGH RATIOS

- **Know the importance of the ratio as an analytical tool.**
- **Utilise the concepts of liquidity, solvency and profitability ratios in financial analysis.**
- **Analyse the financial position by using different types of ratios.**
- **Know the significance and limitations of ratios.**

10. COURSE MAPPING WITH POS

S.No	Course Outcome	POs
1	Determine the objectives, nature, scope, role & responsibilities of a manager of a business undertaking. Predict the demand for a product or product mix of a company & to analyze various factors influencing demand elasticity.	PO2, PO 3, PO 6, PO 7, PO 8, PO 9, PO 14
2	Forecast & compute the future sales level of a product by using various quantitative & qualitative techniques and with the help of past sales data.	PO 2, PO 6, PO 7, PO 9,
3	Examine optimum production & cost functions with the help of mathematical equations & by developing graphical solutions through linear programming applications. Assess the cost behaviour, costs useful for managerial decision making and determine Break Even Point(BEP) of an enterprise.	PO 12,PO13,
4	Discuss the concept of equilibrium price and output in different market situations i.e., perfect, monopoly, monopolistic & Oligopoly competition with the help of graphs.	PO 7, PO 9, PO 11, PO 12, PO14
5	Differentiate private & public sector undertakings in their promotion, incorporation, regulation, administration, legal formalities & existence. Critically evaluate the policies of GOI in light of liberalization, privatization & globalization concepts.	PO 2, PO 5,PO 7, PO 8,PO9, PO 10, PO 12, PO 13, PO 14

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6	Outline the steps, methods & sources of raising capital by business undertaking. List features, steps, merits, uses & limitations of Pay Back, ARR, NPV, PI & IRR methods of Capital Budgeting and compute rank of the projects.	PO1, PO 3, PO 6, PO 12
7	Discuss the process & principles of accounting and prepare Journal, Ledger, Trial Balance, Manufacturing A/c, Trading A/c., Profit & Loss A/c. and Balance Sheet of an enterprise	PO1, PO 3,PO4, PO 6, PO 7, PO 9, PO 12
8	Analyze, interpret & comment on the financial statements of a business enterprise by using liquidity leverage, coverage and turnover & profitability ratios.	PO1, PO 7,PO8

Year-Sem	Course Title	Course Objectives	Course Outcomes	Missing Content	Add-on Content	Mapping with PEOs	Mapping with POs	Teaching aids
2-2	Managerial Economics & Financial Analysis	To identify the objectives, nature, scope, role & responsibilities of a manager of a business undertaking. To apply the knowledge of demand, demand elasticity & demand forecasting by using statistical	Determine the objectives, nature, scope, role & responsibilities of a manager of a business undertaking. Predict the demand for a product or product mix of a company	Practical Exposure in estimation of Sales Estimation, Break Even Point, Working Capital Statement, Capital Budgeting Estimates, Accounting Rules & Regulations and Interpretation of Financial Statements.	Working Exposure on Accounting Packages	--	--	BB, OHP & LCD AND Guest Lecture

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		techniques for any hypothetical enterprise. To explain production function relation, law of variable proportion, returns of scale, producer equilibrium, economies of scale, and To explain the relevance of cost behaviour analysis & costs that are useful for managerial decision making and Break Even Point(BEP) of an enterprise. To differentiate & distinguish price and output decisions in different market structures i.e., perfect, monopoly, monopolistic & Oligopoly competition. To compare & contrast the	& to analyze various factors influencing demand elasticity. Forecast & compute the future sales level of a product by using various quantitative & qualitative techniques and with the help of past sales data. Examine optimum production & cost functions with the help of mathematical equations & by developing graphical solutions through linear programming applications. Assess the cost behaviour, costs useful for managerial					

		differences between private & public sector undertakings in their features, objectives, scope, merits, uses & limitations in functioning. To know the objectives behind financial, economic, taxation, industrial & licensing policies of GOI in the way of liberalization, privatization & globalization concepts. To know the meaning, importance, sources, & uses of capital in an enterprise and to estimate the working capital requirements. To know the meaning, importance, steps, methods,	decision making and determine Break Even Point (BEP) of an enterprise. Discuss the concept of equilibrium price and output in different market situations i.e., perfect, monopoly, monopolistic & Oligopoly competition with the help of graphs. Differentiate private & public sector undertakings in their promotion, incorporation, regulation, administration, legal formalities & existence. Critically					

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		uses & limitations of Capital Budgeting Analysis and rank various projects under Pay Back, ARR, NPV, PI & IRR methods. To identify & explain the process & principles of accounting and to maintain Journal, Ledger, Trial Balance, Manufacturing A/c, Trading A/c., Profit & Loss A/c. and Balance Sheet of any business undertaking. To interpret, analyze, discuss & comment on the financial performance of a business unit through liquidity leverage, coverage, turnover &	evaluate the policies of GOI in light of liberalization, privatization & globalization concepts. Outline the steps, methods & sources of raising capital by business undertaking. List features, steps, merits, uses & limitations of Pay Back, ARR, NPV, PI & IRR methods of Capital Budgeting and compute rank of the projects. Discuss the process & principles of accounting and prepare Journal, Ledger, Trial Balance, Manufacturing A/c,					

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		profitability ratios.	**Trading A/c., Profit & Loss A/c. and Balance Sheet of an enterprise. Analyze, interpret & comment on the financial statements of a business enterprise by using liquidity leverage, coverage and turnover & profitability ratios.**						

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11. CLASS TIME TABLE

12. INDIVIDUAL TIME TABLE

13. MICROPLAN WITH SCHEDULE

Geethanjali College of Engineering & Technology						
Department of Management Studies						
Micro Plan::MEFA III-B.Tech(IT)-A Section-Ms. APS Jyothi						
No	**Date**	**Day**	**Unit**	**Topic Description**	**Aids**	**Period**
1				Concepts of Managerial Economics, Mgt., Economics, Nature Characteristics	BB/OHP/PP	1
2				Managerial Economics, Scope, Significance & Use	BB/OHP/PP	1
3				Fundamental Concepts of Managerial Economics	BB/OHP/PP	1
4				Scope & Consumer behaviour introduction to indifference curves	BB/OHP/PP	1
5				Discussion class	BB/OHP/PP	1
6				Tutorial Class	BB/OHP/PP	1
7				Interrelationship with other disciplines	BB/OHP/PP	1
8				Role & Responsibilities and Model-Building in Managerial Economics	BB/OHP/PP	1
9				Concept, functions, assumptions, properties, Limitations & Graph of Demand	BB/OHP/PP	1
10				Distinctions of demand	BB/OHP/PP	1
11				Discussion class	BB/OHP/PP	1
12				Tutorial Class	BB/OHP/PP	1
13				Meaning, importance, Types, graph and formula for Elasticity of Demand	BB/OHP/PP	1
14				Methods of Measuring Elasticity, point & arc elasticity's & factors infl.	BB/OHP/PP	1
15				Advertisement & Cross Elasticity of Demand Price & Income Elasticity of Demand	BB/OHP/PP	1
16				Factors Influencing Demand	BB/OHP/PP	1
17				Discussion class	BB/OHP/PP	1
18				Tutorial Class	BB/OHP/PP	1
19				Meaning, importance, steps, uses and limitations of demand forecasting	BB/OHP/PP	1
20				Methods of Demand forecasting(Qualitative & Quantitative)	BB/OHP/PP	1
21				Meaning, Use, Limitations, Assumptions & types of production functions	BB/OHP/PP	1
22				Production function with one variable inputs(LVP/ROS)	BB/OHP/PP	1
23				Production function with two variable inputs(MRTS/PE/LCIOC)	BB/OHP/PP	1
24				Production function with all variable inputs(RTS)	BB/OHP/PP	1
25				Economies of Scale of Production(Internal/External/SR-LR/SS-LS)	BB/OHP/PP	1
26				Meaning, concept, importance and types of costs & Cost Behaviour Analysis	BB/OHP/PP	1
27				Introduction to BEP, assumption, limitations and uses	BB/OHP/PP	1
28				Practicing problems in BEP with different models	BB/OHP/PP	1
29				Discussion class.	BB/OHP/PP	1
30				Tutorial Class	BB/OHP/PP	1
31				Meaning, concept, types of markets & market Structures.	BB/OHP/PP	1
32				Features of perfect, monopoly, monopolistic, oligopoly, duopoly,	BB/OHP/PP	1
33				Analysis Time classification perfect competition price and output determination	BB/OHP/PP	1

34				Price det. in case of industry with increasing, decreasing and constant cost.	BB/OHP/PP	1
35				Price & Output det. both in SR-LR, for Firm & Industry in perfect comp	BB/OHP/PP	1
36				Price & Output det. both in SR-LR, for Firm & Industry in monopoly	BB/OHP/PP	1
37				Price & Output det. both in SR-LR, for Firm & Group in monopolistic comp.	BB/OHP/PP	1
38				Meaning of price, objectives and situations & Methods of price fixing.	BB/OHP/PP	1
39				Meaning, objectives, features & Types of business organisation	BB/OHP/PP	1
40				Scale for assessing any form of business organisation	BB/OHP/PP	1
41				Features, merits and demerits of Sole Tradership form of business organ .	BB/OHP/PP	1
42				Discussion Class	BB/OHP/PP	1
43				Tutorial Class	BB/OHP/PP	1
44				Features, merits and demerits of Partnership form of business organisation.	BB/OHP/PP	1
45				Features, merits and demerits of JSC(Pvt & Pub) form of business organ	BB/OHP/PP	1
46				Features, contents of MOA & AOA.	BB/OHP/PP	1
47				Procedure for IPO(Public Issue Management)	BB/OHP/PP	1
48				Features, merits and demerits of Departmental Undertakings/PSUs.	BB/OHP/PP	1
49				Introduction to Capital, meaning, types of capital and determinants of Capital	BB/OHP/PP	1
50				Meaning of Working capital, Estimating WC & Factors influencing WC	BB/OHP/PP	1
51				Discussion Class	BB/OHP/PP	1
52				Tutorial Class.	BB/OHP/PP	1
53				Sources and Methods of raising Working & Fixed Capital	BB/OHP/PP	1
54				Meaning of Capital Budgeting, Features, Acceptance Rules, Models	BB/OHP/PP	1
55				Features, merits, demerits & Methodology for solving problems under NPV Pay Back.	BB/OHP/PP	1
56				Features, merits, demerits & Methodology for solving problems under IRR	BB/OHP/PP	1
57				Meaning, concept, definition of accounting, functions, scope & application	BB/OHP/PP	1
58				Accounting concepts & conventions	BB/OHP/PP	1
59				Difference between single and double entry book keeping.	BB/OHP/PP	1
60				Discussion Class).	BB/OHP/PP	1
61				Tutorial Class	BB/OHP/PP	1
62				Meaning, concept, format, uses of Journal and practicing problems in journal.	BB/OHP/PP	1
63				Meaning, concept, format, uses of Ledgers and problems in Ledger	BB/OHP/PP	1
64				Meaning, concept, format, uses of TB practicing problems in TB	BB/OHP/PP	1
65				concept & Formats of Manufacturing, Trading, P&LA/c., B/S	BB/OHP/PP	1
66				Discussion Class	BB/OHP/PP	1
67				Tutorial class	BB/OHP/PP	1
68				Practicing simple problems with adjustments in Final Accounts .	BB/OHP/PP	1
69				Meaning, concept, definition, formula, importance, uses, limitations & Types of ratios	BB/OHP/PP	1
70				Computation, Analysis, Interpretation of Liquidity Ratios(CR/QR/CR/WCR).	BB/OHP/PP	1
71				Discussion Class	BB/OHP/PP	1
72				Tutorial class Financial Analysis by using news available in Balance Sheet & news papers	BB/OHP/PP	1
73				Computation, Analysis, Interpretation of Leverage Ratios(DE/FPR/PR/LR	BB/OHP/PP	1
74				Analysis, Interpretation of Coverage Ratios(ICR/DSCR).	BB/OHP/PP	1
75				Computation, Analysis, Interpretation of Activity Ratios	BB/OHP/PP	1
76				Computation, Analysis, Interpretation of Turnover & Profitability Ratios	BB/OHP/PP	1
77				Discussion Class	BB/OHP/PP	
78			UI(AT)	Engineering Applications to ME & Real life Estimation of Market	BB/OHP/PP	
79			U2(AT)	Estimating reasons for sales variations & use of Forecasting Methods	BB/OHP/PP	
80			U3(AT)	Discussion Class		
81			U4(AT)	Tutorial Class		
82			U5(AT)	Estimating Capacities(Ideal, operating, attainable, installed, License & Reg/)	BB/OHP/PP	
83			U6(AT)	Estimations of No Profit & No Loss with cash & production BEP	BB/OHP/PP	
84			U7(AT)	Existing Licensing Procedure for AP State Licensing & Notified Areas, SEZ	BB/OHP/PP	
85			U8(AT)	). Long Term Capital Expenditure Planning & New Project Development	BB/OHP/PP	
86				Discussion Class		
87				Use of Latest software’s for MIS Reporting		
88			U8(AT)	Reporting use of Accounting Reports Financial Analysis by using news available in Balance Sheet & news papers		
89				Revision		

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Geethanjali College of Engineering & Technology						
Department of Management Studies						
Micro Plan::MEFA III-B.Tech(IT)-B Section-Ms. APS Jyothi						
No	Date	Day	Unit	Topic Description	Aids	Period
1				Concepts of Managerial Economics, Mgt., Economics, Nature Characteristics	BB/OP	1
2				Managerial Economics, Scope, Significance & Use	BB/OP	1
3				Fundamental Concepts of Managerial Economics	BB/OP	1
4				Scope & Consumer behaviour introduction to indifference curves	BB/OP	1
5				Inter-relationship with other disciplines	BB/OP	1
6				Role & Responsibilities and Model-Building in Managerial Economics	BB/OP	1
7				Concept, functions, assumptions, properties, Limitations & Graph of Demand	BB/OP	1
8				Distinctions of demand	BB/OP	1
9				Meaning, importance, Types, graph and formula for Elasticity of Demand	BB/OP	1
10				Methods of Measuring Elasticity, point & arc elasticity's & factors infl.	BB/OP	1
11				Price & Income Elasticity of Demand	BB/OP	1
12				Advertisement & Cross Elasticity of Demand	BB/OP	1
13				Factors Influencing Demand	BB/OP	1
14				Meaning, importance, steps, uses and limitations of demand forecasting	BB/OP	1
15				Methods of Demand forecasting(Qualitative & Quantitative)	BB/OP	1
16				Meaning, Use, Limitations, Assumptions & types of production functions	BB/OP	1
17				Production function with one variable inputs(LVP/ROS)	BB/OP	1
18				Production function with two variable inputs(MRTS/PE/LCIOC)	BB/OP	1
19				Production function with all variable inputs(RTS)	BB/OP	1
20				Economies of Scale of Production(Internal/External/SR-LR/SS-LS)	BB/OP	1
21				Meaning, concept, importance and types of costs & Cost Behaviour Analysis	BB/OP	1
22				Introduction to BEP, assumption, limitations and uses	BB/OP	1
23				Practicing problems in BEP with different models	BB/OP	1
24				Meaning, concept, types of markets & market Structures.	BB/OP	1
25				Features of perfect, monopoly, monopolistic, oligopoly, duopoly,	BB/OP	1
26				Time classification perfect competition price and output determination in	BB/OP	1
27				Price det. in case of industry with increasing, decreasing and constant cost.	BB/OP	1
28				Price & Output det. both in SR-LR, for Firm & Industry in perfect comp.	BB/OP	1
29				Price & Output det. both in SR-LR, for Firm & Industry in monopoly comp.	BB/OP	1
30				Price & Output det. both in SR-LR, for Firm & Group in monopolistic comp.	BB/OP	1
31				Meaning of price, objectives and situations & Methods of price fixing.	BB/OP	1
32				Meaning, objectives, features & Types of business organisation	BB/OP/PP	1
33				Scale for assessing any form of business organisation	BB/OP/PP	1
34				Features, merits and demerits of Sole Tradership form of business organ	BB/OP/PP	1
35				Features, merits and demerits of Partnership form of business organisation.	BB/OP/PP	1
36				Features, merits and demerits of Cooperative Society.	BB/OP/PP	1
37				Features, merits and demerits of HUF.	BB/OP/PP	1
38				Features, merits and demerits of JSC(Pvt & Pub) form of business organ	BB/OP/PP	1
39				Features, contents of MOA & AOA.	BB/OP/PP	1
40				Procedure for IPO(Public Issue Management)	BB/OP/PP	1
41				Features, merits and demerits of Departmental Undertakings/PSUs.	BB/OP/PP	1
42				Introduction to Capital, meaning, types of capital and determinants of Capital	BB/OP/PP	1
43				Meaning of Working capital, Estimating WC & Factors influencing WC	BB/OP/PP	1
44				Sources and Methods of raising Working & Fixed Capital	BB/OP/PP	1
45				Meaning of Capital Budgeting, Features, Acceptance Rules, Models	BB/OP/PP	1
46				Features, merits, demerits & Methodology for solving problems Pay Back	BB/OP/PP	1
47				Features, merits, demerits & Methodology for solving problems under ARR	BB/OP/PP	1
48				Features, merits, demerits & Methodology for solving problems under PI	BB/OP/PP	1
49				Features, merits, demerits & Methodology for solving problems under	BB/OP/PP	1

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				NPV		
50				Features, merits, demerits & Methodology for solving problems under IRR	BB/OP/PP	1
51				Meaning, concept, definition of accounting, functions, scope & application	BB/OP/PP	1
52				Accounting concepts & conventions.	BB/OP/PP	1
53				Difference between single and double entry book keeping.	BB/OP/PP	1
54				Meaning, concept, format, uses of Journal and practicing problems in journal.	BB/OP/PP	1
55				Meaning, concept, format, uses of Ledgers and problems in Ledger.	BB/OP/PP	1
56				Meaning, concept, format, uses of TB practicing problems in TB.	BB/OP/PP	1
57				concept & Formats of Manufacturing, Trading, P&LA/c., B/S	BB/OP/PP	1
58				Practicing simple problems with adjustments in Final Accounts.	BB/OP/PP	1
59				Meaning, concept, definition, formula, importance, uses, limitations & Types	BB/OP/PP	1
60				Computation, Analysis, Interpretation of Liquidity Ratios(CR/QR/CR/WCR).	BB/OP/PP	1
61				Computation, Analysis, Interpretation of Leverage Ratios(DE/FPR/PR/LR).	BB/OP/PP	1
62				Computation, Analysis, Interpretation of Coverage Ratios(ICR/DSCR).	BB/OP/PP	1
63				Computation, Analysis, Interpretation of Activity Ratios	BB/OP/PP	1
64				Computation, Analysis, Interpretation of Turnover & Profitability Ratios	BB/OP/PP	1
65			U-1(AT)	Engineering Applications to ME & Real life Estimation of Market	OP/PP	1
66			U-2(AT)	Estimating reasons for sales variations & use of Forecasting Methods	OP/PP	1
67			U-3(AT)	Estimating Capacities(Ideal, operating, attainable, installed, License & Reg/)	OP/PP	1
68			U-4(AT)	Estimations of No Profit & No Loss with cash & production BEP	OP/PP	1
69			U-5(AT)	Existing Licensing Procedure for AP State Licensing & Notified Areas, SEZ	OP/PP	1
70			U-6(AT)	Long Term Capital Expenditure Planning & New Project Development	OP/PP	1
71			U-7(AT)	Use of Latest software's for MIS Reporting use of Accounting Reports	OP/PP	1
72			U-8(AT)	Financial Analysis by using news available in Balance Sheet & news papers	OP/PP	1

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14. Detailed Notes

Geethanjali College Of Engineering & Technology
Department Of Management Studies
Managerial Economics & Financial Analysis
Academic Year 2013-14

INTRODUCTION TO MANAGERIAL ECONOMICS

Imagine for a while that you have finished your studies and have joined as an engineer in a manufacturing organization. What do you do there? You plan to produce maximum quantity of goods of a given quality at a reasonable cost. On the other hand, if you are a sale manager, you have to sell a maximum amount of goods with minimum advertisement costs. In other words, you want to minimize your costs and maximize your returns and by doing so, you are practicing the principles of managerial economics.

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Managers, in their day-to-day activities, are always confronted with several issues such as how much quantity is to be supplied; at what price; should the product be made internally; or whether it should be bought from outside; how much quantity is to be produced to make a given amount of profit and so on. Managerial economics provides us a basic insight into seeking solutions for managerial problems.

Managerial economics, as the name itself implies, is an offshoot of two distinct disciplines: Economics and Management. In other words, it is necessary to understand what these disciplines are, at least in brief, to understand the nature and scope of managerial economics.

Introduction to Economics

Economics is a study of human activity both at individual and national level. The economists of early age treated economics merely as the science of wealth. The reason for this is clear. Every one of us in involved in efforts aimed at earning money and spending this money to satisfy our wants such as food, Clothing, shelter, and others. Such activities of earning and spending money are called
"Economic activities". It was only during the eighteenth century that Adam Smith, the Father of Economics, defined economics as the study of nature and uses of national wealth'.

Dr. Alfred Marshall, one of the greatest economists of the nineteenth century, writes "Economics is a study of man's actions in the ordinary business of life: it enquires how he gets his income and how he uses it". Thus, it is one side, a study of wealth; and on the other, and more important side; it is the study of man. As Marshall observed, the chief aim of economics is to promote 'human welfare', but not wealth. The definition given by AC Pigou endorses the opinion of Marshall. Pigou defines Economics as "the study of economic welfare that can be brought directly and indirectly, into relationship with the measuring rod of money".
Prof. Lionel Robbins defined Economics as "the science, which studies human behaviour as a relationship between ends and scarce means which have alternative uses". With this, the focus of economics shifted from 'wealth' to human behaviour'.
Lord Keynes defined economics as 'the study of the administration of scarce means and the determinants of employments and income".

Microeconomics

The study of an individual consumer or a firm is called microeconomics (also called the *Theory of Firm*). Micro means 'one millionth'. Microeconomics deals with behavior and problems of single individual and of micro organization. Managerial economics has its roots in microeconomics and it deals with the micro or individual enterprises. It is concerned with the application of the concepts such as price theory, Law of Demand and theories of market structure and so on.

Macroeconomics

The study of 'aggregate' or total level of economics activity in a country is called *macroeconomics*. It studies the flow of economics resources or factors of production (such as land, labour, capital, organisation and technology) from the resource owner to the business firms and then from the business firms to the households. It deals with total aggregates, for instance, total national income total employment, output and total investment. It studies the interrelations among various aggregates and examines their nature and behaviour, their determination and causes of fluctuations in the. It deals with the price level in general, instead of studying the prices of individual commodities. It is concerned with the level of employment in the economy. It discusses aggregate consumption, aggregate investment, price level, and payment, theories of employment, and so on.
Though macroeconomics provides the necessary framework in term of government policies etc., for the firm to act upon dealing with analysis of business conditions, it has less direct relevance in the study of theory of firm.

Management

Management is the science and art of getting things done through people in formally organized groups. It is necessary that every organisation be well managed to enable it to achieve its desired goals. Management includes a number of functions: *Planning, organizing, staffing, directing, and controlling*. The manager while directing the efforts of his staff *communicates* to them the goals, objectives, policies, and procedures; *coordinates* their efforts; *motivates* them to sustain their enthusiasm; and *leads* them to achieve the corporate goals.

Welfare Economics

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Welfare economics is that branch of economics, which primarily deals with taking of poverty, famine and distribution of wealth in an economy. This is also called *Development Economics*. The central focus of welfare economics is to assess how well things are going for the members of the society. If certain things have gone terribly bad in some situation, it is necessary to explain why things have gone wrong. Prof. Amartya Sen was awarded the Nobel Prize in Economics in 1998 in recognition of his contributions to welfare economics. Prof. Sen gained recognition for his studies of the 1974 famine in Bangladesh. His work has challenged the common view that food shortage is the major cause of famine.

In the words of Prof. Sen, famines can occur even when the food supply is high but people cannot buy the food because they don't have money. There has never been a famine in a democratic country because leaders of those nations are spurred into action by politics and free media. In undemocratic countries, the rulers are unaffected by famine and there is no one to hold them accountable, even when millions die.

Welfare economics takes care of what managerial economics tends to ignore. In other words, the growth for an economic growth with societal upliftment is countered productive. In times of crisis, what comes to the rescue of people is their won literacy, public health facilities, a system of food distribution, stable democracy, social safety, (that is, systems or policies that take care of people when things go wrong for one reason or other).

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Managerial Economics

Introduction

Managerial Economics as a subject gained popularity in USA after the publication of the book "Managerial Economics" by Joel Dean in 1951.

Managerial Economics refers to the firm's decision making process. It could be also interpreted as "Economics of Management" or "Economics of Management". Managerial Economics is also called as "Industrial Economics" or "Business Economics".

As Joel Dean observes managerial economics shows how economic analysis can be used in formulating polices.

Meaning & Definition:

In the words of E. F. Brigham and J. L. Pappas Managerial Economics is "the applications of economics theory and methodology to business administration practice".

Managerial Economics bridges the gap between traditional economics theory and real business practices in two days. First it provides a number of tools and techniques to enable the manager to become more competent to take

decisions in real and practical situations. Secondly it serves as an integrating course to show the interaction between various areas in which the firm operates.

C. I. Savage & T. R. Small therefore believes that managerial economics "is concerned with business efficiency".

M. H. Spencer and Louis Siegelman explain the "Managerial Economics is the integration of economic theory with business practice for the purpose of facilitating decision making and forward planning by management".

It is clear, therefore, that managerial economics deals with economic aspects of managerial decisions of with those managerial decisions, which have an economics contest. Managerial economics may therefore, be defined as a body of knowledge, techniques and practices which give substance to those economic concepts which are useful in deciding the business strategy of a unit of management.

Managerial economics is designed to provide a rigorous treatment of those aspects of economic theory and analysis that are most use for managerial decision analysis says J. L. Pappas and E. F. Brigham.

Managerial Economics, therefore, focuses on those tools and techniques, which are useful in decision-making.

Nature of Managerial Economics

Managerial economics is, perhaps, the youngest of all the social sciences. Since it originates from Economics, it has the basis features of economics, such as assuming that other things remaining the same (or the Latin equivalent ceteris paribus). This assumption is made to simplify the complexity of the managerial phenomenon under study in a dynamic business environment so many things are changing simultaneously. This set a limitation that we cannot really hold other things remaining the same. In such a case, the observations made out of such a study will have a limited purpose or value. Managerial economics also has inherited this problem from economics.

Further, it is assumed that the firm or the buyer acts in a rational manner (which normally does not happen). The buyer is carried away by the advertisements, brand loyalties, incentives and so on, and, therefore, the innate behaviour of the consumer will be rational is not a realistic assumption. Unfortunately, there are no other alternatives to understand the subject other than by making such assumptions. This is because the behaviour of a firm or a consumer is a complex phenomenon.

The other features of managerial economics are explained as below:

- ***(a) Close to microeconomics*: Managerial economics is concerned with finding the solutions for different managerial problems of a particular firm. Thus, it is more close to microeconomics.**
- ***(b) Operates against the backdrop of macroeconomics*: The macroeconomics conditions of the economy are also seen as limiting factors for the firm to operate. In other words, the managerial economist has to be aware of the limits set by the macroeconomics conditions such as government industrial policy, inflation and so on.**
- ***(c) Normative statements*: A normative statement usually includes or implies the words 'ought' or 'should'. They reflect people's moral attitudes and are expressions of what a team of people ought to do. For instance, it deals with statements such as 'Government of India should open up the economy. Such statement are based on value judgments and express views of what is 'good' or 'bad', 'right' or ' wrong'. One problem with normative statements is that they cannot to verify by looking at the facts, because they mostly deal with the future. Disagreements about such statements are usually settled by voting on them.**
- ***(d) Prescriptive actions*: Prescriptive action is goal oriented. Given a problem and the objectives of the firm, it suggests the course of action from the available alternatives for optimal solution. If does not merely mention the concept, it also explains whether the concept can be applied in a given context on not. For instance, the fact that variable costs are marginal costs can be used to judge the feasibility of an export order.**
- ***(e) Applied in nature*: 'Models' are built to reflect the real life complex business situations and these models are of immense help to managers for decision-making. The different areas where models are extensively used include inventory control, optimization, project management etc. In managerial economics, we also employ case study methods to conceptualize the problem, identify that alternative and determine the best course of action.**
- ***(f) Offers scope to evaluate each alternative*: Managerial economics provides an opportunity to evaluate each alternative in terms of its costs and revenue. The managerial economist can decide which is the better alternative to maximize the profits for the firm.**
- ***(g) Interdisciplinary*: The contents, tools and techniques of managerial economics are drawn from different subjects such as economics, management, mathematics, statistics, accountancy, psychology, organizational behavior, sociology and etc.**

(h) *Assumptions and limitations*: **Every concept and theory of managerial economics is based on certain assumption and as such their validity is not universal. Where there is change in assumptions, the theory may not hold good at all.**

Scope of Managerial Economics:

The scope of managerial economics refers to its area of study. Managerial economics refers to its area of study. Managerial economics, Provides management with a strategic planning tool that can be used to get a clear perspective of the way the business world works and what can be done to maintain profitability in an ever-changing environment. Managerial economics is primarily concerned with the application of economic principles and theories to five types of resource decisions made by all types of business organizations.

a. **The selection of product or service to be produced.**
b. **The choice of production methods and resource combinations.**
c. **The determination of the best price and quantity combination**
d. **Promotional strategy and activities.**
e. **The selection of the location from which to produce and sell goods or service to consumer.**

The production department, marketing and sales department and the finance department usually handle these five types of decisions.
The scope of managerial economics covers two areas of decision making

a. **Operational or Internal issues**
b. **Environmental or External issues**

a. Operational issues:
Operational issues refer to those, which wise within the business organization and they are under the control of the management. Those are:

1. **Theory of demand and Demand Forecasting**
2. **Pricing and Competitive strategy**
3. **Production cost analysis**
4. **Resource allocation**
5. **Profit analysis**
6. **Capital or Investment analysis**
7. **Strategic planning**

1. Demand Analyses and Forecasting:
A firm can survive only if it is able to the demand for its product at the right time, within the right quantity. Understanding the basic concepts of demand is essential for demand forecasting. Demand analysis should be a basic activity of the firm because many of the other activities of the firms depend upon the outcome of the demand fore cost. Demand analysis provides:

1. **The basis for analyzing market influences on the firms; products and thus helps in the adaptation to those influences.**
2. **Demand analysis also highlights for factors, which influence the demand for a product. This helps to manipulate demand. Thus demand analysis studies not only the price elasticity but also income elasticity, cross elasticity as well as the influence of advertising expenditure with the advent of computers, demand forecasting has become an increasingly important function of managerial economics.**

2. Pricing and competitive strategy:
Pricing decisions have been always within the preview of managerial economics. Pricing policies are merely a subset of broader class of managerial economic problems. Price theory helps to explain how prices are determined under different types of market conditions. Competitions analysis includes the anticipation of the response of competitions the firm's pricing, advertising and marketing strategies. Product line pricing and price forecasting occupy an important place here.
3. Production and cost analysis:

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Production analysis is in physical terms. While the cost analysis is in monetary terms cost concepts and classifications, cost-out-put relationships, economies and diseconomies of scale and production functions are some of the points constituting cost and production analysis.

4. Resource Allocation:

Managerial Economics is the traditional economic theory that is concerned with the problem of optimum allocation of scarce resources. Marginal analysis is applied to the problem of determining the level of output, which maximizes profit. In this respect linear programming techniques has been used to solve optimization problems. In fact lines programming is one of the most practical and powerful managerial decision making tools currently available.

5. Profit analysis:

Profit making is the major goal of firms. There are several constraints here an account of competition from other products, changing input prices and changing business environment hence in spite of careful planning, there is always certain risk involved. Managerial economics deals with techniques of averting of minimizing risks. Profit theory guides in the measurement and management of profit, in calculating the pure return on capital, besides future profit planning.

6. Capital or investment analyses:

Capital is the foundation of business. Lack of capital may result in small size of operations. Availability of capital from various sources like equity capital, institutional finance etc. may help to undertake large-scale operations. Hence efficient allocation and management of capital is one of the most important tasks of the managers. The major issues related to capital analysis are:

1. **The choice of investment project**
2. **Evaluation of the efficiency of capital**
3. **Most efficient allocation of capital**

Knowledge of capital theory can help very much in taking investment decisions. This involves, capital budgeting, feasibility studies, analysis of cost of capital etc.

7. Strategic planning:

Strategic planning provides management with a framework on which long-term decisions can be made which has an impact on the behavior of the firm. The firm sets certain long-term goals and objectives and selects the strategies to achieve the same. Strategic planning is now a new addition to the scope of managerial economics with the emergence of multinational corporations. The perspective of strategic planning is global.

It is in contrast to project planning which focuses on a specific project or activity. In fact the integration of managerial economics and strategic planning has given rise to be new area of study called corporate economics.

B. Environmental or External Issues:

An environmental issue in managerial economics refers to the general business environment in which the firm operates. They refer to general economic, social and political atmosphere within which the firm operates. A study of economic environment should include:

a. **The type of economic system in the country.**
b. **The general trends in production, employment, income, prices, saving and investment.**
c. **Trends in the working of financial institutions like banks, financial corporations, insurance companies**
d. **Magnitude and trends in foreign trade;**
e. **Trends in labour and capital markets;**
f. **Government's economic policies viz. industrial policy monetary policy, fiscal policy, price policy etc.**

The social environment refers to social structure as well as social organization like trade unions, consumer's co-operative etc. The Political environment refers to the nature of state activity, chiefly states' attitude towards private business, political stability etc.

The environmental issues highlight the social objective of a firm i.e.; the firm owes a responsibility to the society. Private gains of the firm alone cannot be the goal.

The environmental or external issues relate managerial economics to macro economic theory while operational issues relate the scope to micro economic theory. The scope of managerial economics is ever widening with the dynamic role of big firms in a society.

Managerial economics relationship with other disciplines:

Many new subjects have evolved in recent years due to the interaction among basic disciplines. While there are many such new subjects in natural and social sciences, managerial economics can be taken as the best example of

such a phenomenon among social sciences. Hence it is necessary to trace its roots and relation ship with other disciplines.

1. Relationship with economics:

The relationship between managerial economics and economics theory may be viewed form the point of view of the two approaches to the subject Viz. Micro Economics and Marco Economics. Microeconomics is the study of the economic behavior of individuals, firms and other such micro organizations. Managerial economics is rooted in Micro Economic theory. Managerial Economics makes use to several Micro Economic concepts such as marginal cost, marginal revenue, elasticity of demand as well as price theory and theories of market structure to name only a few. Macro theory on the other hand is the study of the economy as a whole. It deals with the analysis of national income, the level of employment, general price level, consumption and investment in the economy and even matters related to international trade, Money, public finance, etc.

The relationship between managerial economics and economics theory is like that of engineering science to physics or of medicine to biology. Managerial economics has an applied bias and its wider scope lies in applying economic theory to solve real life problems of enterprises. Both managerial economics and economics deal with problems of scarcity and resource allocation.

2. Management theory and accounting:

Managerial economics has been influenced by the developments in management theory and accounting techniques. Accounting refers to the recording of pecuniary transactions of the firm in certain books. A proper knowledge of accounting techniques is very essential for the success of the firm because profit maximization is the major objective of the firm.

Managerial Economics requires a proper knowledge of cost and revenue information and their classification. A student of managerial economics should be familiar with the generation, interpretation and use of accounting data. The focus of accounting within the firm is fast changing from the concepts of store keeping to that if managerial decision making, this has resulted in a new specialized area of study called "Managerial Accounting".

3. Managerial Economics and mathematics:

The use of mathematics is significant for managerial economics in view of its profit maximization goal long with optional use of resources. The major problem of the firm is how to minimize cost, hoe to maximize profit or how to optimize sales. Mathematical concepts and techniques are widely used in economic logic to solve these problems. Also mathematical methods help to estimate and predict the economic factors for decision making and forward planning.

Mathematical symbols are more convenient to handle and understand various concepts like incremental cost, elasticity of demand etc., Geometry, Algebra and calculus are the major branches of mathematics which are of use in managerial economics. The main concepts of mathematics like logarithms, and exponentials, vectors and determinants, input-output models etc., are widely used. Besides these usual tools, more advanced techniques designed in the recent years viz. linear programming, inventory models and game theory fine wide application in managerial economics.

4. Managerial Economics and Statistics:

Managerial Economics needs the tools of statistics in more than one way. A successful businessman must correctly estimate the demand for his product. He should be able to analyses the impact of variations in tastes. Fashion and changes in income on demand only then he can adjust his output. Statistical methods provide and sure base for decision-making. Thus statistical tools are used in collecting data and analyzing them to help in the decision making process.Statistical tools like the theory of probability and forecasting techniques help the firm to predict the future course of events. Managerial Economics also make use of correlation and multiple regressions in related variables like price and demand to estimate the extent of dependence of one variable on the other. The theory of probability is very useful in problems involving uncertainty.

5. Managerial Economics and Operations Research:

Taking effectives decisions is the major concern of both managerial economics and operations research. The development of techniques and concepts such as linear programming, inventory models and game theory is due to the development of this new subject of operations research in the postwar years. Operations research is concerned with the complex problems arising out of the management of men, machines, materials and money.

Operation research provides a scientific model of the system and it helps managerial economists in the field of product development, material management, and inventory control, quality control, marketing and demand analysis. The varied tools of operations Research are helpful to managerial economists in decision-making.

6. Managerial Economics and the theory of Decision- making:

The Theory of decision-making is a new field of knowledge grown in the second half of this century. Most of the economic theories explain a single goal for the consumer i.e., Profit maximization for the firm. But the theory of decision-making is developed to explain multiplicity of goals and lot of uncertainty.

As such this new branch of knowledge is useful to business firms, which have to take quick decision in the case of multiple goals. Viewed this way the theory of decision making is more practical and application oriented than the economic theories.

7. Managerial Economics and Computer Science:

Computers have changes the way of the world functions and economic or business activity is no exception. Computers are used in data and accounts maintenance, inventory and stock controls and supply and demand predictions. What used to take days and months is done in a few minutes or hours by the computers. In fact computerization of business activities on a large scale has reduced the workload of managerial personnel. In most countries a basic knowledge of computer science, is a compulsory programme for managerial trainees.

To conclude, managerial economics, which is an offshoot traditional economics, has gained strength to be a separate branch of knowledge. It strength lies in its ability to integrate ideas from various specialized subjects to gain a proper perspective for decision-making.

A successful managerial economist must be a mathematician, a statistician and an economist. He must be also able to combine philosophic methods with historical methods to get the right perspective only then; he will be good at predictions. In short managerial practices with the help of other allied sciences.

THE ROLE OF MANAGERIAL ECONOMIST

Making decisions and processing information are the two primary tasks of the managers. Managerial economists have gained importance in recent years with the emergence of an organizational culture in production and sales activities.

A management economist with sound knowledge of theory and analytical tools for information system occupies a prestigious place among the personnel. A managerial economist is nearer to the policy-making. Equipped with specialized skills and modern techniques he analyses the internal and external operations of the firm. He evaluates and helps in decision making regarding sales, Pricing financial issues, labour relations and profitability. He helps in decision-making keeping in view the different goals of the firm.

His role in decision-making applies to routine affairs such as price fixation, improvement in quality, Location of plant, expansion or contraction of output etc. The role of managerial economist in internal management covers wide areas of production, sales and inventory schedules of the firm.

The most important role of the managerial economist relates to demand forecasting because an analysis of general business conditions is most vital for the success of the firm. He prepares a short-term forecast of general business activity and relates general economic forecasts to specific market trends. Most firms require two forecasts one covering the short term (for nest three months to one year) and the other covering the long term, which represents any period exceeding one-year. He has to be ever alert to gauge the changes in tastes and preferences of the consumers. He should evaluate the market potential. The need to know forecasting techniques on the part of the managerial economics means, he should be adept at market research. The purpose of market research is to provide a firm with information about current market position as well as present and possible future trends in the industry. A managerial economist who is well equipped with this knowledge can help the firm to plan product improvement, new product policy, pricing, and sales promotion strategy.

The fourth function of the managerial economist is to undertake an economic analysis of the industry. This is concerned with project evaluation and feasibility study at the firm level i.e., he should be able to judge on the basis of cost benefit analysis, whether it is advisable and profitable to go ahead with the project. The managerial economist should be adept at investment appraisal methods. At the external level, economic analysis involves the knowledge of competition involved, possibility of internal and foreign sales, the general business climate etc.

Another function is security management analysis. This is very important in the case of defense-oriented industries, power projects, and nuclear plants where security is very essential. Security management means, also that the production and trade secrets concerning technology, quality and other such related facts should not be leaked out to others. This security is more necessary in strategic and defense-oriented projects of national importance; a managerial economist should be able to manage these issues of security management analysis.

The sixth function is an advisory function. Here his advice is required on all matters of production and trade. In the hierarchy of management, a managerial economist ranks next to the top executives or the policy maker who may be doyens of several projects. It is the managerial economist of each firm who has to advise them on all matters of trade since they are in the know of actual functioning of the unit in all aspects, both technical and financial.

Another function of importance for the managerial economist is a concerned with pricing and related problems. The success of the firm depends upon a proper pricing strategy. The pricing decision is one of the most difficult decisions to be made in business because the information required is never fully available. Pricing of established products is different from new products. He may have to operate in an atmosphere constrained by government regulation. He

may have to anticipate the reactions of competitors in pricing. The managerial economist has to be very alert and dynamic to take correct pricing decision in changing environment.

Finally the specific function of a managerial economist includes an analysis of environment issues. Modern theory of managerial economics recognizes the social responsibility of the firm. It refers to the impact of a firm on environmental factors. It should not have adverse impact on pollution and if possible try to contribute to environmental preservation and protection in a positive way.

The role of management economist lies not in taking decision but in analyzing, concluding and recommending to the policy maker. He should have the freedom to operate and analyze and must possess full knowledge of facts. He has to collect and provide the quantitative data from within the firm. He has to get information on external business environment such as general market conditions, trade cycles, and behavior pattern of the consumers. The managerial economist helps to co-ordinate policies relating to production, investment, inventories and price.

He should have equanimity to meet crisis. He should act only after analysis and discussion with relevant departments. He should have diplomacy to act in advisory capacity to the top executive as well as getting co-operation from different departments for his economic analysis. He should do well to have intuitive ability to know what is good or bad for the firm.

He should have sound theoretical knowledge to take up the challenges he has to face in actual day to day affairs. “BANMOL” referring to the role of managerial economist points out. “A managerial economist can become a for more helpful member of a management group by virtue of studies of economic analysis, primarily because there he learns to become an effective model builder and because there he acquires a very rich body of tools and techniques which can help to deal with the problems of the firm in a far more rigorous, a far more probing and a far deeper manner”.

QUESTIONS

1. What is managerial economics? Explain its focus on various aspects
2. Point out the importance of managerial economics in decision making
3. What are the contributions and limitations of economic analysis in business decision making
4. Managerial Economics is the discipline which deals with the applications of economic theory to business management discuss.
5. Explain the fundamental concepts of managerial economics
6. Discuss the nature & Scope of Managerial economics
7. Managerial Economics is the study of allocation of resources available to a firm or other unit of management among the activities of that unit explains.
8. Explain the nature of problems studies in managerial economics. What is the importance of the study of such problems in business management?
9. Explain the role and responsibilities of a managerial economics?
10. “Managerial Economics is an integration of economic theory and with business practice for the purpose of facilitating decision making and forward planning” explain.

QUIZ

1. Managerial Economics as a subject gained popularity first in______. ( )
   (a) India (b) Germany (c) U.S.A (d) England

2. When the subject Managerial Economics gained popularity? ( )
   (a) 1950 (b) 1949 (c) 1951 (d) 1952

3. Which subject studies the behavior of the firm in theory and practice? ( )
   (a) Micro Economics (b) Macro Economics
   (c) Managerial Economics (d) Welfare Economics

4. Which subject bridges gap between Economic Theory and Management Practice? ( )
   (a) Welfare Economics (b) Micro Economics
   (c) Managerial Economics (d) Macro Economics

5. Application of Economics for managerial decision-making is called____. ( )
(a) Macro Economics (b) Welfare Economics
(c) Managerial Economics (d) Micro Economics

6. Which areas covered by the subject "Managerial Economics". ( )
(a) Operational issues (b) Environmental issues
(c) Operational & Environmental issues (d) None

7. The relationship between Managerial Economics and Economic Theory is like that of Engineering Science to Physics (or) Medicine to ___________. ( )
(a) Mathematics (b) Economics
(c) Biology (d) Accountancy

8. Making decisions and processing information are the two Primary tasks of the Managers . It was explained by the subject _____________________. ( )
(a) Physics (b) Engineering Science
(c) Managerial Economics (d) Chemistry

9. Managerial Economics is close to_________Economics ( )
(a) National (b) Business (c) Micro (d) Industrial

10. The theory of firm also called as_____________. ( )
(a) Welfare Economics (b) Industrial Economics
(c) Micro Economics (d) None

11. "Any activity aimed at earning or spending money is called ____activity". ( )
(a) Service activity (b) Accounting activity
(c) Economic activity (d) None

Note: Answer is "C" for all the above questions.

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GCET

DEMAND ANALYSIS

Introduction & Meaning:

Demand in common parlance means the desire for an object. But in economics demand is something more than this. According to Stonier and Hague, "Demand in economics means demand backed up by enough money to pay for the goods demanded". This means that the demand becomes effective only it if is backed by the purchasing power in addition to this there must be willingness to buy a commodity.

Thus demand in economics means the desire backed by the willingness to buy a commodity and the purchasing power to pay. In the words of "Benham" "The demand for anything at a given price is the amount of it which will be bought per unit of time at that Price". (Thus demand is always at a price for a definite quantity at a specified time.) Thus demand has three essentials – price, quantity demanded and time. Without these, demand has to significance in economics.

LAW of Demand:

Law of demand shows the relation between price and quantity demanded of a commodity in the market. In the words of Marshall, "the amount demand increases with a fall in price and diminishes with a rise in price".

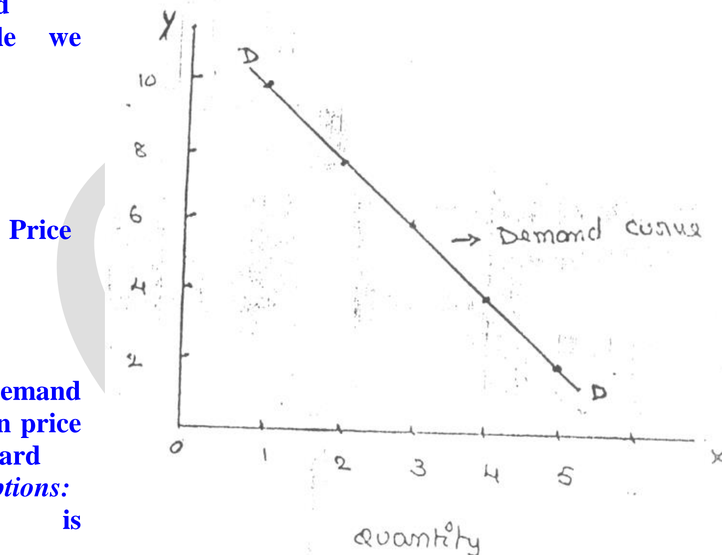
A rise in the price of a commodity is followed by a reduction in demand and a fall in price is followed by an increase in demand, if a condition of demand remains constant.

The law of demand may be explained with the help of the following demand schedule.

Demand Schedule.

Price of Appel (In. Rs.)	Quantity Demanded
10	1
8	2
6	3
4	4
2	5

When the price falls from Rs. 10 to 8 quantity demand increases from 1 to 2. In the same way as price falls, quantity demand increases on the basis of the demand schedule we can draw the demand curve.



The demand curve DD shows the inverse relation between price and quantity demand of apple. It is downward sloping.

Assumptions:

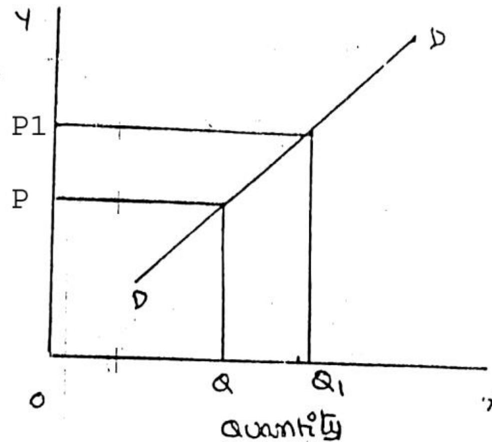
Law is demand is based on certain assumptions:

1. **This is no change in consumers taste and preferences.**
2. **Income should remain constant.**
3. **Prices of other goods should not change.**
4. **There should be no substitute for the commodity**
5. **The commodity should not confer at any distinction**
6. **The demand for the commodity should be continuous**
7. **People should not expect any change in the price of the commodity**

Exceptional demand curve:

Some times the demand curve slopes upwards from left to right. In this case the demand curve has a positive slope.

Price



When price increases from OP to Op1 quantity demanded also increases from to OQ1 and vice versa. The reasons for exceptional demand curve are as follows.

1. Giffen paradox:

The Giffen good or inferior good is an exception to the law of demand. When the price of an inferior good falls, the poor will buy less and vice versa. For example, when the price of maize falls, the poor are willing to spend more on superior goods than on maize if the price of maize increases, he has to increase the quantity of money spent on it. Otherwise he will have to face starvation. Thus a fall in price is followed by reduction in quantity demanded and vice versa. "Giffen" first explained this and therefore it is called as Giffen's paradox.

2. Veblen or Demonstration effect:

'Veblan' has explained the exceptional demand curve through his doctrine of conspicuous consumption. Rich people buy certain good because it gives social distinction or prestige for example diamonds are bought by the richer class for the prestige it possess. It the price of diamonds falls poor also will buy is hence they will not give prestige. Therefore, rich people may stop buying this commodity.

3.Ignorance:

Sometimes, the quality of the commodity is Judge by its price. Consumers think that the product is superior if the price is high. As such they buy more at a higher price.

4. Speculative effect:

If the price of the commodity is increasing the consumers will buy more of it because of the fear that it increase still further, Thus, an increase in price may not be accomplished by a decrease in demand.

5. Fear of shortage:

During the times of emergency of war People may expect shortage of a commodity. At that time, they may buy more at a higher price to keep stocks for the future.

6.Necessaries:

In the case of necessaries like rice, vegetables etc. people buy more even at a higher price.

Factors Affecting Demand:

There are factors on which the demand for a commodity depends. These factors are economic, social as well as political factors. The effect of all the factors on the amount demanded for the commodity is called Demand Function. These factors are as follows:

Price of the Commodity:

The most important factor-affecting amount demanded is the price of the commodity. The amount of a commodity demanded at a particular price is more properly called price demand. The relation between price and demand is called the Law of Demand. It is not only the existing price but also the expected changes in price, which affect demand.

Income of the Consumer:

The second most important factor influencing demand is consumer income. In fact, we can establish a relation between the consumer income and the demand at different levels of income, price and other things remaining the same. The demand for a normal commodity goes up when income rises and falls down when income falls. But in case of Giffen goods the relationship is the opposite.

***Prices of related goods*:**

The demand for a commodity is also affected by the changes in prices of the related goods also. Related goods can be of two types:

(i). Substitutes which can replace each other in use; for example, tea and coffee are substitutes. The change in price of a substitute has effect on a commodity's demand in the same direction in which price changes. The rise in price of coffee shall raise the demand for tea;

(ii). Complementary foods are those which are jointly demanded, such as pen and ink. In such cases complementary goods have opposite relationship between price of one commodity and the amount demanded for the other. If the price of pens goes up, their demand is less as a result of which the demand for ink is also less. The price and demand go in opposite direction. The effect of changes in price of a commodity on amounts demanded of related commodities is called Cross Demand.

Tastes of the Consumers:

The amount demanded also depends on consumer's taste. Tastes include fashion, habit, customs, etc. A consumer's taste is also affected by advertisement. If the taste for a commodity goes up, its amount demanded is more even at the same price. This is called increase in demand. The opposite is called decrease in demand.

Wealth:

The amount demanded of commodity is also affected by the amount of wealth as well as its distribution. The wealthier are the people; higher is the demand for normal commodities. If wealth is more equally distributed, the demand for necessaries and comforts is more. On the other hand, if some people are rich, while the majorities are poor, the demand for luxuries is generally higher.

Population:

Increase in population increases demand for necessaries of life. The composition of population also affects demand. Composition of population means the proportion of young and old and children as well as the ratio of men to women. A change in composition of population has an effect on the nature of demand for different commodities.

Government Policy:

Government policy affects the demands for commodities through taxation. Taxing a commodity increases its price and the demand goes down. Similarly, financial help from the government increases the demand for a commodity while lowering its price.

Expectations regarding the future:

If consumers expect changes in price of commodity in future, they will change the demand at present even when the present price remains the same. Similarly, if consumers expect their incomes to rise in the near future they may increase the demand for a commodity just now.

Climate and weather:

The climate of an area and the weather prevailing there has a decisive effect on consumer's demand. In cold areas woolen cloth is demanded. During hot summer days, ice is very much in demand. On a rainy day, ice cream is not so much demanded.

State of business:

The level of demand for different commodities also depends upon the business conditions in the country. If the country is passing through boom conditions, there will be a marked increase in demand. On the other hand, the level of demand goes down during depression.

UCEH

UNIT - II

ELASTICITY OF DEMAND

Elasticity of demand explains the relationship between a change in price and consequent change in amount demanded. "Marshall" introduced the concept of elasticity of demand. Elasticity of demand shows the extent of change in quantity demanded to a change in price.

In the words of "Marshall", "The elasticity of demand in a market is great or small according as the amount demanded increases much or little for a given fall in the price and diminishes much or little for a given rise in Price"

Elastic demand: A small change in price may lead to a great change in quantity demanded. In this case, demand is elastic.

In-elastic demand: If a big change in price is followed by a small change in demanded then the demand in "inelastic".

Types of Elasticity of Demand:

There are three types of elasticity of demand:

1. **Price elasticity of demand**
2. **Income elasticity of demand**
3. **Cross elasticity of demand**

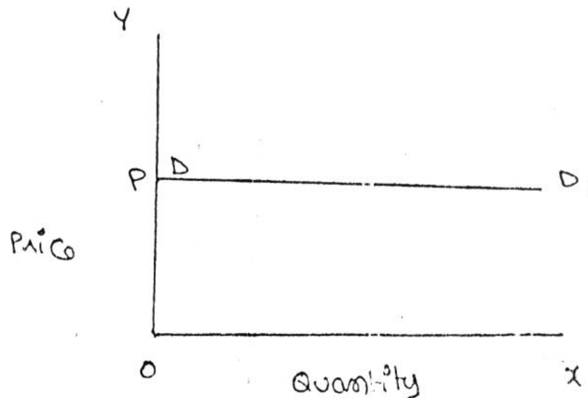
<u>1. Price elasticity of demand:</u>

Marshall was the first economist to define price elasticity of demand. Price elasticity of demand measures changes in quantity demand to a change in Price. It is the ratio of percentage change in quantity demanded to a percentage change in price.

$$\text{Price elasticity} = \frac{\text{Proportionate change in the quantity demand of commodity}}{\text{Proportionate change in the price of commodity}}$$

There are five cases of price elasticity of demand

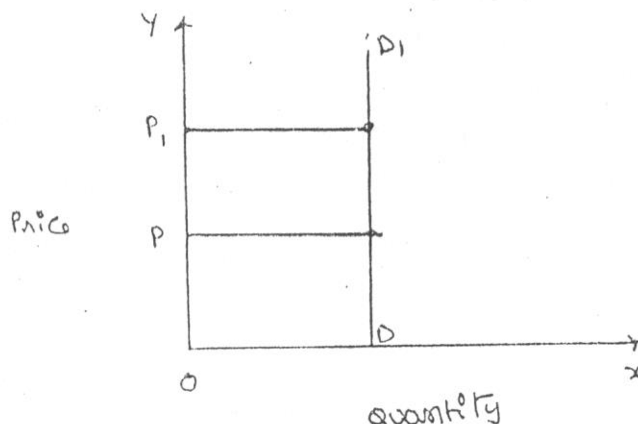
A. Perfectly elastic demand:When small change in price leads to an infinitely large change is quantity demand, it is called perfectly or infinitely elastic demand. In this case E=∞



The demand curve DD1 is horizontal straight line. It shows the at "OP" price any amount is demand and if price increases, the consumer will not purchase the commodity.

B. Perfectly Inelastic Demand

In this case, even a large change in price fails to bring about a change in quantity demanded.



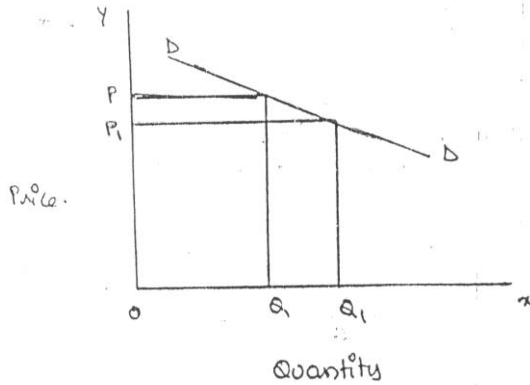
When price increases from 'OP' to 'OP', the quantity demanded remains the same. In other words the response of demand to a change in Price is nil. In this case 'E'=0.

C. Relatively elastic demand:

Demand changes more than proportionately to a change in price. i.e. a small change in price loads to a very big change in the quantity demanded. In this case
E > 1. This demand curve will be flatter.

When price falls crease from "OQ' to price.

D. Relatively in- Quantity demanded change in price. A change in amount will be steeper.

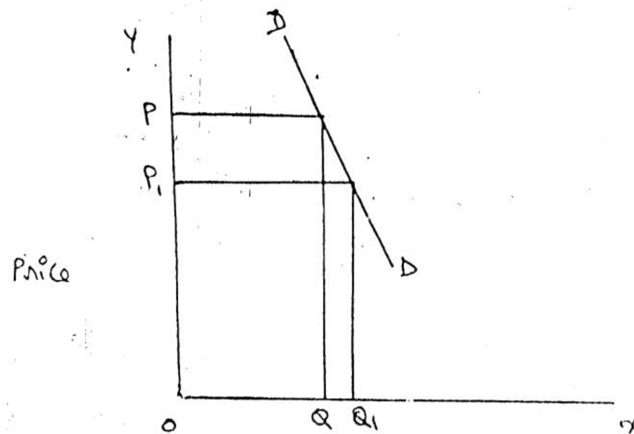


from 'OP' to 'OP', amount demanded in "OQ1' which is larger than the change in

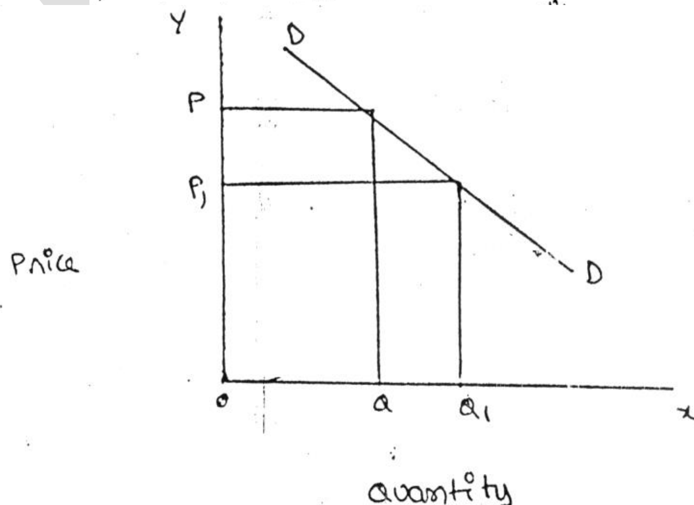
elastic demand.
changes less than proportional to a large change in price leads to small demanded. Here E < 1. Demanded carve

When price falls demanded smaller than the

E. Unit elasticity exactly equal to equal E=1 and



from "OP' to 'OP1 amount increases from OQ to OQ1, which is change in price.
of demand:The change in demand is the change in price. When both are elasticity if said to be unitary.



When

'OP1',
'OQ' to

price falls from 'OP' to 'OP1' quantity demanded increases from 'OP' to quantity demanded increases from 'OQ1'. Thus a change in price has

resulted in an equal change in quantity demanded so price elasticity of demand is equal to unity.

2. Income elasticity of demand:

Income elasticity of demand shows the change in quantity demanded as a result of a change in income. Income elasticity of demand may be slated in the form of a formula.

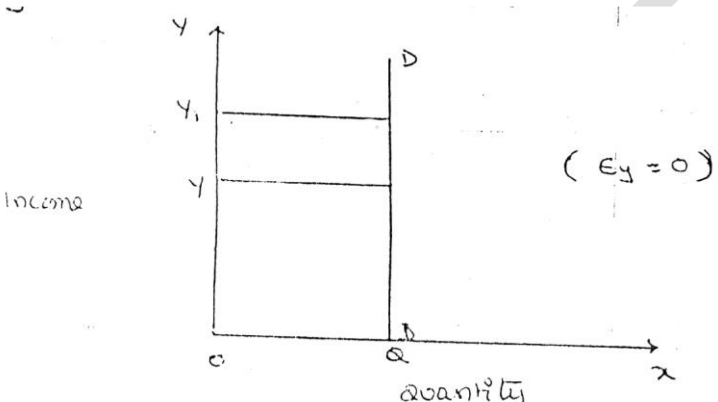
$$\text{Income Elasticity} = \frac{\text{Proportionate change in the quantity demand of commodity}}{\text{Proportionate change in the income of the people}}$$

Income elasticity of demand can be classified in to five types.

A. Zero income elasticity:

B.

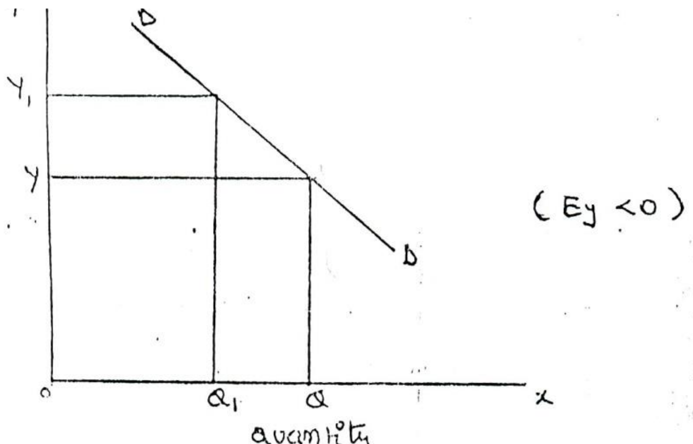
Quantity demanded remains the same, even though money income increases. Symbolically, it can be expressed as Ey=0. It can be depicted in the following way:



As income increases from OY to OY1, quantity demanded never changes.

B. Negative Income elasticity:

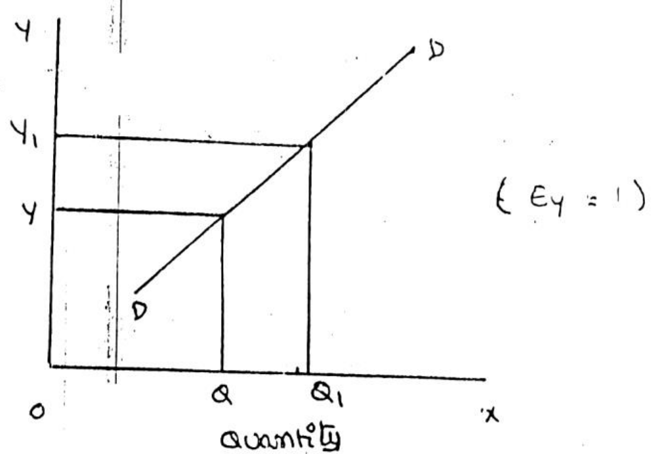
When income increases, quantity demanded falls. In this case, income elasticity of demand is negative. i.e., Ey < 0.



When income increases from OY to OY1, demand falls from OQ to OQ1.

c. Unit income elasticity:

When an increase in income brings about a proportionate increase in quantity demanded, and then income elasticity of demand is equal to one. Ey = 1

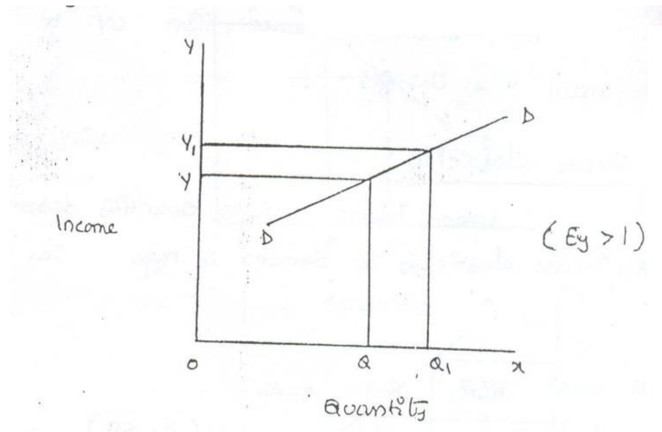


When income increases from OY to OY1, Quantity demanded also increases from OQ to OQ1.

d. Income elasticity greater than unity:

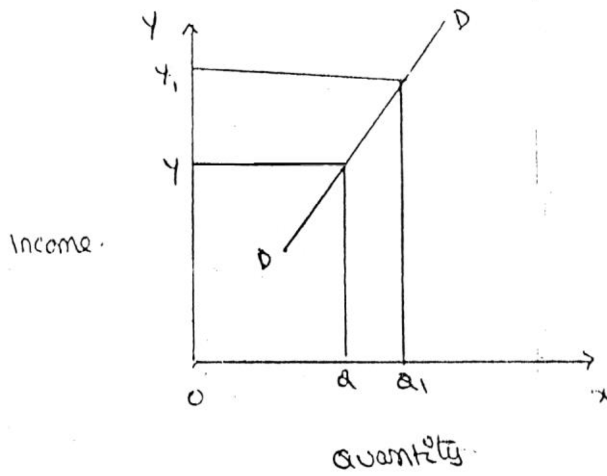
In this case, an increase in come

brings about a more than proportionate increase in quantity demanded. Symbolically it can be written as Ey > 1.



It shows high-income elasticity of demand. When income increases from OY to OY1, Quantity demanded increases from OQ to OQ1.

E. Income elasticity leas than unity:
When income increases quantity demanded also increases but less than proportionately. In this case E < 1.



An increase in income from OY to OY, brings what an increase in quantity demanded from OQ to OQ1, But the increase in quantity demanded is smaller than the increase in income. Hence, income elasticity of demand is less than one.

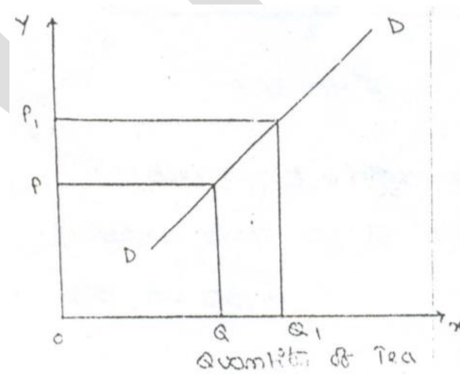
<u>3. Cross elasticity of Demand:</u>

A change in the price of one commodity leads to a change in the quantity demanded of another commodity. This is called a cross elasticity of demand. The formula for cross elasticity of demand is:

$$\text{Cross elasticity} = \frac{\text{Proportionate change in the quantity demand of commodity "X"}}{\text{Proportionate change in the price of commodity "Y"}}$$

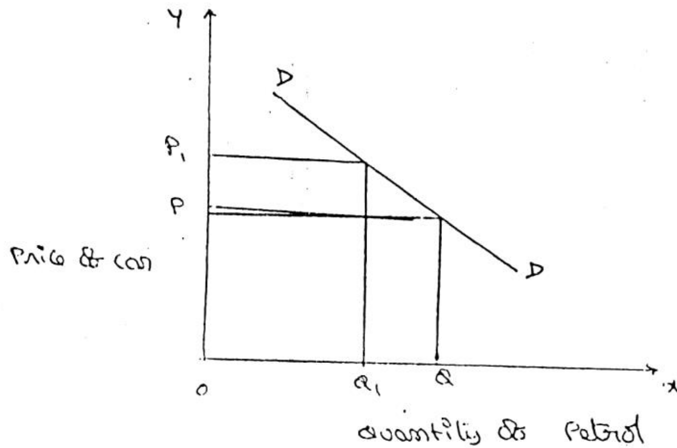
a. In case of substitutes, cross elasticity of demand is positive. Eg: Coffee and Tea
When the price of coffee increases, Quantity demanded of tea increases. Both are substitutes.

Price of Coffee



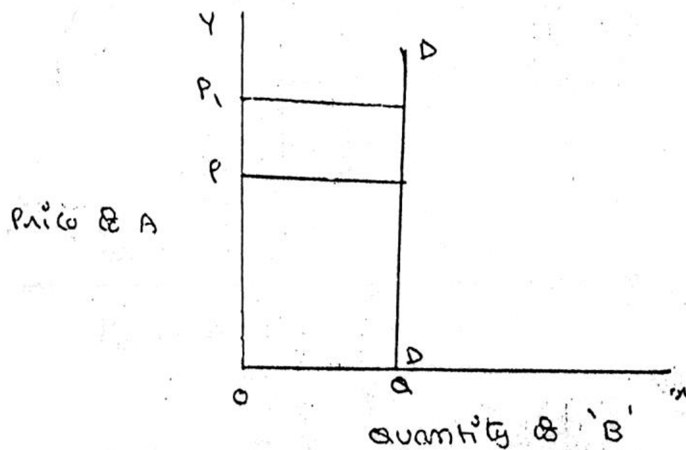
b. Incase of compliments, cross elasticity is negative. If increase in the price of one commodity leads to a decrease in the quantity demanded of another and vice versa.

When price of car goes up from OP to OP!, the quantity demanded of petrol decreases from OQ to OQ!. The cross-demanded curve has negative slope.



$$E_c = \frac{\% QQ_1}{\% PP_1} \text{ (Negative)}$$

c. In case of unrelated commodities, cross elasticity of demanded is zero. A change in the price of one commodity will not affect the quantity demanded of another.



Quantity demanded of commodity "b" remains unchanged due to a change in the price of 'A', as both are unrelated goods.

<u>Factors influencing the elasticity of demand</u>

Elasticity of demand depends on many factors.

1. Nature of commodity:

Elasticity or in-elasticity of demand depends on the nature of the commodity i.e. whether a commodity is a necessity, comfort or luxury, normally; the demand for Necessaries like salt, rice etc is inelastic. On the other band, the demand for comforts and luxuries is elastic.

2. Availability of substitutes:

Elasticity of demand depends on availability or non-availability of substitutes. In case of commodities, which have substitutes, demand is elastic, but in case of commodities, which have no substitutes, demand is in elastic.

3. Variety of uses:

If a commodity can be used for several purposes, than it will have elastic demand. i.e. electricity. On the other hand, demanded is inelastic for commodities, which can be put to only one use.

4. Postponement of demand:

If the consumption of a commodity can be postponed, than it will have elastic demand. On the contrary, if the demand for a commodity cannot be postpones, than demand is in elastic. The demand for rice or medicine cannot be postponed, while the demand for Cycle or umbrella can be postponed.

5. Amount of money spent:

Elasticity of demand depends on the amount of money spent on the commodity. If the consumer spends a smaller for example a consumer spends a little amount on salt and matchboxes. Even when price of salt or matchbox goes up, demanded will not fall. Therefore, demand is in case of clothing a consumer spends a large proportion of his income and an increase in price will reduce his demand for clothing. So the demand is elastic.

6. Time:

Elasticity of demand varies with time. Generally, demand is inelastic during short period and elastic during the long period. Demand is inelastic during short period because the consumers do not have enough time to know about the change is price. Even if they are aware of the price change, they may not immediately switch over to a new commodity, as they are accustomed to the old commodity.

7. Range of Prices:

Range of prices exerts an important influence on elasticity of demand. At a very high price, demand is inelastic because a slight fall in price will not induce the people buy more. Similarly at a low price also demand is inelastic. This is because at a low price all those who want to buy the commodity would have bought it and a further fall in price will not increase the demand. Therefore, elasticity is low at very him and very low prices.

Importance of Elasticity of Demand:

The concept of elasticity of demand is of much practical importance.

1. Price fixation:

Each seller under monopoly and imperfect competition has to take into account elasticity of demand while fixing the price for his product. If the demand for the product is inelastic, he can fix a higher price.

2. Production:

Producers generally decide their production level on the basis of demand for the product. Hence elasticity of demand helps the producers to take correct decision regarding the level of cut put to be produced.

3. Distribution:

Elasticity of demand also helps in the determination of rewards for factors of production. For example, if the demand for labour is inelastic, trade unions will be successful in raising wages. It is applicable to other factors of production.

4. International Trade:

Elasticity of demand helps in finding out the terms of trade between two countries. Terms of trade refers to the rate at which domestic commodity is exchanged for foreign commodities. Terms of trade depends upon the elasticity of demand of the two countries for each other goods.

5. Public Finance:

Elasticity of demand helps the government in formulating tax policies. For example, for imposing tax on a commodity, the Finance Minister has to take into account the elasticity of demand.

6. Nationalization:

The concept of elasticity of demand enables the government to decide about nationalization of industries.

Demand Forecasting

Introduction:

The information about the future is essential for both new firms and those planning to expand the scale of their production. Demand forecasting refers to an estimate of future demand for the product.It is an 'objective assessment of the future course of demand". In recent times, forecasting plays an important role in business decision-making. Demand forecasting has an important influence on production planning. It is essential for a firm to produce the required quantities at the right time.

It is essential to distinguish between forecasts of demand and forecasts of sales. Sales forecast is important for estimating revenue cash requirements and expenses. Demand forecasts relate to production, inventory control, timing, reliability of forecast etc. However, there is not much difference between these two terms.

Types of demand Forecasting:

Based on the time span and planning requirements of business firms, demand forecasting can be classified in to 1. Short-term demand forecasting and

2. Long – term demand forecasting.

1. Short-term demand forecasting:

Short-term demand forecasting is limited to short periods, usually for one year. It relates to policies regarding sales, purchase, price and finances. It refers to existing production capacity of the firm. Short-term forecasting is essential for formulating is essential for formulating a suitable price policy. If the business people expect of rise in the prices of raw materials of shortages, they may buy early. This price forecasting helps in sale policy formulation. Production may be undertaken based on expected sales and not on actual sales. Further, demand forecasting assists in financial forecasting also. Prior information about production and sales is essential to provide additional funds on reasonable terms.

2. Long – term forecasting:

In long-term forecasting, the businessmen should now about the long-term demand for the product. Planning of a new plant or expansion of an existing unit depends on long-term demand. Similarly a multi product firm must take into account the demand for different items. When forecast are mode covering long periods, the probability of error

is high. It is vary difficult to forecast the production, the trend of prices and the nature of competition. Hence quality and competent forecasts are essential.

Prof. C. I. Savage and T.R. Small classify demand forecasting into time types. They are 1. Economic forecasting, 2. Industry forecasting, 3. Firm level forecasting. Economics forecasting is concerned with the economics, while industrial level forecasting is used for inter-industry comparisons and is being supplied by trade association or chamber of commerce. Firm level forecasting relates to individual firm.

Methods of forecasting:

Several methods are employed for forecasting demand. All these methods can be grouped under survey method and statistical method. Survey methods and statistical methods are further subdivided in to different categories.

1. Survey Method: **Under this method, information about the desires of the consumer and opinion of exports are collected by interviewing them. Survey method can be divided into four type's viz., Option survey method; expert opinion; Delphi method and consumers interview methods.**

a. Opinion survey method:

This method is also known as sales-force composite method (or) collective opinion method. Under this method, the company asks its salesman to submit estimate of future sales in their respective territories. Since the forecasts of the salesmen are biased due to their optimistic or pessimistic attitude ignorance about economic developments etc. these estimates are consolidated, reviewed and adjusted by the top executives. In case of wide differences, an average is struck to make the forecasts realistic.

This method is more useful and appropriate because the salesmen are more knowledge. They can be important source of information. They are cooperative. The implementation within unbiased or their basic can be corrected.

B. Expert opinion method:

Apart from salesmen and consumers, distributors or outside experts may also e used for forecasting. In the United States of America, the automobile companies get sales estimates directly from their dealers. Firms in advanced countries make use of outside experts for estimating future demand. Various public and private agencies all periodic forecasts of short or long term business conditions.

C. Delphi Method:

A variant of the survey method is Delphi method. It is a sophisticated method to arrive at a consensus. Under this method, a panel is selected to give suggestions to solve the problems in hand. Both internal and external experts can be the members of the panel. Panel members one kept apart from each other and express their views in an anonymous manner. There is also a coordinator who acts as an intermediary among the panelists. He prepares the questionnaire and sends it to the panelist. At the end of each round, he prepares a summary report. On the basis of the summary report the panel members have to give suggestions. This method has been used in the area of technological forecasting. It has proved more popular in forecasting. It has provided more popular in forecasting non-economic rather than economic variables.

D. Consumers interview method:

In this method the consumers are contacted personally to know about their plans and preference regarding the consumption of the product. A list of all potential buyers would be drawn and each buyer will be approached and asked how much he plans to buy the listed product in future. He would be asked the proportion in which he intends to buy. This method seems to be the most ideal method for forecasting demand.

2. Statistical Methods: **Statistical method is used for long run forecasting. In this method, statistical and mathematical techniques are used to forecast demand. This method relies on post data.**

a. Time series analysis or trend projection methods:

A well-established firm would have accumulated data. These data are analyzed to determine the nature of existing trend. Then, this trend is projected in to the future and the results are used as the basis for forecast. This is called as time series analysis. This data can be presented either in a tabular form or a graph. In the time series post data of sales are used to forecast future.

b. Barometric Technique:

Simple trend projections are not capable of forecasting turning paints. Under Barometric method, present events are used to predict the directions of change in future. This is done with the help of economics and statistical indicators. Those are (1) Construction Contracts awarded for building materials (2) Personal income (3) Agricultural Income. (4) Employment (5) Gross national income (6) Industrial Production (7) Bank Deposits etc.

c. Regression and correlation method:

Regression and correlation are used for forecasting demand. Based on post data the future data trend is forecasted. If the functional relationship is analyzed with the independent variable it is simple correction. When there are several independent variables it is multiple correlation. In correlation we analyze the nature of relation between the variables while in regression; the extent of relation between the variables is analyzed. The results are expressed in

mathematical form. Therefore, it is called as econometric model building. The main advantage of this method is that it provides the values of the independent variables from within the model itself.

QUESTIONS

1. **What is meant by elasticity of demand? How do you measure it? What are determinates of elasticity of demand?**
2. **What is the utility of demand forecasting? What are the criteria for a good forecasting method? Forecasting of demand for a new product? ' Economic indicators'**
3. **What is promotional elasticity of demand? How does if differ from cross elasticity of demand.**
4. **Explain in law of demand. What do you mean by shifts in demand curve?**
5. **What is cross elasticity of demand? Is it positive for substitute or complements? Show in a diagram relating to the demand for coffee to the price of tea?**
6. **Income elasticity of demand and distinguish its, various tapes. How does it differ from pure elasticity of demand?**
7. **What is meant by demand? Everyone desires a Maruti 800 Car – Does this mean that the demand for Maruti Car is large?**
8. **Calculate price elasticity of demand:**
   $Q1 = 4000$ $P1 = 20$
   $Q2 = 5000$ $P2 = 19$
9. **What is demand analysis? Explain the factor influencing the demand for a product?**
   What are the various factors that influence the demand for a computer.

QUIZ

1. Who explained the "Law of Demand"? ( )
(a) Joel Dean (b) Cobb-Douglas
(c) Marshall (d) C.I.Savage & T.R.Small

2. Demand Curve always ________ sloping. ( )
(a) Positive (b) Straight line (c) Negative (d) Vertical

3. Geffen goods, Veblan goods and speculations are exceptions to___. ( )
(a) Cost function (b) Production function
(c) Law of Demand (d) Finance function

4. Who explained the "Law of Demand"? ( )
(a) Cobb-Douglas (b) Adam smith
(c) Marshall (d) Joel Dean

5. When PE = ∝ (Price Elasticity of Demand is infinite), we call it ___. ( )
(a) Relatively Elastic (b) Perfectly Inelastic
(c) Perfectly Elastic (d) Unit Elastic

6. Income Elasticity of demand when less than 'O' (IE = < O), it is termed as _______. ( )
(a) Income Elasticity less than unity (b) Zero income Elasticity
(c) Negative Income Elasticity (d) Unit Income Elasticity

7. The other name of inferior goods is _______. ( )
(a) Veblan goods (b) Necessaries
(c) Geffen goods (d) Diamonds

8. Estimation of future possible demand is called ______. ( )
(a) Sales Forecasting (b) Production Forecasting
(c) Income Forecasting (d) Demand Forecasting

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9. How many methods are employed to forecast the demand ( )
(a) Three (b) Four
(c) Two (d) Five

10. What is the formula for Price Elasticity of Demand? ( )
(a) % of change in the Price / % of change in the Demand
(b) % of change in the Demand / % of change in the Income
(c) % of change in the Demand / % of change in the Price
(d) % of change in the Demand of 'X' / % of change in the Price of 'Y'

11. When a small change in price leads great change in the quantity demand, We call it ________. ( )
(a) Inelastic Demand (b) Negative Demand
(c) Elastic Demand (d) None

12. When a great change in price leads small change in the quantity demand, We call it ________. ( )
(a) Elastic Demand (b) Positive Demand
(c) Inelastic Demand (d) None

13. "Coffee and Tea are the ________ goods". ( )
(a) Relative (b) Complementary
(c) Substitute (d) None

14. Consumers Survey method is one of the Survey Methods to forecast the__. ( )
(a) Sales (b) Income
(c) Demand (d) Production

15. What is the formula for Income Elasticity of Demand? ( )
(a) % of change in the Income / % of change in the Demand
(b) % of change in the Demand / % of change in the Price
(c) % of change in the Demand / % of change in the Income
(d) % of change in the Demand of 'X' / % of change in the Price of 'Y'

16. What is the formula for Cross Elasticity of Demand? ( )
(a) % of change in the Price of 'X' / % of change in the Demand of 'Y"
(b) % of change in the Demand / % of change in the Price
(c) % of change in the Demand of 'X' / % of change in the Price of 'Y'
(d) % of change in the Demand / % of change in the Income

17. When PE = 0 (Price Elasticity of Demand is Zero), we call it ___. ( )
(a) Relatively Elastic demand (b) Perfectly Elastic demand
(c) Perfectly Inelastic demand (d) Unit Elastic demand

18. When PE =>1 (Price Elasticity of Demand is greater than one), We call it ___. ( )
(a) Perfectly Elastic demand (b) Perfectly inelastic demand
(c) Relatively Elastic demand (d) relatively inelastic demand

19. When PE =<1 (Price Elasticity of Demand is less than one), We call it ___. ( )
(a) Perfectly inelastic demand (b) Relatively Elastic demand
(c) Relatively inelastic demand (d) perfectly Elastic demand

20. When PE =1 (Price Elasticity of Demand is one), we call it ___. ( )

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(a) Perfectly Elastic demand (b) Perfectly inelastic demand
(c) Unit elastic demand (d) Relatively Elastic demand

21. When Income Elasticity of demand is Zero (IE = 0), It is termed as ___. ( )
(a) Negative Income Elasticity (b) Unit Income Elasticity
(c) Zero Income Elasticity (d) Infinite Income Elasticity

Note: Answer is **"C"** for all the above questions.

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PRODUCTION FUNCTION

Introduction: The production function expresses a functional relationship between physical inputs and physical outputs of a firm at any particular time period. The output is thus a function of inputs. Mathematically production function can be written as

$$Q= f (A, B, C, D)$$

Where "Q" stands for the quantity of output and A, B, C, D are various input factors such as land, labour, capital and organization. Here output is the function of inputs. Hence output becomes the dependent variable and inputs are the independent variables.

The above function does not state by how much the output of "Q" changes as a consequence of change of variable inputs. In order to express the quantitative relationship between inputs and output, Production function has been expressed in a precise mathematical equation i.e.

$$Y= a+b(x)$$

Which shows that there is a constant relationship between applications of input (the only factor input 'X' in this case) and the amount of output (y) produced.

Importance:

1. When inputs are specified in physical units, production function helps to estimate the level of production.
2. It becomes is equates when different combinations of inputs yield the same level of output.
3. It indicates the manner in which the firm can substitute on input for another without altering the total output.
4. When price is taken into consideration, the production function helps to select the least combination of inputs for the desired output.
5. It considers two types' input-output relationships namely 'law of variable proportions' and 'law of returns to scale'. Law of variable propositions explains the pattern of output in the short-run as the units of variable inputs are increased to increase the output. On the other hand law of returns to scale explains the pattern of output in the long run as all the units of inputs are increased.
6. The production function explains the maximum quantity of output, which can be produced, from any chosen quantities of various inputs or the minimum quantities of various inputs that are required to produce a given quantity of output.

Production function can be fitted the particular firm or industry or for the economy as whole. Production function will change with an improvement in technology.

Assumptions:

Production function has the following assumptions.

1. The production function is related to a particular period of time.
2. There is no change in technology.
3. The producer is using the best techniques available.
4. The factors of production are divisible.
5. Production function can be fitted to a short run or to long run.

Cobb-Douglas production function:

Production function of the linear homogenous type is invested by Junt wicksell and first tested by C. W. Cobb and P. H. Dougles in 1928. This famous statistical production function is known as Cobb-Douglas production function. Originally the function is applied on the empirical study of the American manufacturing industry. Cabb – Douglas production function takes the following mathematical form.

$Y= (AK^X L^{1-x})$

Where Y=output

K=Capital

L=Labour

A, ∞=positive constant

Assumptions:

It has the following assumptions

1. **The function assumes that output is the function of two factors viz. capital and labour.**
2. **It is a linear homogenous production function of the first degree**
3. **The function assumes that the logarithm of the total output of the economy is a linear function of the logarithms of the labour force and capital stock.**
4. **There are constant returns to scale**
5. **All inputs are homogenous**
6. **There is perfect competition**
7. **There is no change in technology**

ISOQUANTS:

The term Isoquants is derived from the words 'iso' and 'quant' – 'Iso' means equal and 'quent' implies quantity. Isoquant therefore, means equal quantity. A family of iso-product curves or isoquants or production difference curves can represent a production function with two variable inputs, which are substitutable for one another within limits.

Iqoquants are the curves, which represent the different combinations of inputs producing a particular quantity of output. Any combination on the isoquant represents the some level of output.

For a given output level firm's production become,

Q= f (L, K)

Where 'Q', the units of output is a function of the quantity of two inputs 'L' and 'K'.

Thus an isoquant shows all possible combinations of two inputs, which are capable of producing equal or a given level of output. Since each combination yields same output, the producer becomes indifferent towards these combinations.

Assumptions:

1. **There are only two factors of production, viz. labour and capital.**
2. **The two factors can substitute each other up to certain limit**
3. **The shape of the isoquant depends upon the extent of substitutability of the two inputs.**
4. **The technology is given over a period.**

An isoquant may be explained with the help of an arithmetical example.

Combinations	Labour (units)	Capital (Units)	Output (quintals)
A	1	10	50
B	2	7	50
C	3	4	50
D	4	4	50
E	5	1	50

Combination 'A' represent 1 unit of labour and 10 units of capital and produces '50' quintals of a product all other combinations in the table are assumed to yield the same given output of a product say '50' quintals by employing any one of the alternative combinations of the two factors labour and capital. If we plot all these combinations on a paper and join them, we will get continues and smooth curve called Iso-product curve as shown below.

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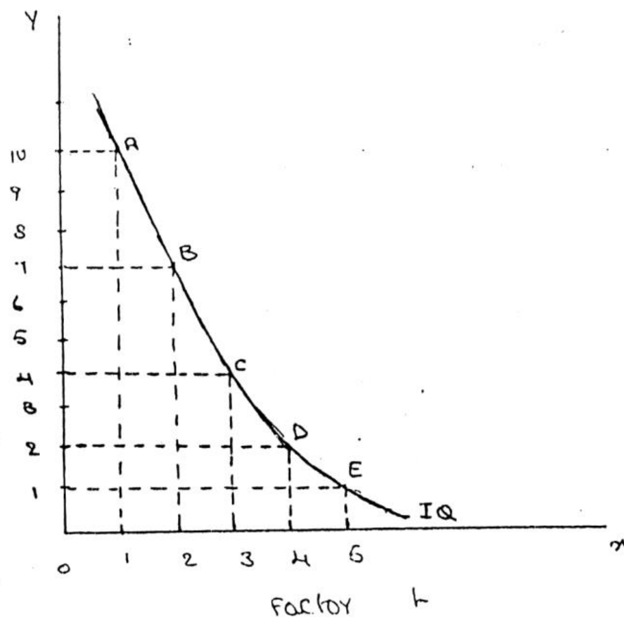


capital ISO- all the B, C,

The is the

Labour is on the X-axis and is on the Y-axis. IQ is the Product curve which shows alternative combinations A, D, E which can produce 50 quintals of a product.

<u>Producer's Equilibrium:</u>

tem producer's equilibrium counter part of consumer's equilibrium. Just as the consumer is in equilibrium when be secures maximum satisfaction, in the same manner, the producer is in equilibrium when he secures maximum output, with the least cost combination of factors of production.

The optimum position of the producer can be found with the help of iso-product curve. The Iso-product curve or equal product curve or production indifference curve shows different combinations of two factors of production, which yield the same output. This is illustrated as follows.

Let us suppose. The producer can produces the given output of paddy say 100 quintals by employing any one of the following alternative combinations of the two factors labour and capital computation of least cost combination of two inputs.

L Units	K Units	Q Output	L&LP (3Rs.) Cost of labour	KXKP(4Rs.) cost of capital	Total cost
10	45	100	30	180	210
20	28	100	60	112	172
30	16	100	90	64	154
40	12	100	120	48	168
50	8	100	150	32	182

It is clear from the above that 10 units of 'L' combined with 45 units of 'K' would cost the producer Rs. 20/-. But if 17 units reduce 'K' and 10 units increase 'L', the resulting cost would be Rs. 172/-. Substituting 10 more units of 'L' for 12 units of 'K' further reduces cost pf Rs. 154/-/ However, it will not be profitable to continue this substitution process further at the existing prices since the rate of substitution is diminishing rapidly. In the above table the least cost combination is 30 units of 'L' used with 16 units of 'K' when the cost would be minimum at Rs. 154/-. So this is they stage "the producer is in equilibrium".

<u>LAW OF PRODUCTION:</u>Production analysis in economics theory considers two types of input-output relationships.

1. **When quantities of certain inputs, are fixed and others are variable and**
2. **When all inputs are variable.**

These two types of relationships have been explained in the form of laws.

- **i) Law of variable proportions**
- **ii) Law of returns to scale**

<u>I. Law of variable proportions:</u>

The law of variable proportions which is a new name given to old classical concept of "Law of diminishing returns has played a vital role in the modern economics theory. Assume that a firms production function consists of fixed quantities of all inputs (land, equipment, etc.) except labour which is a variable input when the firm expands output by employing more and more labour it alters the proportion between fixed and the variable inputs. The law can be stated as follows:

"When total output or production of a commodity is increased by adding units of a variable input while the quantities of other inputs are held constant, the increase in total production becomes after some point, smaller and smaller".

"If equal increments of one input are added, the inputs of other production services being held constant, beyond a certain point the resulting increments of product will decrease i.e. the marginal product will diminish". (G. Stigler)

"As the proportion of one factor in a combination of factors is increased, after a point, first the marginal and then the average product of that factor will diminish". (F. Benham)

The law of variable proportions refers to the behaviour of output as the quantity of one Factor is increased Keeping the quantity of other factors fixed and further it states that the marginal product and average product will eventually do cline. This law states three types of productivity an input factor – Total, average and marginal physical productivity.

***Assumptions of the Law*: The law is based upon the following assumptions:**

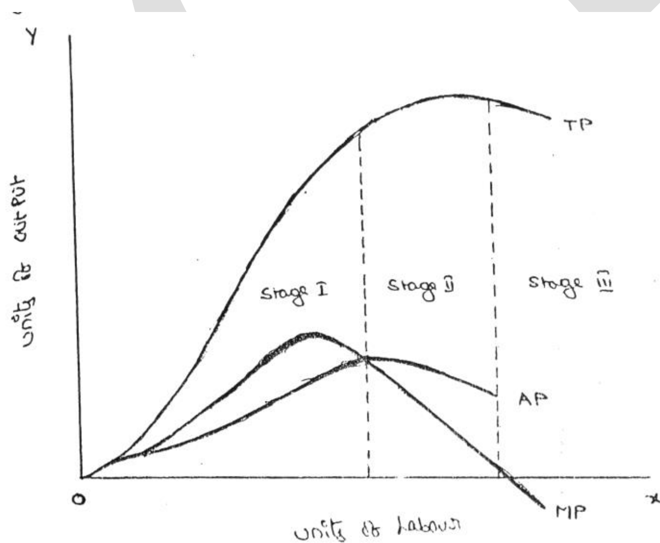
1) **The state of technology remains constant. If there is any improvement in technology, the average and marginal out put will not decrease but increase.**
2) **Only one factor of input is made variable and other factors are kept constant. This law does not apply to those cases where the factors must be used in rigidly fixed proportions.**
3) **All units of the variable factors are homogenous.**

Three stages of law:The behaviors of the Output when the varying quantity of one factor is combines with a fixed quantity of the other can be divided in to three district stages. The three stages can be better understood by following the table.

Fixed factor	Variable factor (Labour)	Total product	Average Product	Marginal Product	
1	1	100	100	-	Stage I
1	2	220	120	120	
1	3	270	90	50	
1	4	300	75	30	Stage II
1	5	320	64	20	
1	6	330	55	10	
1	7	330	47	0	Stage III
1	8	320	40	-10	

Above table reveals that both average product and marginal product increase in the beginning and then decline of the two marginal products drops of faster than average product. Total product is maximum when the farmer employs 6th worker, nothing is produced by the 7th worker and its marginal productivity is zero, whereas marginal product of 8th worker is '-10', by just creating credits 8th worker not only fails to make a positive contribution but leads to a fall in the total output.

Production function with one variable input and the remaining fixed inputs is illustrated as below



From the above graph the law of variable proportions operates in three stages. In the first stage, total product increases at an increasing rate. The marginal product in this stage increases at an increasing rate resulting in a greater increase in total product. The average product also increases. This stage continues up to the point where average product is equal to marginal product. The law of increasing returns is in operation at this stage. The law of diminishing returns starts operating from the second stage awards. At the second stage total product increases only at a diminishing rate. The average product also declines. The second stage comes to an end where total product becomes maximum and marginal product becomes zero. The marginal product becomes negative in the third stage. So the total product also declines. The average product continues to decline.

We can sum up the above relationship thus when 'A.P.' is rising, "M. P.' rises more than " A. P; When 'A. P." is maximum and constant, 'M. P.' becomes equal to 'A. P.' when 'A. P.' starts falling, 'M. P.' falls faster than ' A. P.'.

Thus, the total product, marginal product and average product pass through three phases, viz., increasing diminishing and negative returns stage. The law of variable proportion is nothing but the combination of the law of increasing and demising returns.

<u>II. Law of Returns of Scale</u>:

The law of returns to scale explains the behavior of the total output in response to change in the scale of the firm, i.e., in response to a simultaneous to changes in the scale of the firm, i.e., in response to a simultaneous and proportional increase in all the inputs. More precisely, the Law of returns to scale explains how a simultaneous and proportionate increase in all the inputs affects the total output at its various levels.
The concept of variable proportions is a short-run phenomenon as in these period fixed factors can not be changed and all factors cannot be changed. On the other hand in the long-term all factors can be changed as made variable. When we study the changes in output when all factors or inputs are changed, we study returns to scale. An increase in the scale means that all inputs or factors are increased in the same proportion. In variable proportions, the cooperating factors may be increased or decreased and one faster (Ex. Land in agriculture (or) machinery in industry) remains constant so that the changes in proportion among the factors result in certain changes in output. In returns to scale all the necessary factors or production are increased or decreased to the same extent so that whatever the scale of production, the proportion among the factors remains the same.
When a firm expands, its scale increases all its inputs proportionally, then technically there are three possibilities. (i) The total output may increase proportionately (ii) The total output may increase more than proportionately and (iii) The total output may increase less than proportionately. If increase in the total output is proportional to the increase in input, it means constant returns to scale. If increase in the output is greater than the proportional increase in the inputs, it means increasing return to scale. If increase in the output is less than proportional increase in the inputs, it means diminishing returns to scale.
Let us now explain the laws of returns to scale with the help of isoquants for a two-input and single output production system.

ECONOMIES OF SCALE

Production may be carried on a small scale or o a large scale by a firm. When a firm expands its size of production by increasing all the factors, it secures certain advantages known as economies of production. Marshall has classified these economies of large-scale production into internal economies and external economies.
Internal economies are those, which are opened to a single factory or a single firm independently of the action of other firms. They result from an increase in the scale of output of a firm and cannot be achieved unless output increases. Hence internal economies depend solely upon the size of the firm and are different for different firms.
External economies are those benefits, which are shared in by a number of firms or industries when the scale of production in an industry or groups of industries increases. Hence external economies benefit all firms within the industry as the size of the industry expands.
Causes of internal economies:
Internal economies are generally caused by two factors
1. Indivisibilities 2. Specialization.
Indivisibilities
Many fixed factors of production are indivisible in the sense that they must be used in a fixed minimum size. For instance, if a worker works half the time, he may be paid half the salary. But he cannot be chopped into half and asked to produce half the current output. Thus as output increases the indivisible factors which were being used below capacity can be utilized to their full capacity thereby reducing costs. Such indivisibilities arise in the case of labour, machines, marketing, finance and research.
Specialization.
Division of labour, which leads to specialization, is another cause of internal economies. Specialization refers to the limitation of activities within a particular field of production. Specialization may be in labour, capital, machinery and place. For example, the production process may be split into four departments relation to manufacturing, assembling, packing and marketing under the charge of separate managers who may work under the overall charge of the general manger and coordinate the activities of the for departments. Thus specialization will lead to greater productive efficiency and to reduction in costs.
Internal Economies:
Internal economies may be of the following types.
A). Technical Economies.
Technical economies arise to a firm from the use of better machines and superior techniques of production. As a result, production increases and per unit cost of production falls. A large firm, which employs costly and superior plant and equipment, enjoys a technical superiority over a small firm. Another technical economy lies in the mechanical advantage of using large machines. The cost of operating large machines is less than that of operating mall machine. More over a larger firm is able to reduce it's per unit cost of production by linking the various

processes of production. Technical economies may also be associated when the large firm is able to utilize all its waste materials for the development of by-products industry. Scope for specialization is also available in a large firm. This increases the productive capacity of the firm and reduces the unit cost of production.

B). Managerial Economies:

These economies arise due to better and more elaborate management, which only the large size firms can afford. There may be a separate head for manufacturing, assembling, packing, marketing, general administration etc. Each department is under the charge of an expert. Hence the appointment of experts, division of administration into several departments, functional specialization and scientific co-ordination of various works make the management of the firm most efficient.

C). Marketing Economies:

The large firm reaps marketing or commercial economies in buying its requirements and in selling its final products. The large firm generally has a separate marketing department. It can buy and sell on behalf of the firm, when the market trends are more favorable. In the matter of buying they could enjoy advantages like preferential treatment, transport concessions, cheap credit, prompt delivery and fine relation with dealers. Similarly it sells its products more effectively for a higher margin of profit.

D). Financial Economies:

The large firm is able to secure the necessary finances either for block capital purposes or for working capital needs more easily and cheaply. It can barrow from the public, banks and other financial institutions at relatively cheaper rates. It is in this way that a large firm reaps financial economies.

E). Risk bearing Economies:

The large firm produces many commodities and serves wider areas. It is, therefore, able to absorb any shock for its existence. For example, during business depression, the prices fall for every firm. There is also a possibility for market fluctuations in a particular product of the firm. Under such circumstances the risk-bearing economies or survival economies help the bigger firm to survive business crisis.

F). Economies of Research: **A large firm possesses larger resources and can establish it's own research laboratory and employ trained research workers. The firm may even invent new production techniques for increasing its output and reducing cost.**

G). Economies of welfare:

A large firm can provide better working conditions in-and out-side the factory. Facilities like subsidized canteens, crèches for the infants, recreation room, cheap houses, educational and medical facilities tend to increase the productive efficiency of the workers, which helps in raising production and reducing costs.

External Economies.

Business firm enjoys a number of external economies, which are discussed below:

A). Economies of Concentration:

When an industry is concentrated in a particular area, all the member firms reap some common economies like skilled labour, improved means of transport and communications, banking and financial services, supply of power and benefits from subsidiaries. All these facilities tend to lower the unit cost of production of all the firms in the industry.

B). Economies of Information

The industry can set up an information centre which may publish a journal and pass on information regarding the availability of raw materials, modern machines, export potentialities and provide other information needed by the firms. It will benefit all firms and reduction in their costs.

C). Economies of Welfare:

An industry is in a better position to provide welfare facilities to the workers. It may get land at concessional rates and procure special facilities from the local bodies for setting up housing colonies for the workers. It may also establish public health care units, educational institutions both general and technical so that a continuous supply of skilled labour is available to the industry. This will help the efficiency of the workers.

D). Economies of Disintegration:

The firms in an industry may also reap the economies of specialization. When an industry expands, it becomes possible to spilt up some of the processes which are taken over by specialist firms. For example, in the cotton textile industry, some firms may specialize in manufacturing thread, others in printing, still others in dyeing, some in long cloth, some in dhotis, some in shirting etc. As a result the efficiency of the firms specializing in different fields increases and the unit cost of production falls.

Thus internal economies depend upon the size of the firm and external economies depend upon the size of the industry.

DISECONOMIES OF LARGE SCALE PRODUCTION

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Internal and external diseconomies are the limits to large-scale production. It is possible that expansion of a firm's output may lead to rise in costs and thus result diseconomies instead of economies. When a firm expands beyond proper limits, it is beyond the capacity of the manager to manage it efficiently. This is an example of an internal diseconomy. In the same manner, the expansion of an industry may result in diseconomies, which may be called external diseconomies. Employment of additional factors of production becomes less efficient and they are obtained at a higher cost. It is in this way that external diseconomies result as an industry expands.

The major diseconomies of large-scale production are discussed below:

Internal Diseconomies:

A). Financial Diseconomies:

For expanding business, the entrepreneur needs finance. But finance may not be easily available in the required amount at the appropriate time. Lack of finance retards the production plans thereby increasing costs of the firm.

B). Managerial diseconomies:

There are difficulties of large-scale management. Supervision becomes a difficult job. Workers do not work efficiently, wastages arise, decision-making becomes difficult, coordination between workers and management disappears and production costs increase.

C). Marketing Diseconomies:

As business is expanded, prices of the factors of production will rise. The cost will therefore rise. Raw materials may not be available in sufficient quantities due to their scarcities. Additional output may depress the price in the market. The demand for the products may fall as a result of changes in tastes and preferences of the people. Hence cost will exceed the revenue.

D). Technical Diseconomies:

There is a limit to the division of labour and splitting down of production p0rocesses. The firm may fail to operate its plant to its maximum capacity. As a result cost per unit increases. Internal diseconomies follow.

E). Diseconomies of Risk-taking:

As the scale of production of a firm expands risks also increase with it. Wrong decision by the management may adversely affect production. In large firms are affected by any disaster, natural or human, the economy will be put to strains.

External Diseconomies:

When many firm get located at a particular place, the costs of transportation increases due to congestion. The firms have to face considerable delays in getting raw materials and sending finished products to the marketing centers. The localization of industries may lead to scarcity of raw material, shortage of variousfactors of production like labour and capital, shortage of power, finance and equipments. All such external diseconomies tend to raise cost per unit.

QUESTIONS

1. **Why does the law of diminishing returns operate? Explain with the help of a diagram.**
2. **Explain the nature and uses of production function.**
3. **Explain and illustrate lows of returns to scale.**
4. **a. Explain how production function can be mode use of to reduce cost of Production.**
   b. Explain low of constant returns? Illustrate.
5. **Explain the following (i) Internal Economics (ii) External Economics (or)**
   Explain Economics of scale. Explain the factor, which causes increasing returns to scale.
6. **Explain the following with reference to production functions**
   (a) MRTS
   (b) Variable proportion of factor
7. **Define production function, explain is equate and is cost curves.**
8. **Explain the importance and uses of production function in break-even analysis.**
9. **Discuss the equilibrium of a firm with isoquants.**
10. **(a) What are isocost curves and iso quants? Do they interest each other**
    (b) Explain Cobb-Douglas Production function.

QUIZ

1. How many types of input-output relations discussed by the Law of production. ( )

(a) Five (b) Four

(c) Two (d) Three

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2. How many stages are there in 'Law of Variable Proportions'? ( )
(a) Five (b) Two
(c) Three (d) Four

3. Congregation of body of persons assembling together to work at a certain Time and place is called as ( )
(a) Firm (b) Industry
(c) Plant (d) Size

4. When a firm expands its Size of production by increasing all factors, It secures certain advantages, known as ( )
(a) Optimum Size (b) Diseconomies of Scale
(c) Economies of Scale (d) None

5. When producer secures maximum output with the least cost combination Of factors of production, it is known as_______ ( )
(a) Consumer's Equilibrium (b) Price Equilibrium
(c) Producer's Equilibrium (d) Firm's Equilibrium

6. The 'Law of Variable Proportions' is also called as ____________. ( )
(a) Law of fixed proportions (b) Law of returns to scale
(c) Law of variable proportions (d) None

7. _________ Is a 'group of firms producing the same are slightly Different products for the same market or using same raw material'. ( )
(a) Plant (b) Firm
(c) Industry (d) Size

8. When proportionate increase in all inputs results in an equal Proportionate increase in output, then we call____________. ( )
(a) Increasing Returns to Scale (b) Decreasing Returns to Scale
(c) Constant Returns to Scale (d) None

9. When different combinations of inputs yield the same level of output Known as ___________. ( )
(a) Different Quants (b) Output differentiation
(c) Isoquants (d) Production differentiation

10. Conversion of inputs in to output is called as _________________. ( )
(a) Sales (b) Income
(c) Production (d) Expenditure

11. When Proportionate increase in all inputs results in more than equal Proportionate increase in output, then we call _____________. ( )
(a) Decreasing Returns to Scale (b) Constant Returns to Scale
(c) Increasing Returns to Scale (d) None

12. When Proportionate increase in all inputs results in less than Equal Proportionate increase in output, then we call _____________. ( )
(a) Increasing Returns to Scale (b) Constant Returns to Scale
(c) Decreasing Returns to Scale (d) None

13. A curve showing equal amount of outlay with varying Proportions of Two inputs are called ________________. ( )
(a) Total Cost Curve (b) Variable Cost Curve
(c) Isocost Curve (d) Marginal Cost Curve

Note: Answer is "C" for all the above questions.

COST ANALYSIS

Profit is the ultimate aim of any business and the long-run prosperity of a firm depends upon its ability to earn sustained profits. Profits are the difference between selling price and cost of production. In general the selling price is not within the control of a firm but many costs are under its control. The firm should therefore aim at controlling and minimizing cost. Since every business decision involves cost consideration, it is necessary to understand the meaning of various concepts for clear business thinking and application of right kind of costs.

COST CONCEPTS:

A managerial economist must have a clear understanding of the different cost concepts for clear business thinking and proper application. The several alternative bases of classifying cost and the relevance of each for different kinds of problems are to be studied. The various relevant concepts of cost are:

1. Opportunity costs and outlay costs:

Out lay cost also known as actual costs obsolete costs are those expends which are actually incurred by the firm these are the payments made for labour, material, plant, building, machinery traveling, transporting etc., These are all those expense item appearing in the books of account, hence based on accounting cost concept.

On the other hand opportunity cost implies the earnings foregone on the next best alternative, has the present option is undertaken. This cost is often measured by assessing the alternative, which has to be scarified if the particular line is followed.

The opportunity cost concept is made use for long-run decisions. This concept is very important in capital expenditure budgeting. This concept is very important in capital expenditure budgeting. The concept is also useful for taking short-run decisions opportunity cost is the cost concept to use when the supply of inputs is strictly limited and when there is an alternative. If there is no alternative, Opportunity cost is zero. The opportunity cost of any action is therefore measured by the value of the most favorable alternative course, which had to be foregoing if that action is taken.

2. Explicit and implicit costs:

Explicit costs are those expenses that involve cash payments. These are the actual or business costs that appear in the books of accounts. These costs include payment of wages and salaries, payment for raw-materials, interest on borrowed capital funds, rent on hired land, Taxes paid etc.

Implicit costs are the costs of the factor units that are owned by the employer himself. These costs are not actually incurred but would have been incurred in the absence of employment of self – owned factors. The two normal implicit costs are depreciation, interest on capital etc. A decision maker must consider implicit costs too to find out appropriate profitability of alternatives.

3. ***Historical and Replacement costs:*** **Historical cost is the original cost of an asset. Historical cost valuation shows the cost of an asset as the original price paid for the asset acquired in the past. Historical valuation is the basis for financial accounts.**
4. **A replacement cost is the price that would have to be paid currently to replace the same asset. During periods of substantial change in the price level, historical valuation gives a poor projection of the future cost intended for managerial decision. A replacement cost is a relevant cost concept when financial statements have to be adjusted for inflation.**

4. Short – run and long – run costs:

Short-run is a period during which the physical capacity of the firm remains fixed. Any increase in output during this period is possible only by using the existing physical capacity more extensively. So short run cost is that which varies with output when the plant and capital equipment in constant.

Long run costs are those, which vary with output when all inputs are variable including plant and capital equipment. Long-run cost analysis helps to take investment decisions.

5. Out-of pocket and books costs:

Out-of pocket costs also known as explicit costs are those costs that involve current cash payment. Book costs also called implicit costs do not require current cash payments. Depreciation, unpaid interest, salary of the owner is examples of back costs.

But the book costs are taken into account in determining the level dividend payable during a period. Both book costs and out-of-pocket costs are considered for all decisions. Book cost is the cost of self-owned factors of production.

6. Fixed and variable costs:

Fixed cost is that cost which remains constant for a certain level to output. It is not affected by the changes in the volume of production. But fixed cost per unit decrease, when the production is increased. Fixed cost includes salaries, Rent, Administrative expenses depreciations etc.

Variable is that which varies directly with the variation is output. An increase in total output results in an increase in total variable costs and decrease in total output results in a proportionate decline in the total variables costs. The variable cost per unit will be constant. Ex: Raw materials, labour, direct expenses, etc.

7. Post and Future costs:

Post costs also called historical costs are the actual cost incurred and recorded in the book of account these costs are useful only for valuation and not for decision making.

Future costs are costs that are expected to be incurred in the futures. They are not actual costs. They are the costs forecasted or estimated with rational methods. Future cost estimate is useful for decision making because decision are meant for future.

8. Traceable and common costs:

Traceable costs otherwise called direct cost, is one, which can be identified with a products process or product. Raw material, labour involved in production is examples of traceable cost.

Common costs are the ones that common are attributed to a particular process or product. They are incurred collectively for different processes or different types of products. It cannot be directly identified with any particular process or type of product.

9. Avoidable and unavoidable costs:

Avoidable costs are the costs, which can be reduced if the business activities of a concern are curtailed. For example, if some workers can be retrenched with a drop in a product – line, or volume or production the wages of the retrenched workers are escapable costs.

The unavoidable costs are otherwise called sunk costs. There will not be any reduction in this cost even if reduction in business activity is made. For example cost of the ideal machine capacity is unavoidable cost.

10. Controllable and uncontrollable costs:

Controllable costs are ones, which can be regulated by the executive who is in change of it. The concept of controllability of cost varies with levels of management. Direct expenses like material, labour etc. are controllable costs.

Some costs are not directly identifiable with a process of product. They are appointed to various processes or products in some proportion. This cost varies with the variation in the basis of allocation and is independent of the actions of the executive of that department. These apportioned costs are called uncontrollable costs.

11. Incremental and sunk costs:

Incremental cost also known as different cost is the additional cost due to a change in the level or nature of business activity. The change may be caused by adding a new product, adding new machinery, replacing a machine by a better one etc.

Sunk costs are those which are not altered by any change – They are the costs incurred in the past. This cost is the result of past decision, and cannot be changed by future decisions. Investments in fixed assets are examples of sunk costs.

12. Total, average and marginal costs:

Total cost is the total cash payment made for the input needed for production. It may be explicit or implicit. It is the sum total of the fixed and variable costs. Average cost is the cost per unit of output. If is obtained by dividing the total cost (TC) by the total quantity produced (Q)

Average cost = TC/Q

Marginal cost is the additional cost incurred to produce and additional unit of output or it is the cost of the marginal unit produced.

13. Accounting and Economics costs:

Accounting costs are the costs recorded for the purpose of preparing the balance sheet and profit and ton statements to meet the legal, financial and tax purpose of the company. The accounting concept is a historical concept and records what has happened in the post.

Economics concept considers future costs and future revenues, which help future planning, and choice, while the accountant describes what has happened, the economics aims at projecting what will happen.

COST-OUTPUT RELATIONSHIP

A proper understanding of the nature and behavior of costs is a must for regulation and control of cost of production. The cost of production depends on money forces and an understanding of the functional relationship of cost to various forces will help us to take various decisions. Output is an important factor, which influences the cost.

The cost-output relationship plays an important role in determining the optimum level of production. Knowledge of the cost-output relation helps the manager in cost control, profit prediction, pricing, promotion etc. The relation between cost and its determinants is technically described as the cost function.

C= f (S, O, P, T ….)

Where;

C= Cost (Unit or total cost)
S= Size of plant/scale of production
O= Output level
P= Prices of inputs
T= Technology

Considering the period the cost function can be classified as (a) short-run cost function and (b) long-run cost function. In economics theory, the short-run is defined as that period during which the physical capacity of the firm is fixed and the output can be increased only by using the existing capacity allows to bring changes in output by physical capacity of the firm.

(a) Cost-Output Relation in the short-run:

The cost concepts made use of in the cost behavior are total cost, Average cost, and marginal cost.

Total cost is the actual money spent to produce a particular quantity of output. Total cost is the summation of fixed and variable costs.

$$TC=TFC+TVC$$

Up to a certain level of production total fixed cost i.e., the cost of plant, building, equipment etc, remains fixed. But the total variable cost i.e., the cost of labour, raw materials etc., Vary with the variation in output. Average cost is the total cost per unit. It can be found out as follows.

$$AC=\frac{TC}{Q}$$

The total of average fixed cost (TFC/Q) keep coming down as the production is increased and average variable cost (TVC/Q) will remain constant at any level of output.

Marginal cost is the addition to the total cost due to the production of an additional unit of product. It can be arrived at by dividing the change in total cost by the change in total output.

In the short-run there will not be any change in total fixed cost. Hence change in total cost implies change in total variable cost only.

Cost – output relations

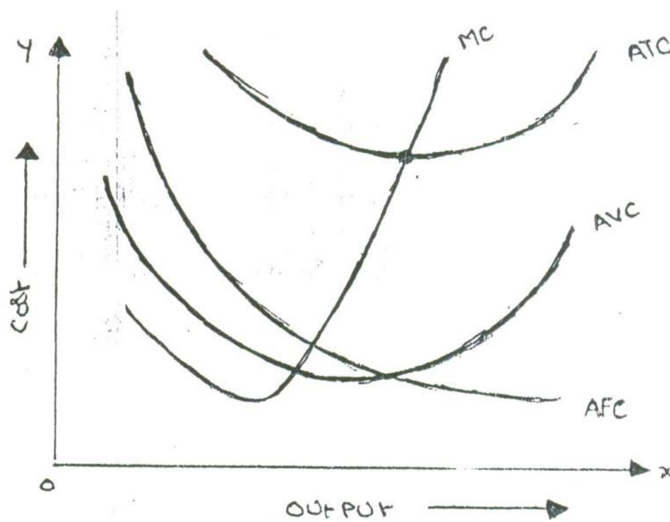
Units of Output Q	Total fixed cost TFC	Total variable cost TVC	Total cost (TFC + TVC) TC	Average variable cost (TVC / Q) AVC	Average fixed cost (TFC / Q) AFC	Average cost (TC/Q) AC	Marginal cost MC
0	-	-	60	-	-	-	-
1	60	20	80	20	60	80	20
2	60	36	96	18	30	48	16
3	60	48	108	16	20	36	12
4	60	64	124	16	15	31	16
5	60	90	150	18	12	30	26
6	60	132	192	22	10	32	42

The above table represents the cost-output relation. The table is prepared on the basis of the law of diminishing marginal returns. The fixed cost Rs. 60 May include rent of factory building, interest on capital, salaries of permanently employed staff, insurance etc. The table shows that fixed cost is same at all levels of output but the average fixed cost, i.e., the fixed cost per unit, falls continuously as the output increases. The expenditure on the variable factors (TVC) is at different rate. If more and more units are produced with a given physical capacity the AVC will fall initially, as per the table declining up to 3rd unit, and being constant up to 4th unit and then rising. It implies that variable factors produce more efficiently near a firm's optimum capacity than at any other levels of output.

And later rises. But the rise in AC is felt only after the start rising. In the table 'AVC' starts rising from the 5th unit onwards whereas the 'AC' starts rising from the 6th unit only so long as 'AVC' declines 'AC' also will decline. 'AFC' continues to fall with an increase in Output. When the rise in 'AVC' is more than the decline in 'AFC', the total cost again begin to rise. Thus there will be a stage where the 'AVC', the total cost again begin to rise thus there will be a stage where the 'AVC' may have started rising, yet the 'AC' is still declining because the rise in 'AVC' is less than the droop in 'AFC'.

Thus the table shows an increasing returns or diminishing cost in the first stage and diminishing returns or diminishing cost in the second stage and followed by diminishing returns or increasing cost in the third stage.

The short-run cost-output relationship can be shown graphically as follows.



In the above graph the "AFC' curve continues to fall as output rises an account of its spread over more and more units Output. But AVC curve (i.e. variable cost per unit) first falls and than rises due to the operation of the law of variable proportions. The behavior of "ATC' curve depends upon the behavior of 'AVC' curve and 'AFC' curve. In the initial stage of production both 'AVC' and 'AFC' decline and hence 'ATC' also decline. But after a certain point 'AVC' starts rising. If the rise in variable cost is less than the decline in fixed cost, ATC will still continue to decline otherwise AC begins to rise. Thus the lower end of 'ATC' curve thus turns up and gives it a U-shape. That is why 'ATC' curve are U-shaped. The lowest point in 'ATC' curve indicates the least-cost combination of inputs. Where the total average cost is the minimum and where the "MC' curve intersects 'AC' curve, It is not be the maximum output level rather it is the point where per unit cost of production will be at its lowest.

The relationship between 'AVC', 'AFC' and 'ATC' can be summarized up as follows:

1. **If both AFC and 'AVC' fall, 'ATC' will also fall.**
2. **When 'AFC' falls and 'AVC' rises**
    a. **'ATC' will fall where the drop in 'AFC' is more than the raise in 'AVC'.**
    b. **'ATC' remains constant is the drop in 'AFC' = rise in 'AVC'**
    c. **'ATC' will rise where the drop in 'AFC' is less than the rise in 'AVC'**

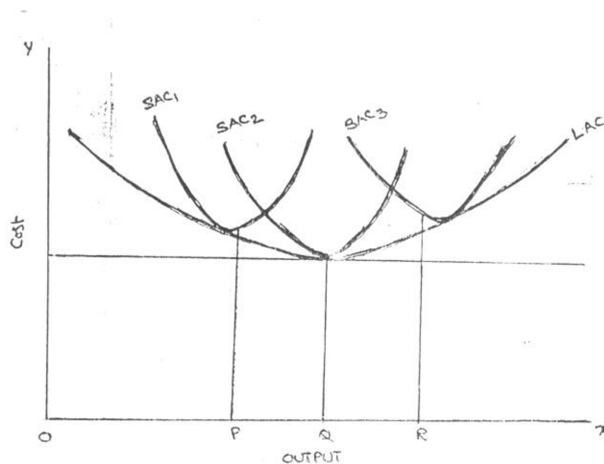
b. Cost-output Relationship in the long-run:

Long run is a period, during which all inputs are variable including the one, which are fixes in the short-run. In the long run a firm can change its output according to its demand. Over a long period, the size of the plant can be changed, unwanted buildings can be sold staff can be increased or reduced. The long run enables the firms to expand and scale of their operation by bringing or purchasing larger quantities of all the inputs. Thus in the long run all factors become variable.

The long-run cost-output relations therefore imply the relationship between the total cost and the total output. In the long-run cost-output relationship is influenced by the law of returns to scale.

In the long run a firm has a number of alternatives in regards to the scale of operations. For each scale of production or plant size, the firm has an appropriate short-run average cost curves. The short-run average cost (SAC) curve applies to only one plant whereas the long-run average cost (LAC) curve takes in to consideration many plants.

The long-run cost-output relationship is shown graphically with the help of "LCA' curve.



To draw on 'LAC' curve we have to start with a number of 'SAC' curves. In the above figure it is assumed that technologically there are only three sizes of plants – small, medium and large, 'SAC', for the small size, 'SAC2' for the medium size plant and 'SAC3' for the large size plant. If the firm wants to produce 'OP' units of output, it will choose the smallest plant. For an

output beyond 'OQ' the firm wills optimum for medium size plant. It does not mean that the OQ production is not possible with small plant. Rather it implies that cost of production will be more with small plant compared to the medium plant.
For an output 'OR' the firm will choose the largest plant as the cost of production will be more with medium plant. Thus the firm has a series of 'SAC' curves. The 'LCA' curve drawn will be tangential to the entire family of 'SAC' curves i.e. the 'LAC' curve touches each 'SAC' curve at one point, and thus it is known as envelope curve. It is also known as planning curve as it serves as guide to the entrepreneur in his planning to expand the production in future. With the help of 'LAC' the firm determines the size of plant which yields the lowest average cost of producing a given volume of output it anticipates.

BREAKEVEN ANALYSIS

The study of cost-volume-profit relationship is often referred as BEA. The term BEA is interpreted in two senses. In its narrow sense, it is concerned with finding out BEP; BEP is the point at which total revenue is equal to total cost. It is the point of no profit, no loss. In its broad determine the probable profit at any level of production.

Assumptions:

1. **All costs are classified into two – fixed and variable.**
2. **Fixed costs remain constant at all levels of output.**
3. **Variable costs vary proportionally with the volume of output.**
4. **Selling price per unit remains constant in spite of competition or change in the volume of production.**
5. **There will be no change in operating efficiency.**
6. **There will be no change in the general price level.**
7. **Volume of production is the only factor affecting the cost.**
8. **Volume of sales and volume of production are equal. Hence there is no unsold stock.**
9. **There is only one product or in the case of multiple products. Sales mix remains constant.**

Merits:

1. **Information provided by the Break Even Chart can be understood more easily then those contained in the profit and Loss Account and the cost statement.**
2. **Break Even Chart discloses the relationship between cost, volume and profit. It reveals how changes in profit. So, it helps management in decision-making.**
3. **It is very useful for forecasting costs and profits long term planning and growth**
4. **The chart discloses profits at various levels of production.**
5. **It serves as a useful tool for cost control.**
6. **It can also be used to study the comparative plant efficiencies of the industry.**
7. **Analytical Break-even chart present the different elements, in the costs – direct material, direct labour, fixed and variable overheads.**

Demerits:

1. **Break-even chart presents only cost volume profits. It ignores other considerations such as capital amount, marketing aspects and effect of government policy etc., which are necessary in decision making.**
2. **It is assumed that sales, total cost and fixed cost can be represented as straight lines. In actual practice, this may not be so.**
3. **It assumes that profit is a function of output. This is not always true. The firm may increase the profit without increasing its output.**
4. **A major draw back of BEC is its inability to handle production and sale of multiple products.**
5. **It is difficult to handle selling costs such as advertisement and sale promotion in BEC.**
6. **It ignores economics of scale in production.**
7. **Fixed costs do not remain constant in the long run.**
8. **Semi-variable costs are completely ignored.**
9. **It assumes production is equal to sale. It is not always true because generally there may be opening stock.**
10. **When production increases variable cost per unit may not remain constant but may reduce on account of bulk buying etc.**
11. **The assumption of static nature of business and economic activities is a well-known defect of BEC.**

1. **Fixed cost**
2. **Variable cost**
3. **Contribution**
4. **Margin of safety**
5. **Angle of incidence**

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6. **Profit volume ratio**
7. **Break-Even-Point**

1. ***Fixed cost:*** **Expenses that do not vary with the volume of production are known as fixed expenses. Eg. Manager's salary, rent and taxes, insurance etc. It should be noted that fixed changes are fixed only within a certain range of plant capacity. The concept of fixed overhead is most useful in formulating a price fixing policy. Fixed cost per unit is not fixed.**
2. ***Variable Cost:*** **Expenses that vary almost in direct proportion to the volume of production of sales are called variable expenses. Eg. Electric power and fuel, packing materials consumable stores. It should be noted that variable cost per unit is fixed.**
3. ***Contribution:*** **Contribution is the difference between sales and variable costs and it contributed towards fixed costs and profit. It helps in sales and pricing policies and measuring the profitability of different proposals. Contribution is a sure test to decide whether a product is worthwhile to be continued among different products.**

Contribution = Sales – Variable cost
Contribution = Fixed Cost + Profit.

4. ***Margin of safety:*** **Margin of safety is the excess of sales over the break even sales. It can be expressed in absolute sales amount or in percentage. It indicates the extent to which the sales can be reduced without resulting in loss. A large margin of safety indicates the soundness of the business. The formula for the margin of safety is:**

Present sales – Break even sales **or** $\frac{\text{Profit}}{\text{P.V. ratio}}$

Margin of safety can be improved by taking the following steps.

1. **Increasing production**
2. **Increasing selling price**
3. **Reducing the fixed or the variable costs or both**
4. **Substituting unprofitable product with profitable one.**

5. ***Angle of incidence:*** **This is the angle between sales line and total cost line at the Break-even point. It indicates the profit earning capacity of the concern. Large angle of incidence indicates a high rate of profit; a small angle indicates a low rate of earnings. To improve this angle, contribution should be increased either by raising the selling price and/or by reducing variable cost. It also indicates as to what extent the output and sales price can be changed to attain a desired amount of profit.**

6. ***Profit Volume Ratio*** **is usually called P. V. ratio. It is one of the most useful ratios for studying the profitability of business. The ratio of contribution to sales is the P/V ratio. It may be expressed in percentage. Therefore, every organization tries to improve the P. V. ratio of each product by reducing the variable cost per unit or by increasing the selling price per unit. The concept of P. V. ratio helps in determining break even-point, a desired amount of profit etc.**

The formula is, $\frac{\text{Contribution}}{Sales}$ **X 100**

7. ***Break – Even- Point:*** **If we divide the term into three words, then it does not require further explanation.**

Break-divide
Even-equal
Point-place or position

Break Even Point refers to the point where total cost is equal to total revenue. It is a point of no profit, no loss. This is also a minimum point of no profit, no loss. This is also a minimum point of production where total costs are recovered. If sales go up beyond the Break Even Point, organization makes a profit. If they come down, a loss is incurred.

1. **Break Even point (Units) =** $\frac{\text{Fixed Expenses}}{\text{Contribution per unit}}$

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2. **Break Even point (In Rupees) =** $\frac{\text{Fixed expenses}}{\text{Contribution}}$ **X sales**

QUESTIONS

1. **What cost concepts are mainly used for management decision making? Illustrate.**

2. **The PV ratio of matrix books Ltd Rs. 40% and the margin of safety Rs. 30. You are required to work out the BEP and Net Profit. If the sales volume is Rs. 14000/-**

3. **A Company reported the following results for two period**

Period	Sales	Profit
I	Rs. 20,00,000	Rs. 2,00,000
II	Rs. 25,00,000	Rs. 3,00,000

Ascertain the BEP, PV ratio, fixes cost and Margin of Safety.

4. **Write short notes on the following**
   a) **Profit – Volume ratio**
   b) **Margin of Safety**

5. **Write short notes on: (i) Suck costs (ii) Abandonment costs**

6. **The information about Raj & Co are given below:**
   PV ratio : 20%
   Fixed Cost : Rs. 36,000/-
   Selling Price Per Unit: Rs. 150/-
   Calculate (i) BEP in rupees (ii) BEP in Units
   (iii) Variable cost per unit
   (iv) Contribution per unit

7. **Define opportunity cost. List out its assumptions & Limitation.**

8. **(a) Explain the utility of BEA in managerial decision making**
   (b) How do you explain break even chart? Explain.

9. **Write short motes on:**
   (i) Fixed cost & variable cost
   (ii) Out of pocket costs & imputed costs
   (iii) Explicit & implicit Costs
   (iv) Short rum cost

10. **Write short note on the following:**
    (a) **PV ratio**
    (b) **Margin of Safety**
    (c) **Angle of incidence**
    (d)

11. **Explain Cost/Output relationship in the short run.**

12. **Appraise the usefulness of BEA for a multi product organization**

13. **Describe the BEP with the help of a diagram and its uses in business decision making.**

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14. If sales in 10000 units and selling price Rs. 20/- per unit. Variable cost is Rs. 10/- per unit and fixed cost is Rs. 80000. Find out BEP in Units and sales revenue what is profit earned? What should be the sales for earning a profit of Rs. 60000/-

15. How do you determine BEP in terms of physical units and sales value? Explain the concepts of margin of safety & angle of incidence.

16. Sales are 1,10,000 producing a profit of Rs. 4000/- in period I, sales are 150000 producing a profit of Rs. 12000/- in period II. Determine BEP & fixed expenses.

17. When a Mc change does Ac changed (a) at the same rate (b) at a higher rate or (c) at a lower rate? Illustrate your answer with a diagram.

18. Explain the relationship between MC, AC and TC assuming a short run non-linear cost function.

19. Sale of a product amounts to 20 units per months at Rs. 10/- per unit. Fixed overheads is Rs. 400/- per month and variable cost is Rs. 6/- per unit. There is a proposal to reduce prices by 107. Calculate present and future P-V ratio. How many units must be sold to earn a target profit of present level?

QUIZ

1. The cost of best alternative forgone is_______________ ( )
   (a) Outlay cost (b) Past cost
   (c) Opportunity cost (d) Future cost
2. If we add up total fixed cost (TFC) and total variable cost (TVC), we get__ ( )
   (a) Average cost (b) Marginal cost
   (c) Total cost (d) Future cost
3. ________ costs are theoretical costs, which are not recognized by the Accounting system. ( )
   (a) Past (b) Explicit (c) Implicit (d) Historical
4. _____cost is the additional cost to produce an additional unit of output. ( )
   (a) Incremental (b) Sunk
   (c) Marginal (d) Total
5. _______ costs are the costs, which are varies with the level of output. ( )
   (a) Fixed (b) Past
   (c) Variable (d) Historical
6. _________________ costs are those business costs, which do not Involve any cash payment. ( )
   (a) Past (b) Historical
   (c) Implicit (d) Explicit
7. The opposite of Past cost is ________________________. ( )
   (a) Historical (b) Fixed cost
   (c) Future cost (d) Variable cost
8. _____ is a period during which the existing physical capacity of the Firm can be changed. ( )
   (a) Market period (b) Short period
   (c) Long period (d) Medium period
9. What is the formula for Profit-Volume Ratio? ( )
   (a) $\frac{\text{Sales}}{\text{Contribution}} \times 100$ (b) $\frac{\text{Variable cost}}{\text{Sales}} \times 100$
   (c) $\frac{\text{Contribution}}{\text{Sales}} \times 100$ (b) $\frac{\text{Fixed cost}}{\text{Sales}} \times 100$
10. _______ is a point of sales at which there is neither profit nor loss. ( )
    (a) Maximum sales (b) Minimum sales (c) Break-Even sales (d) Average sales
11. What is the formula for Margin of Safety? ( )

(a) Break Even sales – Actual sales (b) Maximum sales – Actual sales
(c) Actual sales – Break Even sales (d) Actual sales – Minimum sales

12. What is the formula for Break-Even Point in Units? ( )

(a) Contribution / Selling Price per unit (b) Variable cost / Contribution per unit
(c) Fixed cost / Contribution per unit (d) Variable cost / Selling Price per unit

13. What is the Other Name of Profit Volume Ratio? ( )

(a) Cost-Volume-Profit Ratio (b) Margin of safety Ratio
(c) Marginal Ratio (d) None

14. What is the break-even sales amount, when selling price per unit is 10/- , Variable cost per unit is 6/- and fixed cost is 40,000/-. ( )

(a) Rs. 4, 00,000/- (b) Rs. 3, 00,000/-
(c) Rs. 1, 00,000/- (d) Rs. 2, 00,000/-

15. 'Contribution" is the excess amount of Actual Sales over ______. ( )

(a) Fixed cost (b) Sales
(c) Variable cost (d) Total cost

Note: Answer is "C" for all the above questions.

GCET

UNIT – IV

INTRODUCTION TO MARKET AND PRICING STRATEGIES

Pricing

Introduction

Pricing is an important, if not the most important function of all enterprises. Since every enterprise is engaged in the production of some goods or/and service. Incurring some expenditure, it must set a price for the same to sell it in the market. It is only in extreme cases that the firm has no say in pricing its product; because there is severe or rather perfect competition in the market of the good happens to be of such public significance that its price is decided by the government. In an overwhelmingly large number of cases, the individual producer plays the role in pricing its product.

It is said that if a firm were good in setting its product price it would certainly flourish in the market. This is because the price is such a parameter that it exerts a direct influence on the products demand as well as on its supply, leading to firm's turnover (sales) and profit. Every manager endeavors to find the price, which would best meet with his firm's objective. If the price is set too high the seller may not find enough customers to buy his product. On the other hand, if the price is set too low the seller may not be able to recover his costs. There is a need for the right price further, since demand and supply conditions are variable over time what is a right price today may not be so tomorrow hence, pricing decision must be reviewed and reformulated from time to time.

Price

Price denotes the exchange value of a unit of good expressed in terms of money. Thus the current price of a maruti car around Rs. 2,00,000, the price of a hair cut is Rs. 25 the price of a economics book is Rs. 150 and so on. Nevertheless, if one gives a little, if one gives a little thought to this subject, one would realize that there is nothing like a unique price for any good. Instead, there are multiple prices.

Price concepts

Price of a well-defined product varies over the types of the buyers, place it is received, credit sale or cash sale, time taken between final production and sale, etc.

It should be obvious to the readers, that the price difference on account of the above four factors are more significant. The multiple prices is more serious in the case of items like cars refrigerators, coal, furniture and bricks and is of little significance for items like shaving blade, soaps, tooth pastes, creams and stationeries. Differences in various prices of any good are due to differences in transport cost, storage cost accessories, interest cost, intermediaries' profits etc. Once can still conceive of a basic price, which would be exclusive of all these items of cost and then rationalize other prices by adding the cost of special items attached to the particular transaction, in what follows we shall explain the determination of this basis price alone and thus resolve the problem of multiple prices.

Price determinants – Demand and supply

The price of a product is determined by the demand for and supply of that product. According to Marshall the role of these two determinants is like that of a pair of scissors in cutting cloth. It is possible that at times, while one pair is held fixed, the other is moving to cut the cloth. Similarly, it is conceivable that there could be situations under which either demand or supply is playing a passive role, and the other, which is active, alone appear to be determining the price. However, just as one pair of scissors alone can never cut a cloth, demand or supply alone is insufficient to determine the price.

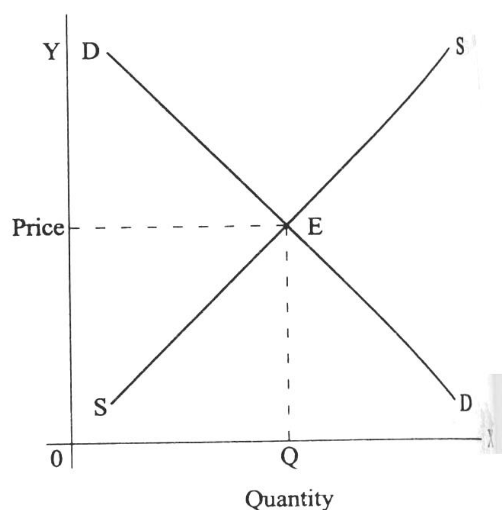
Equilibrium Price

The price at which demand and supply of a commodity is equal known as equilibrium price. The demand and supply schedules of a good are shown in the table below.

Demand supply schedule

Price	Demand	Supply
50	100	200
40	120	180
30	150	150
20	200	110
10	300	50

Of the five possible prices in the above example, price Rs.30 would be the market-clearing price. No other price could prevail in the market. If price is Rs. 50 supply would exceed demand and consequently the producers of this good would not find enough customers for their demand, thereby they would accumulate unwanted inventories of output, which, in turn, would lead to competition among the producers, forcing price to Rs.30. Similarly if price were Rs.10, there would be excess demand, which would give rise to competition among the buyers of good, forcing price to Rs.30. At price Rs.30, demand equals supply and thus both producers and consumers are satisfied. The economist calls such a price as equilibrium price.



It was seen in unit 1 that the demand for a good depends on, a number of factors and thus, every factor, which influences either demand or supply is in fact a determinant of price. Accordingly, a change in demand or/and supply causes price change.

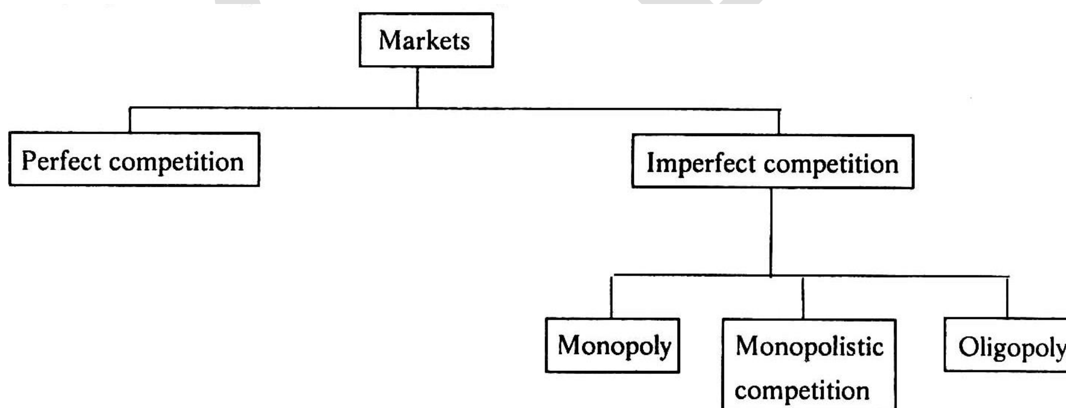
MARKET

Market is a place where buyer and seller meet, goods and services are offered for the sale and transfer of ownership occurs. A market may be also defined as the demand made by a certain group of potential buyers for a good or service. The former one is a narrow concept and later one, a broader concept. Economists describe a market as a collection of buyers and sellers who transact over a particular product or product class (the housing market, the clothing market, the grain market etc.). For business purpose we define a market as people or organizations with wants (needs) to satisfy, money to spend, and the willingness to spend it. Broadly, market represents the structure and nature of buyers and sellers for a commodity/service and the process by which the price of the commodity or service is established. In this sense, we are referring to the structure of competition and the process of price determination for a commodity or service. The determination of price for a commodity or service depends upon the structure of the market for that commodity or service (i.e., competitive structure of the market). Hence the understanding on the market structure and the nature of competition are a pre-requisite in price determination.

Different Market Structures

Market structure describes the competitive environment in the market for any good or service. A market consists of all firms and individuals who are willing and able to buy or sell a particular product. This includes firms and individuals currently engaged in buying and selling a particular product, as well as potential entrants.

The determination of price is affected by the competitive structure of the market. This is because the firm operates in a market and not in isolation. In marking decisions concerning economic variables it is affected, as are all institutions in society by its environment.



Perfect Competition

Perfect competition refers to a market structure where competition among the sellers and buyers prevails in its most perfect form. In a perfectly competitive market, a single market price prevails for the commodity, which is determined by the forces of total demand and total supply in the market.

Characteristics of Perfect Competition

The following features characterize a perfectly competitive market:

1. A large number of buyers and sellers: The number of buyers and sellers is large and the share of each one of them in the market is so small that none has any influence on the market price.

2. **Homogeneous product**: The product of each seller is totally undifferentiated from those of the others.
3. **Free entry and exit:** Any buyer and seller is free to enter or leave the market of the commodity.
4. **Perfect knowledge:** All buyers and sellers have perfect knowledge about the market for the commodity.
5. **Indifference:** No buyer has a preference to buy from a particular seller and no seller to sell to a particular buyer.
6. **Non-existence of transport costs**: Perfectly competitive market also assumes the non-existence of transport costs.
7. **Perfect mobility of factors of production:** Factors of production must be in a position to move freely into or out of industry and from one firm to the other.

Under such a market no single buyer or seller plays a significant role in price determination. One the other hand all of them jointly determine the price. The price is determined in the industry, which is composed of all the buyers and seller for the commodity. The demand curve facing the industry is the sum of all consumers' demands at various prices. The industry supply curve is the sum of all sellers' supplies at various prices.

Pure competition and perfect competition

The term perfect competition is used in a wider sense. Pure competition has only limited assumptions. When the assumptions, that large number of buyers and sellers, homogeneous products, free entry and exit are satisfied, there exists pure competition. Competition becomes perfect only when all the assumptions (features) are satisfied. Generally pure competition can be seen in agricultural products.

Equilibrium of a firm and industry under perfect competition

Equilibrium is a position where the firm has no incentive either to expand or contrast its output. The firm is said to be in equilibrium when it earn maximum profit. There are two conditions for attaining equilibrium by a firm. They are:

Marginal cost is an additional cost incurred by a firm for producing and additional unit of output. Marginal revenue is the additional revenue accrued to a firm when it sells one additional unit of output. A firm increases its output so long as its marginal cost becomes equal to marginal revenue. When marginal cost is more than marginal revenue, the firm reduces output as its costs exceed the revenue. It is only at the point where marginal cost is equal to marginal revenue, and then the firm attains equilibrium. Secondly, the marginal cost curve must cut the marginal revenue curve from below. If marginal cost curve cuts the marginal revenue curve from above, the firm is having the scope to increase its output as the marginal cost curve slopes downwards. It is only with the upward sloping marginal cost curve, there the firm attains equilibrium. The reason is that the marginal cost curve when rising cuts the marginal revenue curve from below. fig. 6.2.-The equilibrium of a perfectly competitive firm may be explained with the help of the

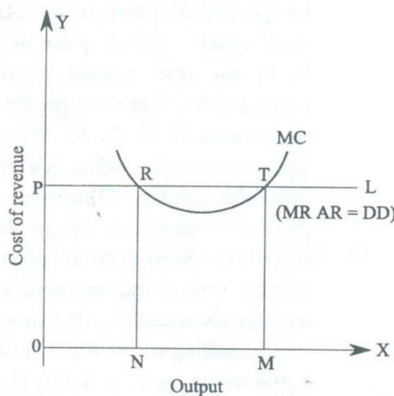


Fig. 6.2

In the given fig. PL and MC represent the Price line and Marginal cost curve. PL also represents Marginal revenue, Average revenue and demand. As Marginal revenue, Average revenue and demand are the same in perfect competition, all are equal to the price line. Marginal cost curve is U- shaped curve cutting MR curve at R and T. At point R marginal cost becomes equal to marginal revenue. But MC curve cuts the MR curve fro above. So this is not the equilibrium position. The downward sloping marginal cost curve indicates that the firm can reduce its cost of production by increasing output. As the firm expands its output, it will reach equilibrium at point T. At this point, on price line PL; the two conditions of equilibrium are satisfied. Here the marginal cost and marginal revenue of the firm remain equal. The firm is producing maximum output and is in equilibrium at this stage. If the firm continues its output beyond this stage, its marginal cost exceeds marginal revenue resulting in losses. As the firm has no idea of expanding or contracting its size of out, the firm is said to be in equilibrium at point T.

Pricing under perfect competition

The price or value of a commodity under perfect competition is determined by the demand for and the supply of that commodity.

Under perfect competition there is large number of sellers trading in a homogeneous product. Each firm supplies only very small portion of the market demand. No single buyer or seller is powerful enough to influence the price. The demand of all consumers and the supply of all firms together determine the price. The individual seller is only a price taker and not a price maker. An individual firm has no price policy of it's own. Thus, the main problem of a firm in a perfectly competitive market is not to determine the price of its product but to adjust its output to the

given price, So that the profit is maximum. Marshall however gives great importance to the time element for the determination of price. He divided the time periods on the basis of supply and ignored the forces of demand. He classified the time into four periods to determine the price as follows.

1. **Very short period or Market period**
2. **Short period**
3. **Long period**
4. **Very long period or secular period**

Very short period: It is the period in which the supply is more or less fixed because the time available to the firm to adjust the supply of the commodity to its changed demand is extremely short; say a single day or a few days. The price determined in this period is known as Market Price.

Short Period: In this period, the time available to firms to adjust the supply of the commodity to its changed demand is, of course, greater than that in the market period. In this period altering the variable factors like raw materials, labour, etc can change supply. During this period new firms cannot enter into the industry.

Long period: In this period, a sufficiently long time is available to the firms to adjust the supply of the commodity fully to the changed demand. In this period not only variable factors of production but also fixed factors of production can be changed. In this period new firms can also enter the industry. The price determined in this period is known as long run normal price.

Secular Period: In this period, a very long time is available to adjust the supply fully to change in demand. This is very long period consisting of a number of decades. As the period is very long it is difficult to lay down principles determining the price.

Price Determination in the market period

The price determined in very short period is known as Market price. Market price is determined by the equilibrium between demand and supply in a market period. The nature of the commodity determines the nature of supply curve in a market period. Under this period goods are classified in to (a) Perishable goods and (b) Non-perishable goods.

Perishable Goods: In the very short period, the supply of perishable goods like fish, milk vegetables etc. cannot be increased. And it cannot be decreased also. As a result the supply curve under very short period will be parallel to the Y-axis or Vertical to X-axis. Supply is perfectly inelastic. The price determination of perishable goods in very short period may be shown with the help of the following fig. 6.5

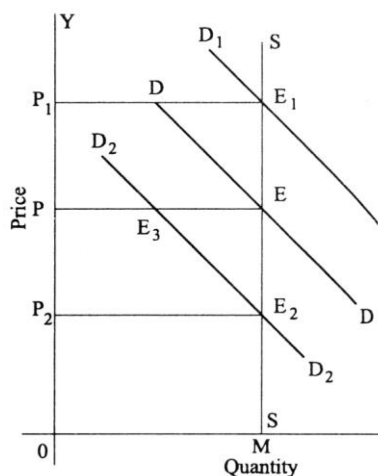


Fig. 6.5

In this figure quantity is represented along X-axis and price is represented along Y-axis. MS is the very short period supply curve of perishable goods. DD is demand curve. It intersects supply curve at E. The price is OP. The quantity exchanged is OM. D1 D1 represents increased demand. This curve cuts the supply curve at E1. Even at the new equilibrium, supply is OM only. But price increases to OP1. So, when demand increases, the price will increase but not the supply. If demand decreases new demand curve will be D2 D2. This curve cuts the supply curve at E2. Even at this new equilibrium, the supply is OM only. But price falls to OP2. Hence in very short period, given the supply, it is the change in demand that influences price. The price determined in a very short period is called Market Price.

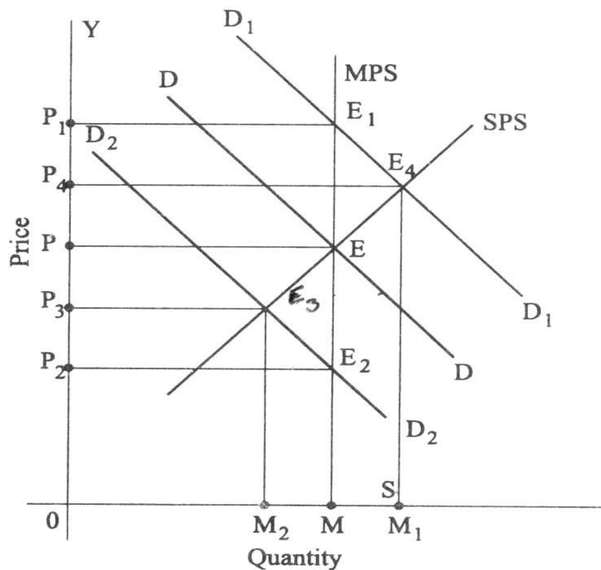


Fig. 6.7

Fig. 6.6

Non-perishable goods: In the very short period, the supply of non-perishable goods like cloth, pen, watches etc. cannot be increased. But if price falls, preserving some stock can decrease their supply. If price falls too much, the whole stock will be held back from the market and carried over to the next market period. The price below, which the seller will refuse to sell, is called Reserve Price.

The Price determination of non-perishable goods in very short period may be shown with the help of the following fig 6.6.

In the given figure quantity is shown on X-axis and the price on Y-axis. SES is the supply curve. It slopes upward up to the point E. From E it becomes a vertical straight line. This is because the quantity existing with sellers is OM, the maximum amount they have is thus OM. Till OM quantity (i.e., point E) the supply curve sloped upward. At the point S, nothing is offered for sale. It means that the seller with hold the entire stock if the price is OS. OS is thus the reserve price. As the price rises, supply increases up to point E. At OP price (Point E), the entire stock is offered for sale.

Suppose demand increases, the DD curve shift upward. It becomes D1D1 price raises to OP1. If demand decreases, the demand curve becomes D2D2. It intersects the supply curve at E3. The price will fall to OP3. We find that at OS price, supply is zero. It is the reserve price.

Price Determination in the short period

Short period is a period in which supply can be increased by altering the variable factors. In this period fixed costs will remain constant. The supply is increased when price rises and vice versa. So the supply curve slopes upwards from left to right.

The price in short period may be explained with the help of a diagram.

In the given diagram MPS is the market period supply curve. DD is the initial demand curve. It intersects MPS curve at E. The price is OP and out put OM. Suppose demand increases, the demand curve shifts upwards and becomes D1D1. In the very short period, supply remains fixed on OM. The new demand curve D1D1 intersects MPS at E1. The price will rise to OP1. This is what happen in the very short-period.

As the price rises from OP to OP1, firms expand output. As firms can vary some factors but not all, the law of variable proportions operates. This results in new short-run supply curve SPS. It interests D1 D1 curve at E4. The price will fall from OP1 to OP4.

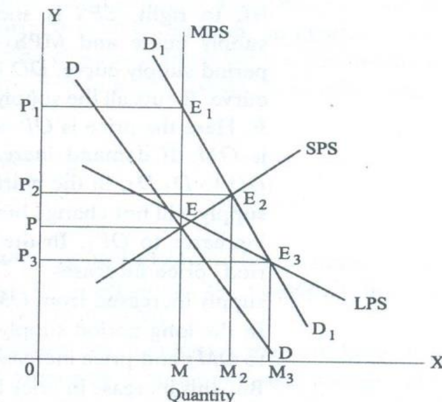


Fig. 6.8

It the demand decreases, DD curve shifts downward and becomes D2D2. It interests MPS curve at E2. The price will fall to OP2. This is what happens in market period. In the short period, the supply curve is SPS. D2D2 curve interests SPS curve at E3. The short period price is higher than the market period price.

Price determination in the long period (Normal Price)

Market price may fluctuate due to a sudden change either on the supply side or on the demand side. A big arrival of milk may decrease the price of that production in the market period. Similarly, a sudden cold wave may raise the price of woolen garments. This type of temporary change in supply and demand may cause changes in market price. In the absence of such disturbing causes, the price tends to come back to a certain level. Marshall called this level is normal price level. In the words of Marshall Normal value (Price) of a commodity is that which economics force would tend to bring about in the long period.

In order to describe how long run normal price is determined, it is useful to refer to the market period as short period also. The market period is so short that no adjustment in the output can be made. Here cost of production has no influence on price. A short period is sufficient only to allow the firms to make only limited output adjustment. In the long period, supply conditions are fully sufficient to meet the changes in demand. In the long period, all factors are alterable and the new firms may enter into or old firms leave the; industry.

In the long period all costs are variable costs. So supply will be increased only when price is equal to average cost.

Hence, in long period normal price will be equal to minimum average cost of the industry. Will this price be more or less than the short period normal price? The answer depends on the stage of returns to which the industry is subject. There are three stages of return on the stage of returns to which the industry is subject. There are three stages of returns.

1. **Increasing returns or decreasing costs.**
2. **Constant Returns or Constant costs.**
3. **Diminishing returns or increasing costs.**

1. **Determination of long period normal price in decreasing cost industry:**

At this stage, average cost falls due to an increase in the output. So, the supply curve at this stage will slope downwards from left to right. The long period Normal price determination at this stage can be explained with the help of a diagram.

In the diagram, MPS represents market period supply curve. DD is demand curve. DD cuts LPS, SPS and MPS at point E. At point E the supply is OM and the price is OP. If demand increases from DD to D1D1 market price increases to OP1. In the short period it is OP2. In the long period supply increases considerably to OM3. So price has fallen to OP3, which is less than the price of market period.

2. **Determination of Long Period Normal Price in Constant Cost Industry:**

In this case average cost does not change even though the output increases. Hence long period supply curve is horizontal to X-axis. The determination of long period normal price can be explained with the help of the diagram. In the fig. 6.9, LPS is horizontal to X-axis. MPS represents market period supply curve, and SPS represents short period supply curve. At point 'E' the output is OM and price is OP. If demand increases from DD to D1D1 market price increases to OP1. In the short period, supply increases and hence the price will be OP2. In the long run supply is adjusted fully to meet increased demand. The price remains constant at OP because costs are constant at OP and market is perfect market.

3. Determination of long period normal price in increase cost industry:

If the industry is subject to increasing costs (diminishing returns) the supply curve slopes upwards from left to right like an ordinary supply curve. The determination of long period normal price in increasing cost industry can be explained with the help of the following diagram. In the diagram LPS represents long period supply curve. The industry is subject to diminishing return or increasing costs. So, LPS slopes upwards from left to right. SPS is short period supply curve and MPS is market period supply curve. DD is demand curve. It cuts all the supply curves at E. Here the price is OP and output is OM. If demand increases from DD to D1D1 in the market period, supply will not change but the price increases to OP1. In the short period, price increase but the price increases to OP1. In the short period, price increases to OP2 as the supply increased from OM to OM2. In the long period supply increases to OM3 and price increases to OP3. But this increase in price is less than the price increase in a market period or short period.

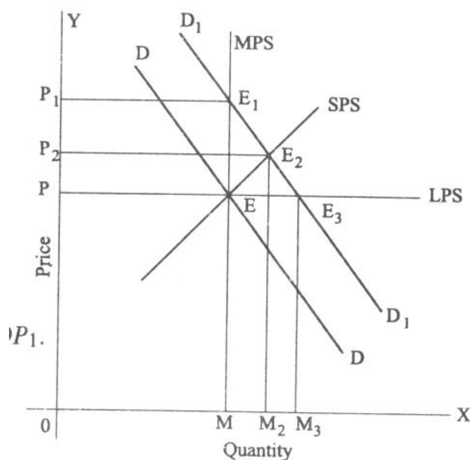


Fig. 6.9

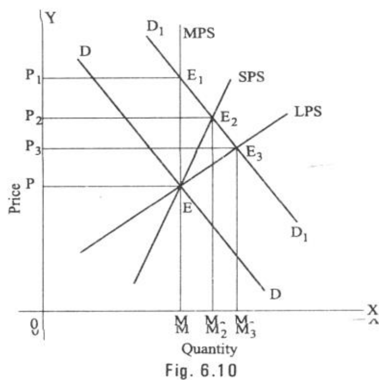


Fig. 6.10

Monopoly

The word monopoly is made up of two syllables, Mono and poly. Mono means single while poly implies selling. Thus monopoly is a form of market organization in which there is only one seller of the commodity. There are no close substitutes for the commodity sold by the seller. Pure monopoly is a market situation in which a single firm sells a product for which there is no good substitute.

Features of monopoly

The following are the features of monopoly.

1. <u>Single person or a firm:</u> A single person or a firm controls the total supply of the commodity. There will be no competition for monopoly firm. The monopolist firm is the only firm in the whole industry.
2. <u>No close substitute:</u> The goods sold by the monopolist shall not have closely competition substitutes. Even if price of monopoly product increase people will not go in far substitute. For example: If the price of electric bulb increase slightly, consumer will not go in for kerosene lamp.
3. <u>Large number of Buyers</u>: Under monopoly, there may be a large number of buyers in the market who compete among themselves.
4. <u>Price Maker:</u> Since the monopolist controls the whole supply of a commodity, he is a price-maker, and then he can alter the price.
5. <u>Supply and Price:</u> The monopolist can fix either the supply or the price. He cannot fix both. If he charges a very high price, he can sell a small amount. If he wants to sell more, he has to charge a low price. He cannot sell as much as he wishes for any price he pleases.
6. <u>Downward Sloping Demand Curve:</u> The demand curve (average revenue curve) of monopolist slopes downward from left to right. It means that he can sell more only by lowering price.

Types of Monopoly

Monopoly may be classified into various types. The different types of monopolies are explained below:

1. <u>Legal Monopoly:</u> If monopoly arises on account of legal support or as a matter of legal privilege, it is called Legal Monopoly. Ex. Patent rights, special brands, trade means, copyright etc.
2. <u>Voluntary Monopoly:</u> To get the advantages of monopoly some private firms come together voluntarily to control the supply of a commodity. These are called voluntary monopolies. Generally, these monopolies arise with industrial combinations. These voluntary monopolies are of three kinds (a) cartel (b) trust (c) holding company. It may be called artificial monopoly.
3. <u>Government Monopoly:</u> Sometimes the government will take the responsibility of supplying a commodity and avoid private interference. Ex. Water, electricity. These monopolies, created to satisfy social wants, are formed on social considerations. These are also called Social Monopolies.
4. <u>Private Monopoly:</u> If the total supply of a good is produced by a single private person or firm, it is called private monopoly. Hindustan Lever Ltd. Is having the monopoly power to produce Lux Soap.
5. <u>Limited Monopoly:</u> if the monopolist is having limited power in fixing the price of his product, it is called as 'Limited Monopoly'. It may be due to the fear of distant substitutes or government intervention or the entry of rivals firms.
6. <u>Unlimited Monopoly:</u> If the monopolist is having unlimited power in fixing the price of his good or service, it is called unlimited monopoly. Ex. A doctor in a village.
7. <u>Single Price Monopoly:</u> When the monopolist charges same price for all units of his product, it is called single price monopoly. Ex. Tata Company charges the same price to all the Tata Indiaca Cars of the same model.
8. <u>Discriminating Monopoly:</u> When a Monopolist charges different prices to different consumers for the same product, it is called discriminating monopoly. A doctor may take Rs.20 from a rich man and only Rs.2 from a poor man for the same treatment.
9. <u>Natural Monopoly:</u> Sometimes monopoly may arise due to scarcity of natural resources. Nature provides raw materials only in some places. The owner of the place will become monopolist. For Ex. Diamond mine in South Africa.

Pricing under Monopoly

Monopoly refers to a market situation where there is only one seller. He has complete control over the supply of a commodity. He is therefore in a position to fix any price. Under monopoly there is no distinction between a firm and an industry. This is because the entire industry consists of a single firm.

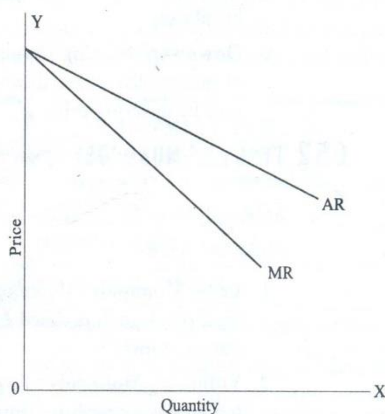


Fig. 6.11

Being the sole producer, the monopolist has complete control over the supply of the commodity. He has also the power to influence the market price. He can raise the price by reducing his output and lower the price by increasing his output. Thus he is a price-maker. He can fix the price to his maximum advantages. But he cannot fix both the supply and the price, simultaneously. He can do one thing at a time. If the fixes the price, his output will be determined by the market demand for his commodity. On the other hand, if he fixes the output to be sold, its market will determine the price for the commodity. Thus his decision to fix either the price or the output is determined by the market demand.

The market demand curve of the monopolist (the average revenue curve) is downward sloping. Its corresponding marginal revenue curve is also downward sloping. But the marginal revenue curve lies below the average revenue curve as shown in the figure. The monopolist faces the down-sloping demand curve because to sell more output, he must reduce the price of his product. The firm's demand curve and industry's demand curve are one and the same. The average cost and marginal cost curve are U shaped curve. Marginal cost falls and rises steeply when compared to average cost.

Price output determination (Equilibrium Point)

The monopolistic firm attains equilibrium when its marginal cost becomes equal to the marginal revenue. The monopolist always desires to make maximum profits. He makes maximum profits when MC=MR. He does not increasing his output if his revenue exceeds his costs. But when the costs exceed the revenue, the monopolist firm incur loses. Hence the monopolist curtails his production. He produces up to that point where additional cost is equal to the additional revenue (MR=MC). Thus point is called equilibrium point. The price output determination under monopoly may be explained with the help of a diagram.

In the diagram 6.12 the quantity supplied or demanded is shown along X-axis. The cost or revenue is shown along Y-axis. AC and MC are the average cost and marginal cost curves respectively. AR and MR curves slope downwards from left to right. AC and MC and U shaped curves. The monopolistic firm attains equilibrium when its marginal cost is equal to marginal revenue (MC=MR). Under monopoly, the MC curve may cut the MR curve from below or from a side. In the diagram, the above condition is satisfied at point E. At point E, MC=MR. The firm is in equilibrium. The equilibrium output is OM.

The above diagram (Average revenue) = MQ or OP

Average cost = MR

Profit per unit = Average Revenue-Average cost=MQ-MR=QR

Total Profit = QRXSR=PQRS

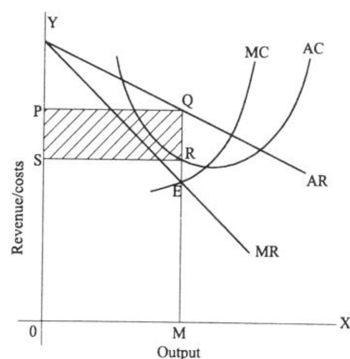


Fig. 6.12

The area PQRS resents the maximum profit earned by the monopoly firm.

But it is not always possible for a monopolist to earn super-normal profits. If the demand and cost situations are not favorable, the monopolist may realize short run losses.

Through the monopolist is a price marker, due to weak demand and high costs; he suffers a loss equal to PABC.

If AR > AC -> Abnormal or super normal profits.

If AR = AC -> Normal Profit

If AR < AC -> Loss

In the long run the firm has time to adjust his plant size or to use existing plant so as to maximize profits.

Monopolistic competition

Perfect competition and pure monopoly are rate phenomena in the real world. Instead, almost every market seems to exhibit characteristics of both perfect competition and monopoly. Hence in the real world it is the state of imperfect competition lying between these two extreme limits that work. Edward. H. Chamberlain developed the theory of monopolistic competition, which presents a more realistic picture of the actual market structure and the nature of competition.

Characteristics of Monopolistic Competition

The important characteristics of monopolistic competition are:

1. Existence of Many firms: Industry consists of a large number of sellers, each one of whom does not feel dependent upon others. Every firm acts independently without bothering about the reactions of its rivals. The size is so large that an individual firm has only a relatively small part in the total market, so that each firm has very limited control over the price of the product. As the number is relatively large it is difficult for these firms to determine its price- output policies without considering the possible reactions of the rival forms. A monopolistically competitive firm follows an independent price policy.
2. Product Differentiation: Product differentiation means that products are different in some ways, but not altogether so. The products are not identical but the same time they will not be entirely different from each other. IT really means that there are various monopolist firms competing with each other. An example of monopolistic competition and product differentiation is the toothpaste produced by various firms. The product of each firm is different from that of its rivals in one or more respects. Different toothpastes like Colgate, Close-up, Forehans, Cibaca, etc., provide an example of monopolistic competition. These products are relatively close substitute for each other but not perfect substitutes. Consumers have definite preferences

for the particular verities or brands of products offered for sale by various sellers. Advertisement, packing, trademarks, brand names etc. help differentiation of products even if they are physically identical.

3. <u>Large Number of Buyers:</u> There are large number buyers in the market. But the buyers have their own brand preferences. So the sellers are able to exercise a certain degree of monopoly over them. Each seller has to plan various incentive schemes to retain the customers who patronize his products.
4. <u>Free Entry and Exist of Firms:</u> As in the perfect competition, in the monopolistic competition too, there is freedom of entry and exit. That is, there is no barrier as found under monopoly.
5. <u>Selling costs:</u> Since the products are close substitute much effort is needed to retain the existing consumers and to create new demand. So each firm has to spend a lot on selling cost, which includes cost on advertising and other sale promotion activities.
6. <u>Imperfect Knowledge:</u> Imperfect knowledge about the product leads to monopolistic competition. If the buyers are fully aware of the quality of the product they cannot be influenced much by advertisement or other sales promotion techniques. But in the business world we can see that thought the quality of certain products is the same, effective advertisement and sales promotion techniques make certain brands monopolistic. For examples, effective dealer service backed by advertisement-helped popularization of some brands through the quality of almost all the cement available in the market remains the same.
7. <u>The Group:</u> Under perfect competition the term industry refers to all collection of firms producing a homogenous product. But under monopolistic competition the products of various firms are not identical through they are close substitutes. Prof. Chamberlin called the collection of firms producing close substitute products as a group.

<u>Price – Output Determination under Monopolistic Competition</u>

Since under monopolistic competition different firms produce different varieties of products, different prices for them will be determined in the market depending upon the demand and cost conditions. Each firm will set the price and output of its own product. Here also the profit will be maximized when marginal revenue is equal to marginal cost.

Short-run equilibrium of the firm:

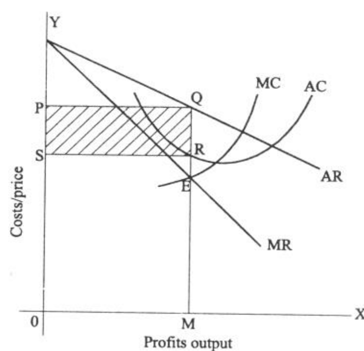


Fig. 6.15

In the short-run the firm is in equilibrium when marginal Revenue = Marginal Cost. In Fig 6.15 AR is the average revenue curve. NMR marginal revenue curve, SMC short-run marginal cost curve, SAC short-run average cost curve, MR and SMC interest at point E where output in OM and price MQ (i.e. OP). Thus the equilibrium output or the maximum profit output is OM and the price MQ or OP. When the price (average revenue) is above average cost a firm will be making supernormal profit. From the figure it can be seen that AR is above AC in the equilibrium point. As AR is above AC, this firm is making abnormal profits in the short-run. The abnormal profit per unit is QR, i.e., the difference between AR and AC at equilibrium point and the total supernormal profit is OR X OM. This total abnormal profits is represented by the rectangle PQRS. As the demand curve here is highly elastic, the excess price over marginal cost is rather low. But in monopoly the demand curve is inelastic. So the gap between price and marginal cost will be rather large.

If the demand and cost conditions are less favorable the monopolistically competitive firm may incur loss in the short-run fig 6.16 Illustrates this. A firm incurs loss when the price is less than the average cost of production. MQ is the average cost and OS (i.e. MR) is the price per unit at equilibrium output OM. QR is the loss per unit. The total loss at an output OM is OR X OM. The rectangle PQRS represents the total loses in the short run.

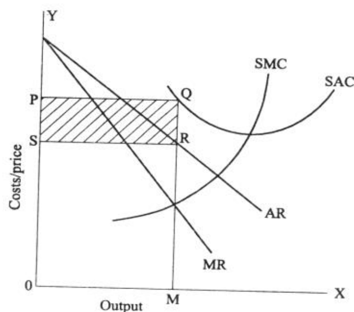


Fig. 6.16

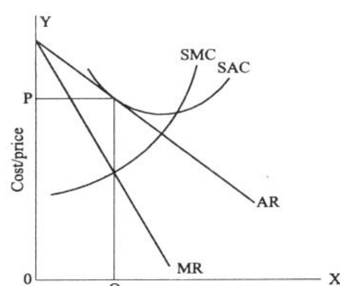


Fig. 6.17

Long – Run Equilibrium of the Firm:

A monopolistically competitive firm will be long – run equilibrium at the output level where marginal cost equal to marginal revenue. Monopolistically competitive firm in the long run attains equilibrium where MC=MR and AC=AR Fig 6.17 shows this trend.

Oligopoly

The term oligopoly is derived from two Greek words, oligos meaning a few, and

pollen meaning to sell. Oligopoly is the form of imperfect competition where there are a few firms in the market, producing either a homogeneous product or producing products, which are close but not perfect substitute of each other.

Characteristics of Oligopoly

The main features of oligopoly are:

1. **Few Firms: There are only a few firms in the industry. Each firm contributes a sizeable share of the total market. Any decision taken by one firm influence the actions of other firms in the industry. The various firms in the industry compete with each other.**
2. **Interdependence: As there are only very few firms, any steps taken by one firm to increase sales, by reducing price or by changing product design or by increasing advertisement expenditure will naturally affect the sales of other firms in the industry. An immediate retaliatory action can be anticipated from the other firms in the industry every time when one firm takes such a decision. He has to take this into account when he takes decisions. So the decisions of all the firms in the industry are interdependent.**
3. **Indeterminate Demand Curve: The interdependence of the firms makes their demand curve indeterminate. When one firm reduces price other firms also will make a cut in their prices. So he firm cannot be certain about the demand for its product. Thus the demand curve facing an oligopolistic firm loses its definiteness and thus is indeterminate as it constantly changes due to the reactions of the rival firms.**
4. **Advertising and selling costs: Advertising plays a greater role in the oligopoly market when compared to other market systems. According to Prof. William J. Banumol "it is only oligopoly that advertising comes fully into its own". A huge expenditure on advertising and sales promotion techniques is needed both to retain the present market share and to increase it. So Banumol concludes "under oligopoly, advertising can become a life-and-death matter where a firm which fails to keep up with the advertising budget of its competitors may find its customers drifting off to rival products."**
5. **Price Rigidity: In the oligopoly market price remain rigid. If one firm reduced price it is with the intention of attracting the customers of other firms in the industry. In order to retain their consumers they will also reduce price. Thus the pricing decision of one firm results in a loss to all the firms in the industry. If one firm increases price. Other firms will remain silent there by allowing that firm to lost its customers. Hence, no firm will be ready to change the prevailing price. It causes price rigidity in the oligopoly market.**

OTHER MARKET STRUCTURES

Duopoly

Duopoly refers to a market situation in which there are only two sellers. As there are only two sellers any decision taken by one seller will have reaction from the other Eg. Coca-Cola and Pepsi. Usually these two sellers may agree to co-operate each other and share the market equally between them, So that they can avoid harmful competition.
The duopoly price, in the long run, may be a monopoly price or competitive price, or it may settle at any level between the monopoly price and competitive price. In the short period, duopoly price may even fall below the level competitive price with the both the firms earning less than even the normal price.

Monopsony

Mrs. Joan Robinson was the first writer to use the term monopsony to refer to market, which there is a single buyer. Monoposony is a single buyer or a purchasing agency, which buys the show, or nearly whole of a commodity or service produced. It may be created when all consumers of a commodity are organized together and/or when only one consumer requires that commodity which no one else requires.

Bilateral Monopoly

A bilateral monopoly is a market situation in which a single seller (Monopoly) faces a single buyer (Monoposony). It is a market of monopoly-monoposy.

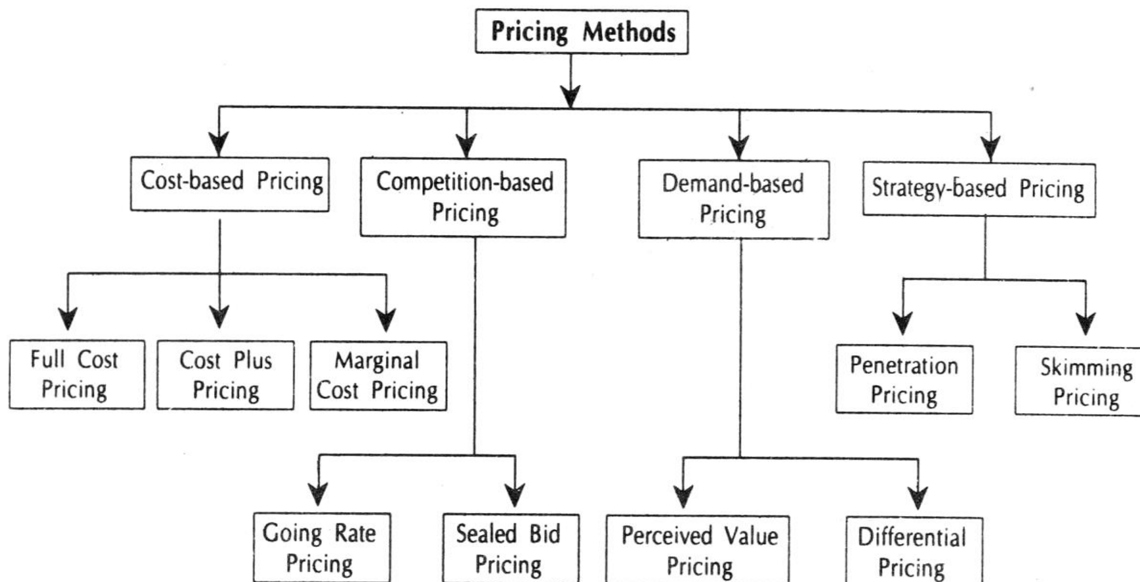
Oligopsony

Oligopsony is a market situation in which there will be a few buyers and many sellers. As the sellers are more and buyers are few, the price of product will be comparatively low but not as low as under monopoly.

PRICING METHODS

The micro – economic principle of profit maximization suggests pricing by the marginal analysis. That is by equating MR to MC. However the pricing methods followed by the firms in practice around the world rarely follow this procedure. This is for two reasons; uncertainty with regard to demand and cost function and the deviation from the objective of short run profit maximization.

It was seen that there is no unique theory of firm behavior. While profit certainly on important variable for which every firm cares. Maximization of short – run profit is not a popular objective of a firm today. At the most firms seek maximum profit in the long run. If so the problem is dynamic and its solution requires accurate knowledge of demand and cost conditions over time. Which is impossible to come by?
In view of these problems economic prices are a rare phenomenon. Instead, firms set prices for their products through several alternative means. The important pricing methods followed in practice are shown in the chart.



Cost Based Pricing

There are three versions of the cost – based pricing. Full – cost or break even pricing, cost plus pricing and the marginal cost pricing. Under the first version, price just equals the average (total) cost. In the second version, some mark-up is added to the average cost in arriving at the price. In the last version, price is set equal to the marginal cost. While all these methods appear to be easy and straight forward, they are in fact associated with a number of difficulties. Even through difficulties are there, the cost- oriented pricing is quite popular today.
The cost – based pricing has several strengths as well as limitations. The advantages are its simplicity, acceptability and consistency with the target rate of return on investment and the price stability in general. The limitations are difficulties in getting accurate estimates of cost (particularly of the future cost rather than the historic cost) Volatile nature of the variable cost and its ignoring of the demand side of the market etc.

Competition based pricing

Some commodities are priced according to the competition in their markets. Thus we have the going rate method of price and the sealed bid pricing technique. Under the former a firm prices its new product according to the prevailing prices of comparable products in the market. If the product is new in the country, then its import cost – inclusive of the costs of certificates, insurance, and freight and customs duty, is used as the basis for pricing, Incidentally, the price is not necessarily equal to the import cost, but to the firm is either new in the country, or is a close substitute or complimentary to some other products, the prices of hitherto existing bands or / and of the related goods are taken in to a account while deciding its price. Thus, when television was first manufactures in India, its import cost must have been a guiding force in its price determination. Similarly, when maruti car was first manufactured in India, it must have taken into account the prices of existing cars, price of petrol, price of car accessories, etc. Needless to say, the going rate price could be below or above the average cost and it could even be an economic price.

The sealed bid pricing method is quite popular in the case of construction activities and in the disposition of used produces. In this method the prospective seller (buyers) are asked to quote their prices through a sealed cover, all the offers are opened at a preannounce time in the presence of all the competitors, and the one who quoted the least is awarded the contract (purchase / sale deed). As it sound, this method is totally competition based and if the competitors unit by any change, the buyers (seller) may have to pay (receive) an exorbitantly high (too low) price, thus there is a great degree of risk attached to this method of pricing.

Demand Based Pricing

The demand – based pricing and strategy – based pricing are quite related. The seller knows rather well that the demand for its product is a decreasing function of the price its sets for product. Thus if seller wishes to sell more he must reduce the price of his product, and if he wants a good price for his product, he could sell only a limited quantity of his good. Demand oriented pricing rules imply establishment of prices in accordance with consumer preference and perceptions and the intensity of demand.

Two general types demand oriented pricing rules can be identified.

- **i. Perceived value pricing and**
- **ii. Differential pricing**

Perceived value pricing considers the buyer's perception of the value of the product ad the basis of pricing. Here the pricing rule is that the firm must develop procedures for measuring the relative value of the product as perceived by consumers. Differential pricing is nothing but price discrimination. In involves selling a product or service for different prices in different market segments. Price differentiation depends on geographical location of the consumers, type of consumer, purchasing quantity, season, time of the service etc. E.g. Telephone charges, APSRTC charges.

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Strategy based pricing (new product pricing)

A firm which products a new product, if it is also new to industry, can earn very good profits it if handles marketing carefully, because of the uniqueness of the product. The price fixed for the new product must keep the competitors away. Earn good profits for the firm over the life of the product and must help to get the product accepted. The company can select either skimming pricing or penetration pricing.

While there are some firms, which follow the strategy of price penetration, there are some others who opt for price – skimming. Under the former, firms sell their new product at a low price in the beginning in order to catch the attention of consumers, once the product image and credibility is established, the seller slowly starts jacking up the price to reap good profits in future. Under this strategy, a firm might well sell its product below the cost of production and thus runs into losses to start with but eventually it recovers all its losses and even makes good overall profits. The Rin washing soap perhaps falls into this category. This soap was sold at a rather low price in the beginning and the firm even distributed free samples. Today, it is quite an expensive brand and yet it is selling very well. Under the price – skimming strategy, the new product is priced high in the beginning, and its price is reduced gradually as it faces a dearth of buyers such a strategy may be beneficial for products, which are fancy, but of poor quality and / or of insignificant use over a period of time.

A prudent producer follows a good mix of the various pricing methods rather than adapting any once of them. This is because no method is perfect and every method has certain good features further a firm might adopt one method at one time and another method at some other accession.

QUESTIONS

1. **Explain how a firm attains equilibrium in the short run and in the long run under conditions of perfect competition.**
2. **Explain the following with the help of the table and diagram under perfect competition and monopoly**
   - **(a) Total Revenue**
   - **(b) Marginal Revenue**
   - **(c) Average Revenue**
3. **Define monopoly. How is price under monopoly determined?**
4. **Explain the role of time factor in the determination of price. Also explain price-O/P determination in case of perfect competition.**
5. **(a) Distinguish between perfect & imperfect markets (b) What are the different market situations in imperfect competition.**
6. **"Perfect competition results in larger O/P with lower price than a monopoly" Discuss.**
7. **Compare between monopoly and perfect competition.**
8. **What is price discrimination? Explain essential conditions for price discrimination.**
9. **Explain the following (a) Monopoly (B) Duopoly (c) Oligopoly (d) imperfect competition.**
10. **What is a market? Explain, in brief, the different market structures.**
11. **Monopoly is disappearing from markets. Do you agree with this statement? Do you advocate for monopoly to continue in market situations.**

QUIZ

1. Exchange value of a unit of good expressed in terms of money is called ( )
(a) Cost (b) Capital
(c) Price (d) Expenditure

2. The price of a product is determined by the ______of that product ( )
(a) Place and time (b) Production and sales
(c) Demand and supply (d) Cost and income

3. The price at which demand and supply of a commodity equal is Known as ( )
(a) High price (b) Low price
(c) Equilibrium price (d) Marginal price

4. A market where large number of buyers and sellers dealing in Homogeneous product with perfect knowledge is called ( )
(a) Imperfect competition (b) Monopoly
(c) Perfect competition (d) Monopolistic competition

5. In which market, single market price prevails for the commodity ( )
   (a) Monopoly market (b) Oligopoly market
   (c) Perfect competition market (d) Duopoly market

6. The Price determined in the very short period is known as_____. ( )
   (a) Secular price (b) Normal price
   (c) Market price (d) Short run price

7. In which period, the supply of commodity is fixed ( )
   (a) Short period (b) Long period
   (c) Very short period (d) Very long period

8. Charging very high price in the beginning and reducing it gradually is called ( )
   (a) Differential pricing (b) Sealed bid pricing
   (c) Skimming pricing (d) Penetration pricing

9. If monopoly arises on account of legal support or as a matter of legal Privilege, it is called as ( )
   (a) Private monopoly (b) Government monopoly
   (c) Legal monopoly (d) Single price monopoly

10. Under which pricing method, price just equals the total cost ( )
   (a) Marginal cost pricing (b) Cost plus pricing
   (c) Full cost pricing (d) Going rate pricing

11. ______ is a place in which goods and services are bought and sold. ( )
   (a) Factory (b) Workshop
   (c) Market (d) Warehouse

12. ___________________ is the example for perishable goods. ( )
   (a) Pens (b) Belts
   (c) Vegetables (d) Cloths

13. ____________________is a form of market organization in which There is only one seller of the commodity. ( )
   (a) Perfect Competition (b) Duopoly
   (c) Monopoly (d) Oligopoly

14. If average Revenue is greater than the Average cost, monopolist Earns __ . ( )
   (a) Loss (b) No loss No profit
   (c) Profit (d) None

15. The firm is said to be in equilibrium, when it's Marginal Cost (MC) Equals to___ . ( )
   (a) Total cost (b) Total revenue
   (c) Marginal Revenue (d) Average Revenue

16. ___________ is a position where the firm has no incentive either to expand or contrast its output. ( )
   (a) Maximum output (b) Minimum output
   (c) Equilibrium (d) None

17. Marginal revenue, Average revenue and Demand are the same in ________ Market Environment ( )
   (a) Monopoly (b) Duopoly
   (c) Perfect Competition (d) Imperfect Competition

18. _________ is a period in which supply can be increased by altering the Variable factors and fixed costs will remain constant. ( )
   (a) Long – run (b) Mid – term
   (c) Short – run (d) Market period

19. The total supply of a good is produced by a single private person or Firm is called as________. ( )
   (a) Government Monopoly (b) Legal Monopoly
   (c) Private Monopoly (d) Natural Monopoly

20. In perfect competition market, seller is the _________. ( )
   (a) Price – Maker (b) Price changer
   (c) Price – Taker (d) Price Dictator

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21. Charging Very Low price in the beginning and increasing it gradually is called ________ ( )

(a) Differential pricing **(b) Sealed bid Pricing**

(c) Penetration Pricing **(d) Skimming Pricing**

22. If Average Revenue is less than the Average Cost, Monopoly secures __. ( )

(a) Profits **(b) Abnormal Profits**

(c) Losses **(d) Super Profits**

23. In Monopoly market environment, seller is the __________. ( )

(a) Price - Taker **(b) Price - Accepter**

(c) Price - Maker **(d) None**

Note: Answer is "C" for all the above questions.

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UNIT - V
BUSINESS AND NEW ECONOMIC ENVIRONMENT

Imagine you want to do business. Which are you interested in? For example, you want to get into InfoTech industry. What can you do in this industry? Which one do you choose? The following are the alternatives you have on hand:

- **You can bye and sell**
- **You can set up a small/medium/large industry to manufacture**
- **You can set up a workshop to repair**
- **You can develop software**
- **You can design hardware**
- **You can be a consultant/trouble-shooter**

If you choose any one or more of the above, you have chosen the line of activity. The next step for you is to decide whether.

- **You want to be only owner (It means you what to be sole trader) or**
- **You want to take some more professionals as co-owners along with you (If means you what to from partnership with others as partners) or**
- **You want to be a global player by mobilizing large resources across the country/world**
- **You want to bring all like-minded people to share the benefits of the common enterprise (You want to promote a joint stock company) or**
- **You want to involve government in the IT business (here you want to suggest government to promote a public enterprise!)**

To decide this, it is necessary to know how to evaluate each of these alternatives.

Factors affecting the choice of form of business organization

Before we choose a particular form of business organization, let us study what factors affect such a choice? The following are the factors affecting the choice of a business organization:

1. **Easy to start and easy to close: The form of business organization should be such that it should be easy to close. There should not be hassles or long procedures in the process of setting up business or closing the same.**
2. **Division of labour: There should be possibility to divide the work among the available owners.**
3. **Large amount of resources: Large volume of business requires large volume of resources. Some forms of business organization do not permit to raise larger resources. Select the one which permits to mobilize the large resources.**
4. **Liability: The liability of the owners should be limited to the extent of money invested in business. It is better if their personal properties are not brought into business to make up the losses of the business.**
5. **Secrecy: The form of business organization you select should be such that it should permit to take care of the business secrets. We know that century old business units are still surviving only because they could successfully guard their business secrets.**
6. **Transfer of ownership: There should be simple procedures to transfer the ownership to the next legal heir.**
7. **Ownership, Management and control: If ownership, management and control are in the hands of one or a small group of persons, communication will be effective and coordination will be easier. Where ownership, management and control are widely distributed, it calls for a high degree of professional's skills to monitor the performance of the business.**
8. **Continuity: The business should continue forever and ever irrespective of the uncertainties in future.**
9. **Quick decision-making: Select such a form of business organization, which permits you to take decisions quickly and promptly. Delay in decisions may invalidate the relevance of the decisions.**
10. **Personal contact with customer: Most of the times, customers give us clues to improve business. So choose such a form, which keeps you close to the customers.**
11. **Flexibility: In times of rough weather, there should be enough flexibility to shift from one business to the other. The lesser the funds committed in a particular business, the better it is.**
12. **Taxation: More profit means more tax. Choose such a form, which permits to pay low tax.**

These are the parameters against which we can evaluate each of the available forms of business organizations.

SOLE TRADER

The sole trader is the simplest, oldest and natural form of business organization. It is also called sole proprietorship. 'Sole' means one. 'Sole trader' implies that there is only one trader who is the owner of the business.

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It is a one-man form of organization wherein the trader assumes all the risk of ownership carrying out the business with his own capital, skill and intelligence. He is the boss for himself. He has total operational freedom. He is the owner, Manager and controller. He has total freedom and flexibility. Full control lies with him. He can take his own decisions. He can choose or drop a particular product or business based on its merits. He need not discuss this with anybody. He is responsible for himself. This form of organization is popular all over the world. Restaurants, Supermarkets, pan shops, medical shops, hosiery shops etc.

Features

- **It is easy to start a business under this form and also easy to close.**
- **He introduces his own capital. Sometimes, he may borrow, if necessary**
- **He enjoys all the profits and in case of loss, he lone suffers.**
- **He has unlimited liability which implies that his liability extends to his personal properties in case of loss.**
- **He has a high degree of flexibility to shift from one business to the other.**
- **Business secretes can be guarded well**
- **There is no continuity. The business comes to a close with the death, illness or insanity of the sole trader. Unless, the legal heirs show interest to continue the business, the business cannot be restored.**
- **He has total operational freedom. He is the owner, manager and controller.**
- **He can be directly in touch with the customers.**
- **He can take decisions very fast and implement them promptly.**
- **Rates of tax, for example, income tax and so on are comparatively very low.**

Advantages

The following are the advantages of the sole trader from of business organization:

1. **Easy to start and easy to close: Formation of a sole trader from of organization is relatively easy even closing the business is easy.**
2. **Personal contact with customers directly: Based on the tastes and preferences of the customers the stocks can be maintained.**
3. **Prompt decision-making: To improve the quality of services to the customers, he can take any decision and implement the same promptly. He is the boss and he is responsible for his business Decisions relating to growth or expansion can be made promptly.**
4. **High degree of flexibility: Based on the profitability, the trader can decide to continue or change the business, if need be.**
5. **Secrecy: Business secrets can well be maintained because there is only one trader.**
6. **Low rate of taxation: The rate of income tax for sole traders is relatively very low.**
7. **Direct motivation: If there are profits, all the profits belong to the trader himself. In other words. If he works more hard, he will get more profits. This is the direct motivating factor. At the same time, if he does not take active interest, he may stand to lose badly also.**
8. **Total Control: The ownership, management and control are in the hands of the sole trader and hence it is easy to maintain the hold on business.**
9. **Minimum interference from government: Except in matters relating to public interest, government does not interfere in the business matters of the sole trader. The sole trader is free to fix price for his products/services if he enjoys monopoly market.**
10. **Transferability: The legal heirs of the sole trader may take the possession of the business.**

Disadvantages

The following are the disadvantages of sole trader form:

1. **Unlimited liability: The liability of the sole trader is unlimited. It means that the sole trader has to bring his personal property to clear off the loans of his business. From the legal point of view, he is not different from his business.**
2. **Limited amounts of capital: The resources a sole trader can mobilize cannot be very large and hence this naturally sets a limit for the scale of operations.**
3. **No division of labour: All the work related to different functions such as marketing, production, finance, labour and so on has to be taken care of by the sole trader himself. There is nobody else to take his burden. Family members and relatives cannot show as much interest as the trader takes.**
4. **Uncertainty: There is no continuity in the duration of the business. On the death, insanity of insolvency the business may be come to an end.**
5. **Inadequate for growth and expansion: This from is suitable for only small size, one-man-show type of organizations. This may not really work out for growing and expanding organizations.**

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6. **Lack of specialization:** The services of specialists such as accountants, market researchers, consultants and so on, are not within the reach of most of the sole traders.
7. **More competition:** Because it is easy to set up a small business, there is a high degree of competition among the small businessmen and a few who are good in taking care of customer requirements along can service.
8. **Low bargaining power:** The sole trader is the in the receiving end in terms of loans or supply of raw materials. He may have to compromise many times regarding the terms and conditions of purchase of materials or borrowing loans from the finance houses or banks.

PARTNERSHIP

Partnership is an improved from of sole trader in certain respects. Where there are like-minded persons with resources, they can come together to do the business and share the profits/losses of the business in an agreed ratio. Persons who have entered into such an agreement are individually called 'partners' and collectively called 'firm'. The relationship among partners is called a partnership.

Indian Partnership Act, 1932 defines partnership as the relationship between two or more persons who agree to share the profits of the business carried on by all or any one of them acting for all.

Features

1. **Relationship:** Partnership is a relationship among persons. It is relationship resulting out of an agreement.
2. **Two or more persons:** There should be two or more number of persons.
3. **There should be a business:** Business should be conducted.
4. **Agreement:** Persons should agree to share the profits/losses of the business
5. **Carried on by all or any one of them acting for all:** The business can be carried on by all or any one of the persons acting for all. This means that the business can be carried on by one person who is the agent for all other persons. Every partner is both an agent and a principal. Agent for other partners and principal for himself. All the partners are agents and the 'partnership' is their principal.

The following are the other features:

(a) **Unlimited liability:** The liability of the partners is unlimited. The partnership and partners, in the eye of law, and not different but one and the same. Hence, the partners have to bring their personal assets to clear the losses of the firm, if any.

(b) **Number of partners:** According to the Indian Partnership Act, the minimum number of partners should be two and the maximum number if restricted, as given below:

- 10 partners is case of banking business
- 20 in case of non-banking business

(c) **Division of labour:** Because there are more than two persons, the work can be divided among the partners based on their aptitude.

(d) **Personal contact with customers:** The partners can continuously be in touch with the customers to monitor their requirements.

(e) **Flexibility:** All the partners are likeminded persons and hence they can take any decision relating to business.

Partnership Deed

The written agreement among the partners is called 'the partnership deed'. It contains the terms and conditions governing the working of partnership. The following are contents of the partnership deed.

1. Names and addresses of the firm and partners
2. Nature of the business proposed
3. Duration
4. Amount of capital of the partnership and the ratio for contribution by each of the partners.
5. Their profit sharing ration (this is used for sharing losses also)
6. Rate of interest charged on capital contributed, loans taken from the partnership and the amounts drawn, if any, by the partners from their respective capital balances.
7. The amount of salary or commission payable to any partner
8. Procedure to value good will of the firm at the time of admission of a new partner, retirement of death of a partner
9. Allocation of responsibilities of the partners in the firm
10. Procedure for dissolution of the firm
11. Name of the arbitrator to whom the disputes, if any, can be referred to for settlement.
12. Special rights, obligations and liabilities of partners(s), if any.

KIND OF PARTNERS

The following are the different kinds of partners:

1. **Active Partner:** Active partner takes active part in the affairs of the partnership. He is also called working partner.
2. **Sleeping Partner:** Sleeping partner contributes to capital but does not take part in the affairs of the partnership.
3. **Nominal Partner:** Nominal partner is partner just for namesake. He neither contributes to capital nor takes part in the affairs of business. Normally, the nominal partners are those who have good business connections, and are well places in the society.
4. **Partner by Estoppels:** Estoppels means behavior or conduct. Partner by estoppels gives an impression to outsiders that he is the partner in the firm. In fact be neither contributes to capital, nor takes any role in the affairs of the partnership.
5. **Partner by holding out:** If partners declare a particular person (having social status) as partner and this person does not contradict even after he comes to know such declaration, he is called a partner by holding out and he is liable for the claims of third parties. However, the third parties should prove they entered into contract with the firm in the belief that he is the partner of the firm. Such a person is called partner by holding out.
6. **Minor Partner:** Minor has a special status in the partnership. A minor can be admitted for the benefits of the firm. A minor is entitled to his share of profits of the firm. The liability of a minor partner is limited to the extent of his contribution of the capital of the firm.

Right of partners

Every partner has right

(a) To take part in the management of business
(b) To express his opinion
(c) Of access to and inspect and copy and book of accounts of the firm
(d) To share equally the profits of the firm in the absence of any specific agreement to the contrary
(e) To receive interest on capital at an agreed rate of interest from the profits of the firm
(f) To receive interest on loans, if any, extended to the firm.
(g) To be indemnified for any loss incurred by him in the conduct of the business
(h) To receive any money spent by him in the ordinary and proper conduct of the business of the firm.

Advantages

The following are the advantages of the partnership from:

1. **Easy to form:** Once there is a group of like-minded persons and good business proposal, it is easy to start and register a partnership.
2. **Availability of larger amount of capital:** More amount of capital can be raised from more number of partners.
3. **Division of labour:** The different partners come with varied backgrounds and skills. This facilities division of labour.
4. **Flexibility:** The partners are free to change their decisions, add or drop a particular product or start a new business or close the present one and so on.
5. **Personal contact with customers:** There is scope to keep close monitoring with customers requirements by keeping one of the partners in charge of sales and marketing. Necessary changes can be initiated based on the merits of the proposals from the customers.
6. **Quick decisions and prompt action:** If there is consensus among partners, it is enough to implement any decision and initiate prompt action. Sometimes, it may more time for the partners on strategic issues to reach consensus.
7. **The positive impact of unlimited liability:** Every partner is always alert about his impending danger of unlimited liability. Hence he tries to do his best to bring profits for the partnership firm by making good use of all his contacts.

Disadvantages:

The following are the disadvantages of partnership:

1. **Formation of partnership is difficult:** Only like-minded persons can start a partnership. It is sarcastically said,' it is easy to find a life partner, but not a business partner'.
2. **Liability:** The partners have joint and several liabilities beside unlimited liability. Joint and several liability puts additional burden on the partners, which means that even the personal properties of the partner or

partners can be attached. Even when all but one partner become insolvent, the solvent partner has to bear the entire burden of business loss.

3. <u>Lack of harmony or cohesiveness:</u> It is likely that partners may not, most often work as a group with cohesiveness. This result in mutual conflicts, an attitude of suspicion and crisis of confidence. Lack of harmony results in delay in decisions and paralyses the entire operations.
4. <u>Limited growth:</u> The resources when compared to sole trader, a partnership may raise little more. But when compare to the other forms such as a company, resources raised in this form of organization are limited. Added to this, there is a restriction on the maximum number of partners.
5. <u>Instability:</u> The partnership form is known for its instability. The firm may be dissolved on death, insolvency or insanity of any of the partners.
6. <u>Lack of Public confidence:</u> Public and even the financial institutions look at the unregistered firm with a suspicious eye. Though registration of the firm under the Indian Partnership Act is a solution of such problem, this cannot revive public confidence into this form of organization overnight. The partnership can create confidence in other only with their performance.

JOINT STOCK COMPANY

The joint stock company emerges from the limitations of partnership such as joint and several liability, unlimited liability, limited resources and uncertain duration and so on. Normally, to take part in a business, it may need large money and we cannot foretell the fate of business. It is not literally possible to get into business with little money. Against this background, it is interesting to study the functioning of a joint stock company. The main principle of the joint stock company from is to provide opportunity to take part in business with a low investment as possible say Rs.1000. Joint Stock Company has been a boon for investors with moderate funds to invest.

The word ‘ company’ has a Latin origin, com means ‘ come together’, pany means ‘ bread’, joint stock company means, people come together to earn their livelihood by investing in the stock of company jointly.

Company Defined

Lord justice Lindley explained the concept of the joint stock company from of organization as ‘an association of many persons who contribute money or money’s worth to a common stock and employ it for a common purpose.

Features

This definition brings out the following features of the company:

1. <u>Artificial person:</u> The Company has no form or shape. It is an artificial person created by law. It is intangible, invisible and existing only, in the eyes of law.
2. <u>Separate legal existence</u>: it has an independence existence, it separate from its members. It can acquire the assets. It can borrow for the company. It can sue other if they are in default in payment of dues, breach of contract with it, if any. Similarly, outsiders for any claim can sue it. A shareholder is not liable for the acts of the company. Similarly, the shareholders cannot bind the company by their acts.
3. <u>Voluntary association of persons</u>: The Company is an association of voluntary association of persons who want to carry on business for profit. To carry on business, they need capital. So they invest in the share capital of the company.
4. <u>Limited Liability</u>: The shareholders have limited liability i.e., liability limited to the face value of the shares held by him. In other words, the liability of a shareholder is restricted to the extent of his contribution to the share capital of the company. The shareholder need not pay anything, even in times of loss for the company, other than his contribution to the share capital.
5. <u>Capital is divided into shares</u>: The total capital is divided into a certain number of units. Each unit is called a share. The price of each share is priced so low that every investor would like to invest in the company. The companies promoted by promoters of good standing (i.e., known for their reputation in terms of reliability character and dynamism) are likely to attract huge resources.
6. <u>Transferability of shares</u>: In the company form of organization, the shares can be transferred from one person to the other. A shareholder of a public company can cell sell his holding of shares at his will. However, the shares of a private company cannot be transferred. A private company restricts the transferability of the shares.
7. <u>Common Seal</u>: As the company is an artificial person created by law has no physical form, it cannot sign its name on a paper; so, it has a common seal on which its name is engraved. The common seal should affix every document or contract; otherwise the company is not bound by such a document or contract.
8. <u>Perpetual succession</u>: ‘Members may comes and members may go, but the company continues for ever and ever’ A. company has uninterrupted existence because of the right given to the shareholders to transfer the shares.

9. Ownership and Management separated: The shareholders are spread over the length and breadth of the country, and sometimes, they are from different parts of the world. To facilitate administration, the shareholders elect some among themselves or the promoters of the company as directors to a Board, which looks after the management of the business. The Board recruits the managers and employees at different levels in the management. Thus the management is separated from the owners.
10. Winding up: Winding up refers to the putting an end to the company. Because law creates it, only law can put an end to it in special circumstances such as representation from creditors of financial institutions, or shareholders against the company that their interests are not safeguarded. The company is not affected by the death or insolvency of any of its members.
11. The name of the company ends with 'limited': it is necessary that the name of the company ends with limited (Ltd.) to give an indication to the outsiders that they are dealing with the company with limited liability and they should be careful about the liability aspect of their transactions with the company.

Formation of Joint Stock company

There are two stages in the formation of a joint stock company. They are:

(a) To obtain Certificates of Incorporation
(b) To obtain certificate of commencement of Business

Certificate of Incorporation: The certificate of Incorporation is just like a 'date of birth' certificate. It certifies that a company with such and such a name is born on a particular day.

Certificate of commencement of Business: A private company need not obtain the certificate of commencement of business. It can start its commercial operations immediately after obtaining the certificate of Incorporation.

The persons who conceive the idea of starting a company and who organize the necessary initial resources are called promoters. The vision of the promoters forms the backbone for the company in the future to reckon with.

The promoters have to file the following documents, along with necessary fee, with a registrar of joint stock companies to obtain certificate of incorporation:

(a) Memorandum of Association: The Memorandum of Association is also called the charter of the company. It outlines the relations of the company with the outsiders. If furnishes all its details in six clause such as (ii) Name clause (II) situation clause (iii) objects clause (iv) Capital clause and (vi) subscription clause duly executed by its subscribers.
(b) Articles of association: Articles of Association furnishes the byelaws or internal rules government the internal conduct of the company.
(c) The list of names and address of the proposed directors and their willingness, in writing to act as such, in case of registration of a public company.
(d) A statutory declaration that all the legal requirements have been fulfilled. The declaration has to be duly signed by any one of the following: Company secretary in whole practice, the proposed director, legal solicitor, chartered accountant in whole time practice or advocate of High court.

The registrar of joint stock companies peruses and verifies whether all these documents are in order or not. If he is satisfied with the information furnished, he will register the documents and then issue a certificate of incorporation, if it is private company, it can start its business operation immediately after obtaining certificate of incorporation.

Advantages

The following are the advantages of a joint Stock Company

1. Mobilization of larger resources: A joint stock company provides opportunity for the investors to invest, even small sums, in the capital of large companies. The facilities rising of larger resources.
2. Separate legal entity: The Company has separate legal entity. It is registered under Indian Companies Act, 1956.
3. Limited liability: The shareholder has limited liability in respect of the shares held by him. In no case, does his liability exceed more than the face value of the shares allotted to him.
4. Transferability of shares: The shares can be transferred to others. However, the private company shares cannot be transferred.
5. Liquidity of investments: By providing the transferability of shares, shares can be converted into cash.
6. Inculcates the habit of savings and investments: Because the share face value is very low, this promotes the habit of saving among the common man and mobilizes the same towards investments in the company.
7. Democracy in management: the shareholders elect the directors in a democratic way in the general body meetings. The shareholders are free to make any proposals, question the practice of the management, suggest the possible remedial measures, as they perceive, The directors respond to the issue raised by the shareholders and have to justify their actions.
8. Economics of large scale production: Since the production is in the scale with large funds at

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9. **Continued existence: The Company has perpetual succession. It has no natural end. It continues forever and ever unless law put an end to it.**
10. **Institutional confidence: Financial Institutions prefer to deal with companies in view of their professionalism and financial strengths.**
11. **Professional management: With the larger funds at its disposal, the Board of Directors recruits competent and professional managers to handle the affairs of the company in a professional manner.**
12. **Growth and Expansion: With large resources and professional management, the company can earn good returns on its operations, build good amount of reserves and further consider the proposals for growth and expansion.**

All that shines is not gold. The company from of organization is not without any disadvantages. The following are the disadvantages of joint stock companies.

Disadvantages

1. **Formation of company is a long drawn procedure: Promoting a joint stock company involves a long drawn procedure. It is expensive and involves large number of legal formalities.**
2. **High degree of government interference: The government brings out a number of rules and regulations governing the internal conduct of the operations of a company such as meetings, voting, audit and so on, and any violation of these rules results into statutory lapses, punishable under the companies act.**
3. **Inordinate delays in decision-making: As the size of the organization grows, the number of levels in organization also increases in the name of specialization. The more the number of levels, the more is the delay in decision-making. Sometimes, so-called professionals do not respond to the urgencies as required. It promotes delay in administration, which is referred to 'red tape and bureaucracy'.**
4. **Lack or initiative: In most of the cases, the employees of the company at different levels show slack in their personal initiative with the result, the opportunities once missed do not recur and the company loses the revenue.**
5. **Lack of responsibility and commitment: In some cases, the managers at different levels are afraid to take risk and more worried about their jobs rather than the huge funds invested in the capital of the company lose the revenue.**
6. **Lack of responsibility and commitment: In some cases, the managers at different levels are afraid to take risk and more worried about their jobs rather than the huge funds invested in the capital of the company. Where managers do not show up willingness to take responsibility, they cannot be considered as committed. They will not be able to handle the business risks.**

PUBLIC ENTERPRISES

Public enterprises occupy an important position in the Indian economy. Today, public enterprises provide the substance and heart of the economy. Its investment of over Rs.10,000 crore is in heavy and basic industry, and infrastructure like power, transport and communications. The concept of public enterprise in Indian dates back to the era of pre-independence.

Genesis of Public Enterprises

In consequence to declaration of its goal as socialistic pattern of society in 1954, the Government of India realized that it is through progressive extension of public enterprises only, the following aims of our five years plans can be fulfilled.

- **Higher production**
- **Greater employment**
- **Economic equality, and**
- **Dispersal of economic power**

The government found it necessary to revise its industrial policy in 1956 to give it a socialistic bent.

Need for Public Enterprises

The Industrial Policy Resolution 1956 states the need for promoting public enterprises as follows:

- **To accelerate the rate of economic growth by planned development**
- **To speed up industrialization, particularly development of heavy industries and to expand public sector and to build up a large and growing cooperative sector.**
- **To increase infrastructure facilities**
- **To disperse the industries over different geographical areas for balanced regional development**
- **To increase the opportunities of gainful employment**
- **To help in raising the standards of living**

- **To reducing disparities in income and wealth (By preventing private monopolies and curbing concentration of economic power and vast industries in the hands of a small number of individuals)**

Achievements of public Enterprises

The achievements of public enterprise are vast and varied. They are:

1. **Setting up a number of public enterprises in basic and key industries**
2. **Generating considerably large employment opportunities in skilled, unskilled, supervisory and managerial cadres.**
3. **Creating internal resources and contributing towards national exchequer for funds for development and welfare.**
4. **Bringing about development activities in backward regions, through locations in different areas of the country.**
5. **Assisting in the field of export promotion and conservation of foreign exchange.**
6. **Creating viable infrastructure and bringing about rapid industrialization (ancillary industries developed around the public sector as its nucleus).**
7. **Restricting the growth of private monopolies**
8. **Stimulating diversified growth in private sector**
9. **Taking over sick industrial units and putting them, in most of the vases, in order,**
10. **Creating financial systems, through a powerful networking of financial institutions, development and promotional institutions, which has resulted in social control and social orientation of investment, credit and capital management systems.**
11. **Benefiting the rural areas, priority sectors, small business in the fields of industry, finance, credit, services, trade, transport, consultancy and so on.**

Let us see the different forms of public enterprise and their features now.

Forms of public enterprises

Public enterprises can be classified into three forms:

(a) **Departmental undertaking**
(b) **Public corporation**
(c) **Government company**

These are explained below

Departmental Undertaking

This is the earliest from of public enterprise. Under this form, the affairs of the public enterprise are carried out under the overall control of one of the departments of the government. The government department appoints a managing director (normally a civil servant) for the departmental undertaking. He will be given the executive authority to take necessary decisions. The departmental undertaking does not have a budget of its own. As and when it wants, it draws money from the government exchequer and when it has surplus money, it deposits it in the government exchequer. However, it is subject to budget, accounting and audit controls.

Examples for departmental undertakings are Railways, Department of Posts, All India Radio, Doordarshan, Defense undertakings like DRDL, DLRL, ordinance factories, and such.

Features

1. **Under the control of a government department: The departmental undertaking is not an independent organization. It has no separate existence. It is designed to work under close control of a government department. It is subject to direct ministerial control.**
2. **More financial freedom: The departmental undertaking can draw funds from government account as per the needs and deposit back when convenient.**
3. **Like any other government department: The departmental undertaking is almost similar to any other government department**
4. **Budget, accounting and audit controls: The departmental undertaking has to follow guidelines (as applicable to the other government departments) underlying the budget preparation, maintenance of accounts, and getting the accounts audited internally and by external auditors.**
5. **More a government organization, less a business organization . The set up of a departmental undertaking is more rigid, less flexible, slow in responding to market needs.**

Advantages

1. **Effective control: Control is likely to be effective because it is directly under the Ministry.**
2. **Responsible Executives: Normally the administration is entrusted to a senior civil servant. The administration will be organized and effective.**

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3. **Less scope for mystification of funds**: Departmental undertaking does not draw any money more than is needed, that too subject to ministerial sanction and other controls. So chances for mis-utilisation are low.
4. **Adds to Government revenue**: The revenue of the government is on the rise when the revenue of the departmental undertaking is deposited in the government account.

Disadvantages

1. **Decisions delayed**: Control is centralized. This results in lower degree of flexibility. Officials in the lower levels cannot take initiative. Decisions cannot be fast and actions cannot be prompt.
2. **No incentive to maximize earnings**: The departmental undertaking does not retain any surplus with it. So there is no inventive for maximizing the efficiency or earnings.
3. **Slow response to market conditions**: Since there is no competition, there is no profit motive; there is no incentive to move swiftly to market needs.
4. **Redtapism and bureaucracy**: The departmental undertakings are in the control of a civil servant and under the immediate supervision of a government department. Administration gets delayed substantially.
5. **Incidence of more taxes**: At times, in case of losses, these are made up by the government funds only. To make up these, there may be a need for fresh taxes, which is undesirable.

Any business organization to be more successful needs to be more dynamic, flexible, and responsive to market conditions, fast in decision marking and prompt in actions. None of these qualities figure in the features of a departmental undertaking. It is true that departmental undertaking operates as a extension to the government. With the result, the government may miss certain business opportunities. So as not to miss business opportunities, the government has thought of another form of public enterprise, that is, Public corporation.

PUBLIC CORPORATION

Having released that the routing government administration would not be able to cope up with the demand of its business enterprises, the Government of India, in 1948, decided to organize some of its enterprises as statutory corporations. In pursuance of this, Industrial Finance Corporation, Employees' State Insurance Corporation was set up in 1948.

Public corporation is a 'right mix of public ownership, public accountability and business management for public ends'. The public corporation provides machinery, which is flexible, while at the same time retaining public control.

Definition

A public corporation is defined as a 'body corporate create by an Act of Parliament or Legislature and notified by the name in the official gazette of the central or state government. It is a corporate entity having perpetual succession, and common seal with power to acquire, hold, dispose off property, sue and be sued by its name".

Examples of a public corporation are Life Insurance Corporation of India, Unit Trust of India, Industrial Finance Corporation of India, Damodar Valley Corporation and others.

Features

1. **A body corporate**: It has a separate legal existence. It is a separate company by itself. If can raise resources, buy and sell properties, by name sue and be sued.
2. **More freedom and day-to-day affairs**: It is relatively free from any type of political interference. It enjoys administrative autonomy.
3. **Freedom regarding personnel**: The employees of public corporation are not government civil servants. The corporation has absolute freedom to formulate its own personnel policies and procedures, and these are applicable to all the employees including directors.
4. **Perpetual succession**: A statute in parliament or state legislature creates it. It continues forever and till a statue is passed to wind it up.
5. **Financial autonomy**: Through the public corporation is fully owned government organization, and the initial finance are provided by the Government, it enjoys total financial autonomy, Its income and expenditure are not shown in the annual budget of the government, it enjoys total financial autonomy. Its income and expenditure are not shown in the annual budget of the government. However, for its freedom it is restricted regarding capital expenditure beyond the laid down limits, and raising the capital through capital market.
6. **Commercial audit**: Except in the case of banks and other financial institutions where chartered accountants are auditors, in all corporations, the audit is entrusted to the comptroller and auditor general of India.
7. **Run on commercial principles**: As far as the discharge of functions, the corporation shall act as far as possible on sound business principles.

Advantages

1. **Independence, initiative and flexibility: The corporation has an autonomous set up. So it is independent, take necessary initiative to realize its goals, and it can be flexible in its decisions as required.**
2. **Scope for Redtapism and bureaucracy minimized: The Corporation has its own policies and procedures. If necessary they can be simplified to eliminate redtapism and bureaucracy, if any.**
3. **Public interest protected: The corporation can protect the public interest by making its policies more public friendly, Public interests are protected because every policy of the corporation is subject to ministerial directives and board parliamentary control.**
4. **Employee friendly work environment: Corporation can design its own work culture and train its employees accordingly. It can provide better amenities and better terms of service to the employees and thereby secure greater productivity.**
5. **Competitive prices: the corporation is a government organization and hence can afford with minimum margins of profit, It can offer its products and services at competitive prices.**
6. **Economics of scale: By increasing the size of its operations, it can achieve economics of large-scale production.**
7. **Public accountability: It is accountable to the Parliament or legislature; it has to submit its annual report on its working results.**

Disadvantages

1. **Continued political interference: the autonomy is on paper only and in reality, the continued.**
2. **Misuse of Power: In some cases, the greater autonomy leads to misuse of power. It takes time to unearth the impact of such misuse on the resources of the corporation. Cases of misuse of power defeat the very purpose of the public corporation.**
3. **Burden for the government: Where the public corporation ignores the commercial principles and suffers losses, it is burdensome for the government to provide subsidies to make up the losses.**

Government Company

Section 617 of the Indian Companies Act defines a government company as "any company in which not less than 51 percent of the paid up share capital" is held by the Central Government or by any State Government or Governments or partly by Central Government and partly by one or more of the state Governments and includes and company which is subsidiary of government company as thus defined".

A government company is the right combination of operating flexibility of privately organized companies with the advantages of state regulation and control in public interest.

Government companies differ in the degree of control and their motive also.

Some government companies are promoted as

- **industrial undertakings (such as Hindustan Machine Tools, Indian Telephone Industries, and so on)**
- **Promotional agencies (such as National Industrial Development Corporation, National Small Industries Corporation, and so on) to prepare feasibility reports for promoters who want to set up public or private companies.**
- **Agency to promote trade or commerce. For example, state trading corporation, Export Credit Guarantee Corporation and so such like.**
- **A company to take over the existing sick companies under private management (E.g. Hindustan Shipyard)**
- **A company established as a totally state enterprise to safeguard national interests such as Hindustan Aeronautics Ltd. And so on.**
- **Mixed ownership company in collaboration with a private consult to obtain technical know how and guidance for the management of its enterprises, e.g. Hindustan Cables)**

Features

The following are the features of a government company:

1. **Like any other registered company: It is incorporated as a registered company under the Indian companies Act. 1956. Like any other company, the government company has separate legal existence. Common seal, perpetual succession, limited liability, and so on. The provisions of the Indian Companies Act apply for all matters relating to formation, administration and winding up. However, the government has a right to exempt the application of any provisions of the government companies.**
2. **Shareholding: The majority of the share are held by the Government, Central or State, partly by the Central and State Government(s), in the name of the President of India, It is also common that the collaborators and allotted some shares for providing the transfer of technology.**

3. **<u>Directors are nominated</u>: As the government is the owner of the entire or majority of the share capital of the company, it has freedom to nominate the directors to the Board. Government may consider the requirements of the company in terms of necessary specialization and appoints the directors accordingly.**
4. **<u>Administrative autonomy and financial freedom</u>: A government company functions independently with full discretion and in the normal administration of affairs of the undertaking.**
5. **<u>Subject to ministerial control</u>: Concerned minister may act as the immediate boss. It is because it is the government that nominates the directors, the minister issue directions for a company and he can call for information related to the progress and affairs of the company any time.**

<u>Advantages</u>

1. **<u>Formation is easy</u>: There is no need for an Act in legislature or parliament to promote a government company. A Government company can be promoted as per the provisions of the companies Act. Which is relatively easier?**
2. **<u>Separate legal entity</u>: It retains the advantages of public corporation such as autonomy, legal entity.**
3. **<u>Ability to compete:</u> It is free from the rigid rules and regulations. It can smoothly function with all the necessary initiative and drive necessary to complete with any other private organization. It retains its independence in respect of large financial resources, recruitment of personnel, management of its affairs, and so on.**
4. **<u>Flexibility</u>: A Government company is more flexible than a departmental undertaking or public corporation. Necessary changes can be initiated, which the framework of the company law. Government can, if necessary, change the provisions of the Companies Act. If found restricting the freedom of the government company. The form of Government Company is so flexible that it can be used for taking over sick units promoting strategic industries in the context of national security and interest.**
5. **<u>Quick decision and prompt actions</u>: In view of the autonomy, the government company take decision quickly and ensure that the actions and initiated promptly.**
6. **<u>Private participation facilitated</u>: Government company is the only from providing scope for private participation in the ownership. The facilities to take the best, necessary to conduct the affairs of business, from the private sector and also from the public sector.**

<u>Disadvantages</u>

1. **<u>Continued political and government interference</u>: Government seldom leaves the government company to function on its own. Government is the major shareholder and it dictates its decisions to the Board. The Board of Directors gets these approved in the general body. There were a number of cases where the operational polices were influenced by the whims and fancies of the civil servants and the ministers.**
2. **<u>Higher degree of government control</u>: The degree of government control is so high that the government company is reduced to mere adjuncts to the ministry and is, in majority of the cases, not treated better than the subordinate organization or offices of the government.**
3. **<u>Evades constitutional responsibility</u>: A government company is creating by executive action of the government without the specific approval of the parliament or Legislature.**
4. **<u>Poor sense of attachment or commitment</u>: The members of the Board of Management of government companies and from the ministerial departments in their ex-officio capacity. The lack the sense of attachment and do not reflect any degree of commitment to lead the company in a competitive environment.**
5. **<u>Divided loyalties</u>: The employees are mostly drawn from the regular government departments for a defined period. After this period, they go back to their government departments and hence their divided loyalty dilutes their interest towards their job in the government company.**
6. **<u>Flexibility on paper:</u> The powers of the directors are to be approved by the concerned Ministry, particularly the power relating to borrowing, increase in the capital, appointment of top officials, entering into contracts for large orders and restrictions on capital expenditure. The government companies are rarely allowed to exercise their flexibility and independence.**

<u>QUESTIONS</u>

1. **Define a joint stock company & explain its basic features, advantages & disadvantages**
2. **Write short notes pm (a) Sole trader (b) Stationery corporation.**
3. **Explain in basic features of Government Company from of public enterprise.**
4. **What do you mean by sole proprietorship? Explain its meant and limitations.**
5. **Define partnership from of business. Explain its salient features.**
6. **What are the factors governing choice of form of business organization.**
7. **Write short notes on (a) public company (b) Government Company (c) Private Company**
8. **What is the need of public enterprises? Explain the recent achievement of public enterprises**

9. What is a partnership deed? Discuss the main contents partnership deed.
10. Write short note on (a) Departmental undertaking (b) articles of association
11. 'Small is beautiful'. Do you think, this is the reason for the survival of the sole trader from of business organization? Support your answer with suitable examples.

QUIZ

1. A Partnership firm can be formed with a minimum of Two Partners and it can have a maximum of _______ Partners . ( )
(a) 50 (b) 40 (c) 20 (d) 30

2. "People may come and people may leave, but I go on forever" is Applicable to ______ Business organization. ( )
(a) Sole proprietorship (b) Partnership (c) Company (d) Joint Hindu Family

3. ______ is Supreme Authority for Company Organization. ( )
(a) Directors (b) Debenture holders (c) Share holders (d) Creditors

4. "One man one vote" Principle is adopted in ______. ( )
(a) Partnership firms (b) Company (c) Co-operative enterprises (d) Hindu family business

5. The management of 'Joint Hindu Family' business vests in the eldest member of the family, called _____. ( )
(a) Director (b) Grand father (c) Kartha (d) Manager

6. Minimum Two and maximum ____ members are permitted in Private limited company. ( )
(a) Un-limited (b) 20 (c) 50 (d) 10

7. Minimum ___ and maximum ____ members are permitted in Public limited company. ( )
(a) 50 ; Un-limited (b) 20 ; 50 (c) 7 ; Un-limited (d) 7 ; 50

8. Liability of sole proprietor is _______________. ( )
(a) Limited (b) Minimum (c) Un-limited (d) None

9. Liability of Shareholder _______________. ( )
(a) Un-limited (b) Maximum (c) Limited to the share capital (d) None

10. Certificate of commencement of business should be obtained by ___ company to start its functions. ( )
(a) Private (b) Statutory (c) Public (d) Chartered

11. Company operates in more than one Country is called as _____. ( )
(a) Private company (b) Government company (c) Multinational company (d) Indian company

12. ____ is not required to private company to start its functions. ( )
(a) Certificate of incorporation (b) Registration (c) Certificate of commencement of business (d) None

13. ____ partner can enjoy profits but no liability for losses. ( )
(a) Active (b) Sleeping (c) Minor (d) Nominal

14. In public sector unit's ownership is in the hands of _____. ( )
(a) Private persons (b) Public (c) Government (d) None

15. Promoting balanced regional development is one of the objectives of _______ units ( )
(a) Private sector (b) Joint sector (c) Public sector (d) None

16. If either state government of central government or both have got not less than 51% of share in the organization. Then that is called____. ( )
(a) Private org. (b) Partnership org. (c) Government org. (d) Joint sector org.

Note: Answer is "C" for all the above questions.

UNIT- VI

CAPITAL AND CAPITAL BUDGETING

Introduction

Finance is the prerequisite to commence and vary on business. It is rightly said to be the lifeblood of the business. No growth and expansion of business can take place without sufficient finance. It shows that no

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business activity is possible without finance. This is why; every business has to make plans regarding acquisition and utilization of funds.

However efficient a firm may be in terms of production as well as marketing if it ignores the proper management of flow of funds it certainly lands in financial crunch and the very survival of the firm would be at a stake.

Function of finance

According to B. O. Wheeler, Financial Management is concerned with the acquisition and utiliasation of capital funds in meeting the financial needs and overall objectives of a business enterprise. Thus the primary function of finance is to acquire capital funds and put them for proper utilization, with which the firm's objectives are fulfilled. The firm should be able to procure sufficient funds on reasonable terms and conditions and should exercise proper control in applying them in order to earn a good rate of return, which in turn allows the firm to reward the sources of funds reasonably, and leaves the firm with good surplus to grow further. These activities viz. financing, investing and dividend payment are not sequential they are performed simultaneously and continuously. Thus, the Financial Management can be broken down in to three major decisions or functions of finance. They are: (i) the investment decision, (ii) the financing decision and (iii) the dividend policy decision.

Investment Decision

The investment decision relates to the selection of assets in which funds will be invested by a firm. The assets as per their duration of benefits, can be categorized into two groups: (i) long-term assets which yield a return over a period of time in future (ii) short-term or current assents which in the normal course of business are convertible into cash usually with in a year. Accordingly, the asset selection decision of a firm is of two types. The investment in long-term assets is popularly known as capital budgeting and in short-term assets, working capital management.

1. **Capital budgeting: Capital budgeting – the long – term investment decision – is probably the most crucial financial decision of a firm. It relates to the selection of an assent or investment proposal or course of action that benefits are likely to be available in future over the lifetime of the project.**

   The long-term investment may relate to acquisition of new asset or replacement of old assets. Whether an asset will be accepted or not will depend upon the relative benefits and returns associated with it. The measurement of the worth of the investment proposals is, therefore, a major element in the capital budgeting exercise. The second element of the capital budgeting decision is the analysis of risk and uncertainty as the benefits from the investment proposals pertain the future, which is uncertain. They have to be estimated under various assumptions and thus there is an element of risk involved in the exercise. The return from the capital budgeting decision should, therefore, be evaluated in relation to the risk associated with it.

   The third and final element is the ascertainment of a certain norm or standard against which the benefits are to be judged. The norm is known by different names such as cut-off rate, hurdle rate, required rate, minimum rate of return and so on. This standard is broadly expressed in terms of the cost of capital is, thus, another major aspect of the capital; budgeting decision. In brief, the main elements of the capital budgeting decision are: (i) The total assets and their composition (ii) The business risk complexion of the firm, and (iii) concept and measurement of the cost of capital.
2. **Working Capital Management: Working capital management is concerned with the management of the current assets. As we know, the short-term survival is a pre-requisite to long-term success. The major thrust of working capital management is the trade-off between profitability and risk (liquidity), which are inversely related to each other. If a firm does not have adequate working capital it may not have the ability to meet its current obligations and thus invite the risk of bankrupt. One the other hand if the current assets are too large the firm will be loosing the opportunity of making a good return and thus may not serve the requirements of suppliers of funds. Thus, the profitability and liquidity are the two major dimensions of working capital management. In addition, the individual current assets should be efficiently managed so that neither inadequate nor unnecessary funds are locked up.**

Finance Decision

The second major decision involved in financial management is the financing decision, which is concerned with the financing – mix or capital structure of leverage. The term capital structure refers to the combination of debt (fixed interest sources of financing) and equity capital (variable – dividend securities/source of funds). The financing decision of a firm relates to the choice of the proportion of these sources to finance the investment requirements. A higher proportion of debt implies a higher return to the shareholders and also the higher financial risk and vice versa. A proper balance between debt and equity is a must to ensure a trade – off between risk and return to the shareholders. A capital structure with a reasonable proportion of debt and equity capital is called the optimum capital structure.

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The second aspect of the financing decision is the determination of an appropriate capital structure, which will result, is maximum return to the shareholders and in turn maximizes the worth of the firm. Thus, the financing decision covers two inter-related aspects: (a) capital structure theory, and (b) capital structure decision.

Dividend Policy decision

The third major decision of financial management is relating to dividend policy. The firm has two alternatives with regard to management of profits of a firm. They can be either distributed to the shareholder in the form of dividends or they can be retained in the business or even distribute some portion and retain the remaining. The course of action to be followed is a significant element in the dividend decision. The dividend pay out ratio i. e. the proportion of net profits to be paid out to the shareholders should be in tune with the investment opportunities available within the firm. The second major aspect of the dividend decision is the study of factors determining dividend policy of a firm in practice.

WORKING CAPITAL ANALYSIS

Finance is required for two purpose viz. for it establishment and to carry out the day-to-day operations of a business. Funds are required to purchase the fixed assets such as plant, machinery, land, building, furniture, etc, on long-term basis. Investments in these assets represent that part of firm's capital, which is blocked on a permanent of fixed basis and is called fixed capital. Funds are also needed for short-term purposes such as the purchase of raw materials, payment of wages and other day-to-day expenses, etc. and these funds are known as working capital. In simple words working capital refers that part of the firm's capital, which is required for financing short term or current assets such as cash, marketable securities, debtors and inventories. The investment in these current assets keeps revolving and being constantly converted into cash and which in turn financed to acquire current assets. Thus the working capital is also known as revolving or circulating capital or short-term capital.

Concept of working capital

There are two concepts of working capital:

1. Gross working capital
2. Net working capital

Gross working capital:

In the broader sense, the term working capital refers to the gross working capital. The notion of the gross working capital refers to the capital invested in total current assets of the enterprise. Current assets are those assets, which in the ordinary course of business, can be converted into cash within a short period, normally one accounting year.

Examples of current assets:

1. Cash in hand and bank balance
2. Bills receivables or Accounts Receivables
3. Sundry Debtors (less provision for bad debts)
4. Short-term loans and advances.
5. Inventories of stocks, such as:
    (a) Raw materials
    (b) Work – in process
    (c) Stores and spares
    (d) Finished goods
6. Temporary Investments of surplus funds.
7. Prepaid Expenses
8. Accrued Incomes etc.

Net working capital:

In a narrow sense, the term working capital refers to the net working capital. Networking capital represents the excess of current assets over current liabilities.

Current liabilities are those liabilities, which are intend to be paid in the ordinary course of business within a short period, normally one accounting year out of the current assets or the income of the business. Net working capital may be positive or negative. When the current assets exceed the current liabilities net working capital is positive and the negative net working capital results when the liabilities are more then the current assets.

Examples of current liabilities:

1. Bills payable
2. Sundry Creditors or Accounts Payable.
3. Accrued or Outstanding Expanses.
4. Short term loans, advances and deposits.
5. Dividends payable
6. Bank overdraft
7. Provision for taxation etc.

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Classification or kinds of working capital

Working capital may be classified in two ways:

a. **On the basis of concept.**
b. **On the basis of time permanency**

On the basis of concept, working capital is classified as gross working capital and net working capital is discussed earlier. This classification is important from the point of view of the financial manager. On the basis of time, working capital may be classified as:

1. **Permanent or fixed working capital**
2. **Temporary of variable working capital**

1. **Permanent or fixed working capital: There is always a minimum level of current assets, which is continuously required by the enterprise to carry out its normal business operations and this minimum is known as permanent of fixed working capital. For example, every firm has to maintain a minimum level of raw materials, work in process; finished goods and cash balance to run the business operations smoothly and profitably. This minimum level of current assets is permanently blocked in current assets. As the business grows, the requirement of permanent working capital also increases due to the increases in current assets. The permanent working capital can further be classified into regular working capital and reserve working capital. Regular working capital is the minimum amount of working capital required to ensure circulation of current assets from cash to inventories, from inventories to receivables and from receivable to cash and so on. Reserve working capital is the excess amount over the requirement for regular working capital which may be provided for contingencies that may arise at unstated period such as strikes, rise in prices, depression etc.**
2. **Temporary or variable working capital: Temporary or variable working capital is the amount of working capital, which is required to meet the seasonal demands and some special exigencies. Thus the variable working capital can be further classified into seasonal working capital and special working capital. While seasonal working capital is required to meet certain seasonal demands, the special working capital is that part of working capital which is required to meet special exigencies such as launching of extensive marketing campaigns, for conducting research etc.**
   Temporary working capital differs from permanent working capital in the sense that it is required for short periods and cannot be permanently employed gainfully in the business. Figures given below illustrate the different between permanent and temporary working capital.

Importance of working capital

Working capital is refereed to be the lifeblood and nerve center of a business. Working capital is as essential to maintain the smooth functioning of a business as blood circulation in a human body. No business can run successfully with out an adequate amount of working capital. The main advantages of maintaining adequate amount of working capital are as follows:

1. **Solvency of the business: Adequate working capital helps in maintaining solvency of the business by providing uninterrupted flow of production.**
2. **Good will: Sufficient working capital enables a business concern to make prompt payment and hence helps in creating and maintaining good will.**
3. **Easy loans: A concern having adequate working capital, high solvency and good credit standing can arrange loans from banks and others on easy and favorable terms.**
4. **Cash Discounts: Adequate working capital also enables a concern to avail cash discounts on the purchases and hence it reduces costs.**
5. **Regular supply of raw materials: Sufficient working capital ensures regular supply of raw materials and continuous production.**
6. **Regular payments of salaries wages and other day to day commitments: A company which has ample working capital can make regular payment of salaries, wages and other day to day commitments which raises the morale of its employees, increases their efficiency, reduces wastage and cost and enhances production and profits.**
7. **Exploitation of favorable market conditions: The concerns with adequate working capital only can exploit favorable market conditions such as purchasing its requirements in bulk when the prices are lower.**
8. **Ability to face crisis: Adequate working capital enables a concern to face business crisis in emergencies.**
9. **Quick and regular return on Investments: Every investor wants a quick and regular return on his investment. Sufficiency of working capital enables a concern to pay quick and regular dividends to its investors, as there may not be much pressure to plough back profits. This gains the confidence of its investors and creates a favorable market to raise additional funds in the future.**

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10. **High morale:** Adequacy of working capital creates an environment of security, confidence, and high morale and creates overall efficiency in a business. Every business concern should have adequate working capital to run its business operations. It should have neither redundant excess working capital nor inadequate shortage of working capital. Both, excess as well as short working capital positions are bad for any business. However, out of the two, it is the inadequacy of working capital which is more dangerous from the point of view of the firm.

The need or objectives of working capital

The need for working capital arises mainly due to the time gap between production and realization of cash. The process of production and sale cannot be done instantaneously and hence the firm needs to hold the current assets to fill-up the time gaps. There are time gaps in purchase of raw materials and production; production and sales: and sales and realization of cash. The working capital is needed mainly for the following purposes:

1. For the purchase of raw materials.
2. To pay wages, salaries and other day-to-day expenses and overhead cost such as fuel, power and office expenses, etc.
3. To meet the selling expenses such as packing, advertising, etc.
4. To provide credit facilities to the customers and
5. To maintain the inventories of raw materials, work-in-progress, stores and spares and finishes stock etc.

Generally, the level of working capital needed depends upon the time gap (known as operating cycle) and the size of operations. Greater the size of the business unit generally, larger will be the requirements of working capital. The amount of working capital needed also goes on increasing with the growth and expansion of business. Similarly, the larger the operating cycle, the larger the requirement for working capital. There are many other factors, which influence the need of working capital in a business, and these are discussed below in the following pages.

Factors determining the working capital requirements

There are a large number of factors such as the nature and size of business, the character of their operations, the length of production cycle, the rate of stock turnover and the state of economic situation etc. that decode requirement of working capital. These factors have different importance and influence on firm differently. In general following factors generally influence the working capital requirements.

1. **Nature or character of business**: The working capital requirements of a firm basically depend upon the nature of its business. Public utility undertakings like electricity, water supply and railways need very limited working capital as their sales are on cash and are engaged in provision of services only. On the other hand, trading firms require more investment in inventories, receivables and cash and such they need large amount of working capital. The manufacturing undertakings also require sizable working capital.
2. **Size of business or scale of operations**: The working capital requirements of a concern are directly influenced by the size of its business, which may be measured in terms of scale of operations. Greater the size of a business unit, generally, larger will be the requirements of working capital. However, in some cases, even a smaller concern may need more working capital due to high overhead charges, inefficient use of available resources and other economic disadvantages of small size.
3. **Production policy**: If the demand for a given product is subject to wide fluctuations due to seasonal variations, the requirements of working capital, in such cases, depend upon the production policy. The production could be kept either steady by accumulating inventories during stack periods with a view to meet high demand during the peck season or the production could be curtailed during the slack season and increased during the peak season. If the policy is to keep the production steady by accumulating inventories it will require higher working capital.
4. **Manufacturing process/Length of production cycle**: In manufacturing business, the requirements of working capital will be in direct proportion to the length of manufacturing process. Longer the process period of manufacture, larger is the amount of working capital required, as the raw materials and other supplies have to be carried for a longer period.
5. **Seasonal variations:** If the raw material availability is seasonal, they have to be bought in bulk during the season to ensure an uninterrupted material for the production. A huge amount is, thus, blocked in the form of material, inventories during such season, which give rise to more working capital requirements. Generally, during the busy season, a firm requires larger working capital then in the slack season.
6. **Working capital cycle**: In a manufacturing concern, the working capital cycle starts with the purchase of raw material and ends with the realization of cash from the sale of finished products. This cycle involves purchase of raw materials and stores, its conversion into stocks of finished goods through work–in progress with progressive increment of labour and service costs, conversion of finished stock into sales, debtors and receivables and ultimately realization of cash. This cycle continues again from cash to purchase of raw materials and so on. In general the longer the operating cycle, the larger the requirement of working capital.

7. <u>Credit policy</u>: The credit policy of a concern in its dealings with debtors and creditors influences considerably the requirements of working capital. A concern that purchases its requirements on credit requires lesser amount of working capital compared to the firm, which buys on cash. On the other hand, a concern allowing credit to its customers shall need larger amount of working capital compared to a firm selling only on cash.

8. <u>Business cycles</u>: Business cycle refers to alternate expansion and contraction in general business activity. In a period of boom, i.e., when the business is prosperous, there is a need for larger amount of working capital due to increase in sales. On the contrary, in the times of depression, i.e., when there is a down swing of the cycle, the business contracts, sales decline, difficulties are faced in collection from debtors and firms may have to hold large amount of working capital.

9. <u>Rate of growth of business</u>: The working capital requirements of a concern increase with the growth and expansion of its business activities. The retained profits may provide for a part of working capital but the fast growing concerns need larger amount of working capital than the amount of undistributed profits.

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SOURCE OF FINANCE

Incase of proprietorship business, the individual proprietor generally invests his own savings to start with, and may borrow money on his personal security or the security of his assets from others. Similarly, the capital of a partnership from consists partly of funds contributed by the partners and partly of borrowed funds. But the company from of organization enables the promoters to raise necessary funds from the public who may contribute capital and become members (share holders) of the company. In course of its business, the company can raise loans directly from banks and financial institutions or by issue of securities (debentures) to the public. Besides, profits earned may also be reinvested instead of being distributed as dividend to the shareholders.

Thus for any business enterprise, there are two sources of finance, viz, funds contributed by owners and funds available from loans and credits. In other words the financial resources of a business may be own funds and borrowed funds.

Owner funds or ownership capital:

The ownership capital is also known as 'risk capital' because every business runs the risk of loss or low profits, and it is the owner who bears this risk. In the event of low profits they do not have adequate return on their investment. If losses continue the owners may be unable to recover even their original investment. However, in times of prosperity and in the case of a flourishing business the high level of profits earned accrues entirely to the owners of the business. Thus, after paying interest on loans at a fixed rate, the owners may enjoy a much higher rate of return on their investment. Owners contribute risk capital also in the hope that the value of the firm will appreciate as a result of higher earnings and growth in the size of the firm.

The second characteristic of this source of finance is that ownership capital remains permanently invested in the business. It is not refundable like loans or borrowed capital. Hence a large part of it is generally used for a acquiring long – lived fixed assets and to finance a part of the working capital which is permanently required to hold a minimum level of stock of raw materials, a minimum amount of cash, etc.

Another characteristic of ownership capital related to the management of business. It is on the basis of their contribution to equity capital that owners can exercise their right of control over the management of the firm. Managers cannot ignore the owners in the conduct of business affairs. The sole proprietor directly controls his own business. In a partnership firm, the active partner will take part in the management of business. A company is managed by directors who are elected by the members (shareholders).

Merits:

Arising out of its characteristics, the advantages of ownership capital may be briefly stated as follows:

1. **It provides risk capital**
2. **It is a source of permanent capital**
3. **It is the basis on which owners 'acquire their right of control over management**
4. **It does not require security of assets to be offered to raise ownership capital**

Limitations:

There are also certain limitations of ownership capital as a source of finance. These are:

The amount of capital, which may be raised as owners fund depends on the number of persons, prepared to take the risks involved. In a partnership confer, a few persons cannot provide ownership capital beyond a certain limit and this limitation is more so in case of proprietary form of organization.

A joint stock company can raise large amount by issuing shares to the public. Bus it leads to an increased number of people having ownership interest and right of control over management. This may reduce the original investors' power of control over management. Being a permanent source of capital, ownership funds are not refundable as long as the company is in existence, even when the funds remain idle.

A company may find it difficult to raise additional ownership capital unless it has high profit-earning capacity or growth prospects. Issue of additional shares is also subject to so many legal and procedural restrictions.

Borrowed funds and borrowed capital: It includes all funds available by way of loans or credit. Business firms raise loans for specified periods at fixed rates of interest. Thus borrowed funds may serve the purpose of long-term, medium-term or short-term finance. The borrowing is generally at against the security of assets from banks and financial institutions. A company to borrow the funds can also issue various types of debentures.

Interest on such borrowed funds is payable at half yearly or yearly but the principal amount is being repaid only at the end of the period of loan. These interest and principal payments have to be met even if the earnings are low or there is loss. Lenders and creditors do not have any right of control over the management of the borrowing firm. But they can sue the firm in a law court if there is default in payment, interest or principal back.

Merits:

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From the business point of view, borrowed capital has several merits.

1. **It does not affect the owner's control over management.**
2. **Interest is treated as an expense, so it can be charged against income and amount of tax payable thereby reduced.**
3. **The amount of borrowing and its timing can be adjusted according to convenience and needs, and**
4. **It involves a fixed rate of interest to be paid even when profits are very high, thus owners may enjoy a much higher rate of return on investment then the lenders.**

Limitations:

There are certain limitations, too in case of borrowed capacity. Payment of interest and repayment of loans cannot be avoided even if there is a loss. Default in meeting these obligations may create problems for the business and result in decline of its credit worthiness. Continuing default may even lead to insolvency of firm.

Secondly, it requires adequate security to be offered against loans. Moreover, high rates of interest may be charged if the firm's ability to repay the loan in uncertain.

Source of Company Finance

Based upon the time, the financial resources may be classified into (1) sources of long term (2) sources of short – term finance. Some of these sources also serve the purpose of medium – term finance.

I. The source of long – term finance are:

1. **Issue of shares**
2. **Issue debentures**
3. **Loan from financial institutions**
4. **Retained profits and**
5. **Public deposits**

II. Sources of Short-term Finance are:

1. **Trade credit**
2. **Bank loans and advances and**
3. **Short-term loans from finance companies.**

Sources of Long Term Finance

1. **Issue of Shares: The amount of capital decided to be raised from members of the public is divided into units of equal value. These units are known as share and the aggregate values of shares are known as share capital of the company. Those who subscribe to the share capital become members of the company and are called shareholders. They are the owners of the company. Hence shares are also described as ownership securities.**
2. **Issue of Preference Shares: Preference share have three distinct characteristics. Preference shareholders have the right to claim dividend at a fixed rate, which is decided according to the terms of issue of shares. Moreover, the preference dividend is to be paid first out of the net profit. The balance, it any, can be distributed among other shareholders that is, equity shareholders. However, payment of dividend is not legally compulsory. Only when dividend is declared, preference shareholders have a prior claim over equity shareholders.**

   Preference shareholders also have the preferential right of claiming repayment of capital in the event of winding up of the company. Preference capital has to be repaid out of assets after meeting the loan obligations and claims of creditors but before any amount is repaid to equity shareholders.

   Holders of preference shares enjoy certain privileges, which cannot be claimed by the equity shareholders. That is why; they cannot directly take part in matters, which may be discussed at the general meeting of shareholders, or in the election of directors.

   Depending upon the terms of conditions of issue, different types of preference shares may be issued by a company to raises funds. Preference shares may be issued as:

1. **Cumulative or Non-cumulative**
2. **Participating or Non-participating**
3. **Redeemable or Non-redeemable, or as**
4. **Convertible or non-convertible preference shares.**

   In the case of cumulative preference shares, the dividend unpaid if any in previous years gets accumulated until that is paid. No cumulative preference shares have any such provision.

   Participatory shareholders are entitled to a further share in the surplus profits after a reasonable divided has been paid to equity shareholders. Non-participating preference shares do not enjoy such right. Redeemable preference shares are those, which are repaid after a specified period, where as the irredeemable preference shares are not repaid. However, the company can also redeem these shares after a specified period by giving notice as per the terms of issue. Convertible preference shows are those, which are entitled to be converted into equity shares after a specified period.

Merits:

Many companies due to the following reasons prefer issue of preference shares as a source of finance.

1. **It helps to enlarge the sources of funds.**
2. **Some financial institutions and individuals prefer to invest in preference shares due to the assurance of a fixed return.**
3. **Dividend is payable only when there are profits.**
4. **If does not affect the equity shareholders' control over management**

Limitations:

The limitations of preference shares relates to some of its main features:

1. **Dividend paid cannot be charged to the company's income as an expense; hence there is no tax saving as in the case of interest on loans.**
2. **Even through payment of dividend is not legally compulsory, if it is not paid or arrears accumulate there is an adverse effect on the company's credit.**
3. **Issue of preference share does not attract many investors, as the return is generally limited and not exceed the rates of interest on loan. On the other than, there is a risk of no dividend being paid in the event of falling income.**

1. Issue of Equity Shares: The most important source of raising long-term capital for a company is the issue of equity shares. In the case of equity shares there is no promise to shareholders a fixed dividend. But if the company is successful and the level profits are high, equity shareholders enjoy very high returns on their investment. This feature is very attractive to many investors even through they run the risk of having no return if the profits are inadequate or there is loss. They have the right of control over the management of the company and their liability is limited to the value of shares held by them.

From the above it can be said that equity shares have three distinct characteristics:

1. **The holders of equity shares are the primary risk bearers. It is the issue of equity shares that mainly provides 'risk capital', unlike borrowed capital. Even compared with preference capital, equity shareholders are to bear ultimate risk.**
2. **Equity shares enable much higher return sot be earned by shareholders during prosperity because after meeting the preference dividend and interest on borrowed capital at a fixed rate, the entire surplus of profit goes to equity shareholders only.**
3. **Holders of equity shares have the right of control over the company. Directors are elected on the vote of equity shareholders.**

Merits:

From the company' point of view; there are several merits of issuing equity shares to raise long-term finance.

1. **It is a source of permanent capital without any commitment of a fixed return to the shareholders. The return on capital depends ultimately on the profitability of business.**
2. **It facilities a higher rate of return to be earned with the help borrowed funds. This is possible due to two reasons. Loans carry a relatively lower rate of interest than the average rate of return on total capital. Secondly, there is tax saving as interest paid can be charged to income as a expense before tax calculation.**
3. **Assets are not required to give as security for raising equity capital. Thus additional funds can be raised as loan against the security of assets.**

Limitations:

Although there are several advantages of issuing equity shares to raise long-term capital.

1. **The risks of fluctuating returns due to changes in the level of earnings of the company do not attract many people to subscribe to equity capital.**
2. **The value of shares in the market also fluctuate with changes in business conditions, this is another risk, which many investors want to avoid.**

2. Issue of Debentures:

When a company decides to raise loans from the public, the amount of loan is dividend into units of equal. These units are known as debentures. A debenture is the instrument or certificate issued by a company to acknowledge its debt. Those who invest money in debentures are known as 'debenture holders'. They are creditors of the company. Debentures are therefore called 'creditor ship' securities. The value of each debentures is generally fixed in multiplies of 10 like Rs. 100 or Rs. 500, or Rs. 1000.

Debentures carry a fixed rate of interest, and generally are repayable after a certain period, which is specified at the time of issue. Depending upon the terms and conditions of issue there are different types of debentures. There are:

a. **Secured or unsecured Debentures and**
b. **Convertible of Non convertible Debentures.**

It debentures are issued on the security of all or some specific assets of the company, they are known as secured debentures. The assets are mortgaged in favor of the debenture holders. Debentures, which are not secured by a charge or mortgage of any assets, are called unsecured debentures. The holders of these debentures are treated as ordinary creditors.

Sometimes under the terms of issue debenture holders are given an option to covert their debentures into equity shares after a specified period. Or the terms of issue may lay down that the whole or part of the debentures will be automatically converted into equity shares of a specified price after a certain period. Such debentures are known as convertible debentures. If there is no mention of conversion at the time of issue, the debentures are regarded as non-convertible debentures.

Merits:

Debentures issue is a widely used method of raising long-term finance by companies, due to the following reasons.

1. **Interest payable on Debentures can be fixed at low rates than rate of return on equity shares. Thus Debentures issue is a cheaper source of finance.**
2. **Interest paid can be deducted from income tax purpose; there by the amount of tax payable is reduced.**
3. **Funds raised for the issue of debentures may be used in business to earn a much higher rate of return then the rate of interest. As a result the equity shareholders earn more.**
4. **Another advantage of debenture issue is that funds are available from investors who are not entitled to have any control over the management of the company.**
5. **Companies often find it convenient to raise debenture capital from financial institutions, which prefer to invest in debentures rather than in shares. This is due to the assurance of a fixed return and repayment after a specified period.**

Limitations:

Debenture issue as a source of finance has certain limitations too.

1. **It involves a fixed commitment to pay interest regularly even when the company has low earnings or incurring losses.**
2. **Debentures issue may not be possible beyond a certain limit due to the inadequacy of assets to be offered as security.**

Methods of Issuing Securities: The firm after deciding the amount to be raised and the type of securities to be issued, must adopt suitable methods to offer the securities to potential investors. There are for common methods followed by companies for the purpose.

When securities are offered to the general public a document known as Prospectus, or a notice, circular or advertisement is issued inviting the public to subscribe to the securities offered thereby all particulars about the company and the securities offered are made to the public. Brokers are appointed and one or more banks are authorized to collect subscription.

Some times the entire issue is subscribed by an organization known as Issue House, which in turn sells the securities to the public at a suitable time.

The company may negotiate with large investors of financial institutions who agree to take over the securities. This is known as 'Private Placement' of securities.

When an exiting company decides to raise funds by issue of equity shares, it is required under law to offer the new shares to the existing shareholders. This is described as right issue of equity shares. But if the existing shareholders decline, the new shares can be offered to the public.

<u>3. Loans from financial Institutions:</u>

Government with the main object of promoting industrial development has set up a number of financial institutions. These institutions play an important role as sources of company finance. Besides they also assist companies to raise funds from other sources.

These institutions provide medium and long-term finance to industrial enterprises at a reason able rate of interest. Thus companies may obtain direct loan from the financial institutions for expansion or modernization of existing manufacturing units or for starting a new unit.

Often, the financial institutions subscribe to the industrial debenture issue of companies some of the institutions (ICICI) and (IDBI) also subscribe to the share issued by companies.

All such institutions also underwrite the public issue of shares and debentures by companies. Underwriting is an agreement to take over the securities to the extent there is no public response to the issue. They may guarantee loans, which may be raised by companies from other sources.

Loans in foreign currency may also be granted for the import of machinery and equipment wherever necessary from these institutions, which stand guarantee for re-payments. Apart from the national level institutions mentioned above, there are a number of similar institutions set up in different states of India. The state-level financial

institutions are known as State Financial Corporation, State Industrial Development Corporations, State Industrial Investment Corporation and the like. The objectives of these institutions are similar to those of the national-level institutions. But they are mainly concerned with the development of medium and small-scale industrial units. Thus, smaller companies depend on state level institutions as a source of medium and long-term finance for the expansion and modernization of their enterprise.

4. Retained Profits:

Successful companies do not distribute the whole of their profits as dividend to shareholders but reinvest a part of the profits. The amount of profit reinvested in the business of a company is known as retained profit. It is shown as reserve in the accounts. The surplus profits retained and reinvested may be regarded as an internal source of finance. Hence, this method of financing is known as self-financing. It is also called sloughing back of profits.

Since profits belong to the shareholders, the amount of retained profit is treated as ownership fund. It serves the purpose of medium and long-term finance. The total amount of ownership capital of a company can be determined by adding the share capital and accumulated reserves.

Merits:

This source of finance is considered to be better than other sources for the following reasons.

1. **As an internal source, it is more dependable than external sources. It is not necessary to consider investor's preference.**
2. **Use of retained profit does not involve any cost to be incurred for raising the funds. Expenses on prospectus, advertising, etc, can be avoided.**
3. **There is no fixed commitment to pay dividend on the profits reinvested. It is a part of risk capital like equity share capital.**
4. **Control over the management of the company remains unaffected, as there is no addition to the number of shareholder.**
5. **It does not require the security of assets, which can be used for raising additional funds in the form of loan.**

Limitations:

However, there are certain limitations on the part of retained profit.

1. **Only well established companies can be avail of this sources of finance. Even for such companies retained profits cannot be used to an unlimited extent.**
2. **Accumulation of reserves often attract competition in the market,**
3. **With the increased earnings, shareholders expect a high rate of dividend to be paid.**
4. **Growth of companies through internal financing may attract government restrictions as it leads to concentration of economic power.**

5. Public Deposits:

An important source of medium – term finance which companies make use of is public deposits. This requires advertisement to be issued inviting the general public of deposits. This requires advertisement to be issued inviting the general public to deposit their savings with the company. The period of deposit may extend up to three yeas. The rate of interest offered is generally higher than the interest on bank deposits. Against the deposit, the company mentioning the amount, rate of interest, time of repayment and such other information issues a receipt.

Since the public deposits are unsecured loans, profitable companies enjoying public confidence only can be able to attract public deposits. Even for such companies there are rules prescribed by government limited its use.

Sources of Short Term Finance

The major sources of short-term finance are discussed below:

1. **Trade credit: Trade credit is a common source of short-term finance available to all companies. It refers to the amount payable to the suppliers of raw materials, goods etc. after an agreed period, which is generally less than a year. It is customary for all business firms to allow credit facility to their customers in trade business. Thus, it is an automatic source of finance. With the increase in production and corresponding purchases, the amount due to the creditors also increases. Thereby part of the funds required for increased production is financed by the creditors. The more important advantages of trade credit as a source of short-term finance are the following: It is readily available according to the prevailing customs. There are no special efforts to be made to avail of it. Trade credit is a flexible source of finance. It can be easily adjusted to the changing needs for purchases.**

   Where there is an open account for any creditor failure to pay the amounts on time due to temporary difficulties does not involve any serious consequence Creditors often adjust the time of payment in view of continued dealings. It is an economical source of finance.

   However, the liability on account of trade credit cannot be neglected. Payment has to be made regularly. If the company is required to accept a bill of exchange or to issue a promissory note against the credit, payment must be made on the maturity of the bill or note. It is a legal commitment and must be honored; otherwise legal action will follow to recover the dues.

2. **Bank loans and advances: Money advanced or granted as loan by commercial banks is known as bank credit. Companies generally secure bank credit to meet their current operating expenses. The most common forms are cash credit and overdraft facilities. Under the cash credit arrangement the maximum limit of credit is fixed in advance on the security of goods and materials in stock or against the personal security of directors. The total amount drawn is not to exceed the limit fixed. Interest is charged on the amount actually drawn and outstanding. During the period of credit, the company can draw, repay and again draw amounts with in the maximum limit. In the case of overdraft, the company is allowed to overdraw its current account up to the sanctioned limit. This facility is also allowed either against personal security or the security of assets. Interest is charged on the amount actually overdrawn, not on the sanctioned limit.**

   The advantage of bank credit as a source of short-term finance is that the amount can be adjusted according to the changing needs of finance. The rate of interest on bank credit is fairly high. But the burden is no excessive because it is used for short periods and is compensated by profitable use of the funds.

   Commercial banks also advance money by discounting bills of exchange. A company having sold goods on credit may draw bills of exchange on the customers for their acceptance. A bill is an order in writing requiring the customer to pay the specified amount after a certain period (say 60 days or 90 days). After acceptance of the bill, the company can drawn the amount as an advance from many commercial banks on payment of a discount. The amount of discount, which is equal to the interest for the period of the bill, and the balance, is available to the company. Bill discounting is thus another source of short-term finance available from the commercial banks.

3. **Short term loans from finance companies: Short-term funds may be available from finance companies on the security of assets. Some finance companies also provide funds according to the value of bills receivable or amount due from the customers of the borrowing company, which they take over.**

CAPITAL BUDGETING

Capital Budgeting: Capital budgeting is the process of making investment decision in long-term assets or courses of action. Capital expenditure incurred today is expected to bring its benefits over a period of time. These expenditures are related to the acquisition & improvement of fixes assets.

Capital budgeting is the planning of expenditure and the benefit, which spread over a number of years. It is the process of deciding whether or not to invest in a particular project, as the investment possibilities may not be rewarding. The manager has to choose a project, which gives a rate of return, which is more than the cost of financing the project. For this the manager has to evaluate the worth of the projects in-terms of cost and benefits. The benefits are the expected cash inflows from the project, which are discounted against a standard, generally the cost of capital.

Capital Budgeting Process:

The capital budgeting process involves generation of investment, proposal estimation of cash-flows for the proposals, evaluation of cash-flows, selection of projects based on acceptance criterion and finally the continues revaluation of investment after their acceptance the steps involved in capital budgeting process are as follows.

1. **Project generation**
2. **Project evaluation**
3. **Project selection**
4. **Project execution**

1. Project generation: In the project generation, the company has to identify the proposal to be undertaken depending upon its future plans of activity. After identification of the proposals they can be grouped according to the following categories:

a. **Replacement of equipment: In this case the existing outdated equipment and machinery may be replaced by purchasing new and modern equipment.**
b. **Expansion: The Company can go for increasing additional capacity in the existing product line by purchasing additional equipment.**
c. **Diversification: The Company can diversify its product line by way of producing various products and entering into different markets. For this purpose, It has to acquire the fixed assets to enable producing new products.**
d. **Research and Development: Where the company can go for installation of research and development suing by incurring heavy expenditure with a view to innovate new methods of production new products etc.,**

2. Project evaluation: In involves two steps.

a. **Estimation of benefits and costs: These must be measured in terms of cash flows. Benefits to be received are measured in terms of cash flows. Benefits to be received are measured in terms of cash in flows, and costs to be incurred are measured in terms of cash flows.**
b. **Selection of an appropriate criterion to judge the desirability of the project.**

3. Project selection: There is no standard administrative procedure for approving the investment decisions. The screening and selection procedure would differ from firm to firm. Due to lot of importance of capital budgeting decision, the final approval of the project may generally rest on the top management of the company. However the proposals are scrutinized at multiple levels. Some times top management may delegate authority to approve certain types of investment proposals. The top management may do so by limiting the amount of cash out lay. Prescribing the selection criteria and holding the lower management levels accountable for the results.

4. Project Execution: In the project execution the top management or the project execution committee is responsible for effective utilization of funds allocated for the projects. It must see that the funds are spent in accordance with the appropriation made in the capital budgeting plan. The funds for the purpose of the project execution must be spent only after obtaining the approval of the finance controller. Further to have an effective cont. It is necessary to prepare monthly budget reports to show clearly the total amount appropriated, amount spent and to amount unspent.

Capital budgeting Techniques:

The capital budgeting appraisal methods are techniques of evaluation of investment proposal will help the company to decide upon the desirability of an investment proposal depending upon their; relative income generating capacity and rank them in order of their desirability. These methods provide the company a set of norms on the basis of which either it has to accept or reject the investment proposal. The most widely accepted techniques used in estimating the cost-returns of investment projects can be grouped under two categories.

1. Traditional methods
2. Discounted Cash flow methods

1. Traditional methods

These methods are based on the principles to determine the desirability of an investment project on the basis of its useful life and expected returns. These methods depend upon the accounting information available from the books of accounts of the company. These will not take into account the concept of 'time value of money', which is a significant factor to determine the desirability of a project in terms of present value.

A. Pay-back period method: It is the most popular and widely recognized traditional method of evaluating the investment proposals. It can be defined, as 'the number of years required to recover the original cash out lay invested in a project'.

According to Weston & Brigham, "The pay back period is the number of years it takes the firm to recover its original investment by net returns before depreciation, but after taxes".

According to James. C. Vanhorne, "The payback period is the number of years required to recover initial cash investment.

The pay back period is also called payout or payoff period. This period is calculated by dividing the cost of the project by the annual earnings after tax but before depreciation under this method the projects are ranked on the basis of the length of the payback period. A project with the shortest payback period will be given the highest rank and taken as the best investment. The shorter the payback period, the less risky the investment is the formula for payback period is

$$\text{Pay-back period} = \frac{\text{Cash outlay (or) original cost of project}}{\text{Annual cash inflow}}$$

Merits:

1. It is one of the earliest methods of evaluating the investment projects.
2. It is simple to understand and to compute.
3. It dose not involve any cost for computation of the payback period
4. It is one of the widely used methods in small scale industry sector
5. It can be computed on the basis of accounting information available from the books.

Demerits:

1. This method fails to take into account the cash flows received by the company after the pay back period.
2. It doesn't take into account the interest factor involved in an investment outlay.
3. It doesn't take into account the interest factor involved in an investment outlay.
4. It is not consistent with the objective of maximizing the market value of the company's share.
5. It fails to consider the pattern of cash inflows i. e., the magnitude and timing of cash in flows.

B. Accounting (or) Average rate of return method (ARR):

It is an accounting method, which uses the accounting information repeated by the financial statements to measure the probability of an investment proposal. It can be determine by dividing the average income after taxes by the average investment i.e., the average book value after depreciation.

According to 'Soloman', accounting rate of return on an investment can be calculated as the ratio of accounting net income to the initial investment, i.e.,

$$ARR = \frac{\text{Average net income after taxes}}{\text{Average Investment}} \times 100$$

$$\text{Average net income after taxes} = \frac{\text{Total Income after Taxes}}{\text{No. Of Years}}$$

$$\text{Average investment} = \frac{\text{Total Investment}}{2}$$

On the basis of this method, the company can select all those projects who's ARR is higher than the minimum rate established by the company. It can reject the projects with an ARR lower than the expected rate of return. This method can also help the management to rank the proposal on the basis of ARR. A highest rank will be given to a project with highest ARR, where as a lowest rank to a project with lowest ARR.

Merits:

1. **It is very simple to understand and calculate.**
2. **It can be readily computed with the help of the available accounting data.**
3. **It uses the entire stream of earning to calculate the ARR.**

Demerits:

1. **It is not based on cash flows generated by a project.**
2. **This method does not consider the objective of wealth maximization**
3. **IT ignores the length of the projects useful life.**
4. **It does not take into account the fact that the profits can be re-invested.**

II: Discounted cash flow methods:

The traditional method does not take into consideration the time value of money. They give equal weight age to the present and future flow of incomes. The DCF methods are based on the concept that a rupee earned today is more worth than a rupee earned tomorrow. These methods take into consideration the profitability and also time value of money.

A. Net present value method (NPV)

The NPV takes into consideration the time value of money. The cash flows of different years and valued differently and made comparable in terms of present values for this the net cash inflows of various period are discounted using required rate of return which is predetermined.

According to Ezra Solomon, "It is a present value of future returns, discounted at the required rate of return minus the present value of the cost of the investment."

NPV is the difference between the present value of cash inflows of a project and the initial cost of the project.

According the NPV technique, only one project will be selected whose NPV is positive or above zero. If a project(s) NPV is less than 'Zero'. It gives negative NPV hence. It must be rejected. If there are more than one project with positive NPV's the project is selected whose NPV is the highest.

The formula for NPV is

NPV= Present value of cash inflows – investment.

$$NPV = \frac{C1}{(1+K)} + \frac{C2}{} + \frac{C3}{} + \frac{Cn}{}$$

Co- investment

C1, C2, C3… Cn= cash inflows in different years.

K= Cost of the Capital (or) Discounting rate

D= Years.

Merits:

1. **It recognizes the time value of money.**
2. **It is based on the entire cash flows generated during the useful life of the asset.**

3. It is consistent with the objective of maximization of wealth of the owners.
4. The ranking of projects is independent of the discount rate used for determining the present value.

Demerits:

1. It is different to understand and use.
2. The NPV is calculated by using the cost of capital as a discount rate. But the concept of cost of capital. If self is difficult to understood and determine.
3. It does not give solutions when the comparable projects are involved in different amounts of investment.
4. It does not give correct answer to a question whether alternative projects or limited funds are available with unequal lines.

B. Internal Rate of Return Method (IRR)

The IRR for an investment proposal is that discount rate which equates the present value of cash inflows with the present value of cash out flows of an investment. The IRR is also known as cutoff or handle rate. It is usually the concern's cost of capital.

According to Weston and Brigham "The internal rate is the interest rate that equates the present value of the expected future receipts to the cost of the investment outlay.

When compared the IRR with the required rate of return (RRR), if the IRR is more than RRR then the project is accepted else rejected. In case of more than one project with IRR more than RRR, the one, which gives the highest IRR, is selected.

The IRR is not a predetermine rate, rather it is to be trial and error method. It implies that one has to start with a discounting rate to calculate the present value of cash inflows. If the obtained present value is higher than the initial cost of the project one has to try with a higher rate. Like wise if the present value of expected cash inflows obtained is lower than the present value of cash flow. Lower rate is to be taken up. The process is continued till the net present value becomes Zero. As this discount rate is determined internally, this method is called internal rate of return method.

$$IRR = L + \frac{P1 - Q}{P1 - P2} \times D$$

L- Lower discount rate

P1 - Present value of cash inflows at lower rate.

P2 - Present value of cash inflows at higher rate.

Q- Actual investment

D- Difference in Discount rates.

Merits:

1. It consider the time value of money
2. It takes into account the cash flows over the entire useful life of the asset.
3. It has a psychological appear to the user because when the highest rate of return projects are selected, it satisfies the investors in terms of the rate of return an capital
4. It always suggests accepting to projects with maximum rate of return.
5. It is inconformity with the firm's objective of maximum owner's welfare.

Demerits:

1. It is very difficult to understand and use.
2. It involves a very complicated computational work.
3. It may not give unique answer in all situations.

C. Probability Index Method (PI)

The method is also called benefit cost ration. This method is obtained cloth a slight modification of the NPV method. In case of NPV the present value of cash out flows are profitability index (PI), the present value of cash inflows are divide by the present value of cash out flows, while NPV is a absolute measure, the PI is a relative measure.

If the PI is more than one (>1), the proposal is accepted else rejected. If there are more than one investment proposal with the more than one PI the one with the highest PI will be selected. This method is more useful incase of projects with different cash outlays cash outlays and hence is superior to the NPV method.

The formula for PI is

$$\text{Probability index} = \frac{\text{Present Value of Future Cash Inflow}}{\text{Investment}}$$

Merits:

1. It requires less computational work then IRR method

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2. It helps to accept / reject investment proposal on the basis of value of the index.
3. It is useful to rank the proposals on the basis of the highest/lowest value of the index.
4. It is useful to tank the proposals on the basis of the highest/lowest value of the index.
5. It takes into consideration the entire stream of cash flows generated during the useful life of the asset.

Demerits:

1. It is some what difficult to understand
2. Some people may feel no limitation for index number due to several limitation involved in their competitions
3. It is very difficult to understand the analytical part of the decision on the basis of probability index

QUESTIONS

1. What do you understand by working capital cycle and what is its importance.
2. Describe the institutions providing long-term finance.
3. What do you understand by NPV method of appeasing long-term investment proposal? Explain with the help of a proposal of your choice.
4. What is ARR and Payback period? Compare and count ran-the two methods.
5. What are the components of working capital? Explain each of them/ explain the factors affecting the requirements of working capital.
6. What are the merits & limitations of Pay back period? How does discounting approach overcome the limitation of payback period?
7. Give various examples of capital budgeting decisions classify them into specific kinds.
8. What is the importance of capital budgeting? Explain the basic steps involved in evaluating capital budgeting proposals.
9. What is NPV & IRR Compare and contrast the two methods of evaluating capital budgeting proposals.
10. What are major sources of short-term finance?
11. What is meant by discounting and time value of money? How is it useful in capital budgeting?

QUIZ

1. Financing decision refers as _______________ (   )
   (a) Investment decision (b) Utilization of funds
   (c) Acquisition of funds (d) Dividend policy decision
2. Excess of current assets over current liabilities is known as_____ (   )
   (a) Long run capital (b) Fixed capital
   (c) Net working capital (d) Net worth
3. Long term investment of funds is called __________ (   )
   (a) Working capital (b) Revolving capital
   (c) Capital budgeting (d) Operational capital
4. A rate at which N.P.V = 0, then the rate is called__________ (   )
   (a) Minimum Rate of Return (b) Required Rate of Return
   (c) Internal Rate of Return (d) Average Rate of Return
5. _______ is the life blood of the business. (   )
   (a) Price (b) Cost
   (c) Finance (d) Production
6. Which method takes into consideration "The Time Value of Money"? (   )
   (a) Traditional Method (b) Pay Back Period Method
   (c) Discounted Cash Flow Method (d) Average Rate of Return Method
7. Under Capital budgeting, only _____ Proposals are considered (   )
   (a) Very short-term (b) Short-term
   (c) Long-term (d) Mid-term
8. The investment in short-term assets is known as____ (   )
   (a) Capital Budgeting (b) Fixed Investment

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(c) Working capital management (d) Fixed capital management

9. Which assets yield a return over a period of time in future? ( )
   (a) Short-term assets (b) Current assets
   (c) Long-term assets (d) Fictious assets

10. The process of evaluating the relative worth of long-term investment Proposals are called___________. ( )
   (a) Working capital management (b) Current liabilities management
   (c) Capital Budgeting (d) Current assets management

11. What is the formula of Net Present Value (NPV)? ( )
   (a) $\frac{\text{Present value of cash inflow}}{\text{Present value of cash outflow}}$ (b) $\frac{\text{Original cost of the project}}{\text{Avg. annual earnings}}$
   (c) Present value of cash inflow – Present value of cash outflow
   (d) $\frac{\text{Avg. Investment}}{\text{Avg. earnings}}$

12. What is the formula for profitability index? ( )
   (a) Present value of cash inflow – Present value of cash outflow
   (b) $\frac{\text{Original cost of the project}}{\text{Avg. annual earnings}}$ (c) $\frac{\text{Present value of cash inflow}}{\text{Present value of cash outflow}}$
   (d) $\frac{\text{Avg. Investment}}{\text{Avg. earnings}}$

13. What is the current asset from the following? ( )
   (a) Creditors (b) Bills payable
   (c) Debtors (d) Bank over draft

14. What is the formula for Pay Back period? ( )
   (a) $\frac{\text{Avg. Investment}}{\text{Avg. earnings}}$ (b) $\frac{\text{Annual earnings}}{\text{Cost of the product}}$
   (c) $\frac{\text{Cost of the project}}{\text{Annual earnings}}$ (d) $\frac{\text{Cash inflow}}{\text{Cash outflow}}$

15. __________ decision relates to the selection of assets in which funds will be invested by a firm. ( )
   (a) Finance (b) Dividend
   (c) Investment (d) None

16. ______ method is one of the traditional methods. ( )
   (a) Net present value (b) Profitability index
   (c) Pay back period (d) internal rate of return

17. Funds needed for short-term purpose is known as ______. ( )
   (a) Fixed capital management (b) Capital Budgeting
   (c) Working capital management (d) Long-term capital management

18. What is the formula for Average Rate of Return (ARR)? ( )
   (a) $\frac{\text{Cost of the project}}{\text{Avg. earnings}}$ (b) $\frac{\text{Present value of cash inflow}}{\text{Present value of cash outflow}}$
   (c) $\frac{\text{Avg. earnings}}{\text{Avg. investment}}$ (d) $\frac{\text{Avg. investment}}{\text{Avg. earnings}}$

19. What is the current Liability from the following? ( )
   (a) Bills Receivable (b) Closing stock
   (c) Bills payable (d) Cash in hand

20. The Pay Back Period also called as ________. ( )
   (a) Current Period (b) Pay reserve method
   (c) Pay off Period (d) None

21. ______ holders have preference over dividends. ( )
   (a) Equity share (b) Debenture
   (c) Preference share (d) Ordinary share

22. ______ holders are the real owners of the company. ( )
   (a) Debenture (b) Preference share
   (c) Equity share (d) Liability

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23. Interest is paid on loan and dividend is paid for _____. ( )

(a) Debenture (b) Public deposits

(c) Shares (d) Securities

24. ______ are deducted from Current Assets, while calculating Working Capital. ( )

(a) Fixed Assets (b) Fixed Liabilities

(c) Current Liabilities (d) Fictious Assets

Note: Answer is "C" for all the above questions.

UNIT - VII

INTRODUCTION TO FINANCIAL ACCOUNTING

CONCEPTS

Synopsis:

1. Introduction
2. Book-keeping and Accounting
3. Function of an Accountant
4. Users of Accounting
5. Advantages of Accounting
6. Limitations of Accounting
7. Basic Accounting concepts

1. INTRODUCITON

As you are aware, every trader generally starts business for purpose of earning profit. While establishing business, he brings own capital, borrows money from relatives, friends, outsiders or financial institutions. Then he purchases machinery, plant , furniture, raw materials and other assets. He starts buying and selling of goods, paying for salaries, rent and other expenses, depositing and withdrawing cash from bank. Like this he undertakes innumerable transactions in business. Observe the following transactions of small trader for one week during the month of July, 1998.

1998		Rs.
July 24	Purchase of goods from Sree Ram	12,000
July 25	Goods sold for cash	5,000
July 25	Sold gods to Syam on credit	8,000
July 26	Advertising expenses	5,200
July 27	Stationary expenses	600
July 27	Withdrawal for personal use	2,500
July 28	Rent paid through cheque	1,000
July 31	Salaries paid	9,000
July 31	Received cash from Syam	5,000

The number of transactions in an organization depends upon the size of the organization. In small organizations, the transactions generally will be in thousand and in big organizations they may be in lakhs. As

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such it is humanly impossible to remember all these transactions. Further, it may not by possible to find out the final result of the business without recording and analyzing these transactions.

Accounting came into practice as an aid to human memory by maintaining a systematic record of business transactions.

1.1 History of Accounting:

Accounting is as old as civilization itself. From the ancient relics of Babylon, it can be will proved that accounting did exist as long as 2600 B.C. However, in modern form accounting based on the principles of Double Entry System came into existence in 17th Century. Fra Luka Paciolo, a Fransiscan monk and mathematician published a book *De computic et scripturies* in 1494 at Venice in Italyl. This book was translated into English in 1543. In this book he covered a brief section on 'book-keeping'.

1.2 Origin of Accounting in India:

Accounting was practiced in India thousand years ago and there is a clear evidence for this. In his famous book *Arthashastra* Kautilya dealt with not only politics and economics but also the art of proper keeping of accounts. However, the accounting on modern lines was introduced in India after 1850 with the formation joint stock companies in India.

Accounting in India is now a fast developing discipline. The two premier Accounting Institutes in India viz., chartered Accountants of India and the Institute of Cost and Works Accountants of India are making continuous and substantial contributions. The international Accounts Standards Committee (IASC) was established as on 29th June. In India the 'Accounting Standards Board (ASB) is formulating 'Accounting Standards' on the lines of standards framed by International Accounting Standards Committee.

2. BOOK-KEEPING AND ACCOUNTING

According to G.A. Lee the accounting system has two stages.

1. **The making of routine records in the prescribed from and according to set rules of all events with affect the financial state of the organization; and**
2. **The summarization from time to time of the information contained in the records, its presentation in a significant form to interested parties and its interpretation as an aid to decision making by these parties.**

First stage is called Book-Keeping and the second one is Accounting.

Book – Keeping: Book – Keeping involves the chronological recording of financial transactions in a set of books in a systematic manner.

Accounting: Accounting is concerned with the maintenance of accounts giving stress to the design of the system of records, the preparation of reports based on the recorded date and the interpretation of the reports.

Distinction between Book – Keeping and Accountancy

Thus, the terms, book-keeping and accounting are very closely related, through there is a subtle difference as mentioned below.

1. Object : The object of book-keeping is to prepare original books of Accounts. It is restricted to journal, subsidiary book and ledge accounts only. On the other hand, the main object of accounting is to record analyse and interpret the business transactions.

2. Level of Work: Book-keeping is restricted to level of work. Clerical work is mainly involved in it. Accountancy on the other hand, is concerned with all level of management.

3. Principles of Accountancy: In Book-keeping Accounting concepts and conventions will be followed by all without any difference. On the other hand, various firms follow various methods of reporting and interpretation in accounting.

3. Final Result: In Book-Keeping it is not possible to know the final result of business every year,

2.1 Meaning of Accounting

Thus, book-keeping is an art of recording the business transactions in the books of original entry and the ledges. Accountancy begins where Book-keeping ends. Accountancy means the compiliation of accounts in such a way that one is in a position to know the state of affairs of the business. The work of an accountant is to analyse, interpret and review the accounts and draw conclusion with a view to guide the management in chalking out the future policy of the business.

2.2 Definition of Accounting:

Smith and Ashburne: "Accounting is a means of measuring and reporting the results of economic activities."

R.N. Anthony: "Accounting system is a means of collecting summarizing, analyzing and reporting in monetary terms, the information about the business.

American Institute of Certified Public Accountants (AICPA): "The art of recording, classifying and summarizing in a significant manner and in terms of money transactions and events, which are in part at least, of a financial character and interpreting the results thereof."

Thus, accounting is an art of identifying, recording, summarizing and interpreting business transactions of financial nature. Hence accounting is the Language of Business.

2.3 Branches of Accounting:

The important branches of accounting are:

1. **Financial Accounting: The purpose of Accounting is to ascertain the financial results i.e. profit or loass in the operations during a specific period. It is also aimed at knowing the financial position, i.e. assets, liabilities and equity position at the end of the period. It also provides other relevant information to the management as a basic for decision-making for planning and controlling the operations of the business.**
2. **Cost Accounting: The purpose of this branch of accounting is to ascertain the cost of a product / operation / project and the costs incurred for carrying out various activities. It also assist the management in controlling the costs. The necessary data and information are gatherr4ed form financial and other sources.**
3. **Management Accounting : Its aim to assist the management in taking correct policy decision and to evaluate the impact of its decisions and actions. The data required for this purpose are drawn accounting and cost-accounting.**
4. **Inflation Accounting : It is concerned with the adjustment in the values of assest and of profit in light of changes in the price level. In a way it is concerned with the overcoming of limitations that arise in financial statements on account of the cost assumption (i.e recording of the assets at their historical or original cost) and the assumption of stable monetary unit.**
5. **Human Resource Accounting : It is a branch of accounting which seeks to report and emphasize the importance of human resources in a company's earning process and total assets. It is concerned with the process of identifying and measuring data about human resources and communicating this information to interested parties. In simple words, it is accounting for people as organizational resources.**

3. FUNCTIONS OF AN ACCOUNTANT

The job of an accountant involves the following types of accounting works :

1. **Designing Work : It includes the designing of the accounting system, basis for identification and classification of financial transactions and events, forms, methods, procedures, etc.**
2. **Recording Work : The financial transactions are identified, classified and recorded in appropriate books of accounts according to principles. This is "Book Keeping". The recording of transactions tends to be mechanical and repetitive.**
3. **Summarizing Work : The recorded transactions are summarized into significant form according to generally accepted accounting principles. The work includes the preparation of profit and loss account, balance sheet. This phase is called 'preparation of final accounts'**
4. **Analysis and Interpretation Work: The financial statements are analysed by using ratio analysis, break-even analysis, funds flow and cash flow analysis.**
5. **Reporting Work: The summarized statements along with analysis and interpretation are communicated to the interested parties or whoever has the right to receive them. For Ex. Share holders. In addition, the accou8nting departments has to prepare and send regular reports so as to assist the management in decision making. This is 'Reporting'.**
6. **Preparation of Budget : The management must be able to reasonably estimate the future requirements and opportunities. As an aid to this process, the accountant has to prepare budgets, like cash budget, capital budget, purchase budget, sales budget etc. this is 'Budgeting'.**
7. **Taxation Work : The accountant has to prepare various statements and returns pertaining to income-tax, sales-tax, excise or customs duties etc., and file the returns with the authorities concerned.**
8. **Auditing : It involves a critical review and verification of the books of accounts statements and reports with a view to verifying their accuracy. This is 'Auditing'**

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This is what the accountant or the accounting department does. A person may be placed in any part of Accounting Department or MIS (Management Information System) Department or in small organization, the same person may have to attend to all this work.

4. USERS OF ACCOUNTING INFORMATION

Different categories of users need different kinds of information for making decisions. The users of accounting can be divided in two board groups (1). Internal users and (2). External users.

4.1 Internal Users:

Managers : These are the persons who manage the business, i.e. management at he top, middle and lower levels. Their requirements of information are different because they make different types of decisions.

Accounting reports are important to managers for evaluating the results of their decisions. In additions to external financial statements, managers need detailed internal reports either branch division or department or product-wise. Accounting reports for managers are prepared much more frequently than external reports.

Accounting information also helps the managers in appraising the performance of subordinates. As such Accounting is termed as " the eyes and ears of management."

4.2 External Users :

1. Investors : Those who are interested in buying the shares of company are naturally interested in the financial statements to know how safe the investment already made is and how safe the proposed investments will be.

2. Creditors : Lenders are interested to know whether their load, principal and interest, will be paid when due. Suppliers and other creditors are also interested to know the ability of the firm to pay their dues in time.

3. Workers : In our country, workers are entitled to payment of bonus which depends on the size of profit earned. Hence, they would like to be satisfied that he bonus being paid to them is correct. This knowledge also helps them in conducting negotiations for wages.

4. Customers : They are also concerned with the stability and profitability of the enterprise. They may be interested in knowing the financial strength of the company to rent it for further decisions relating to purchase of goods.

5. Government: Governments all over the world are using financial statements for compiling statistics concerning business which, in turn, helps in compiling national accounts. The financial statements are useful for tax authorities for calculating taxes.

6. Public : The public at large interested in the functioning of the enterprises because it may make a substantial contribution to the local economy in many ways including the number of people employed and their patronage to local suppliers.

7. Researchers: The financial statements, being a mirror of business conditions, is of great interest to scholars undertaking research in accounting theory as well as business affairs and practices.

5. ADVANTAGES FROM ACCOUNTING

The role of accounting has changed from that of a mere record keeping during the 1st decade of 20th century of the present stage, which it is accepted as information system and decision making activity. The following are the advantages of accounting.

1. Provides for systematic records: Since all the financial transactions are recorded in the books, one need not rely on memory. Any information required is readily available from these records.
2. Facilitates the preparation of financial statements: Profit and loss accountant and balance sheet can be easily prepared with the help of the information in the records. This enables the trader to know the net result of business operations (i.e. profit / loss) during the accounting period and the financial position of the business at the end of the accounting period.
3. Provides control over assets: Book-keeping provides information regarding cash in had, cash at bank, stock of goods, accounts receivables from various parties and the amounts invested in various other assets. As the trader knows the values of the assets he will have control over them.
4. Provides the required information: Interested parties such as owners, lenders, creditors etc., get necessary information at frequent intervals.

5. **Comparative study:** One can compare the present performance of the organization with that of its past. This enables the managers to draw useful conclusion and make proper decisions.
6. **Less Scope for fraud or theft:** It is difficult to conceal fraud or theft etc., because of the balancing of the books of accounts periodically. As the work is divided among many persons, there will be check and counter check.
7. **Tax matters:** Properly maintained book-keeping records will help in the settlement of all tax matters with the tax authorities.
8. **Ascertaining Value of Business:** The accounting records will help in ascertaining the correct value of the business. This helps in the event of sale or purchase of a business.
9. **Documentary evidence:** Accounting records can also be used as an evidence in the court to substantiate the claim of the business. These records are based on documentary proof. Every entry is supported by authentic vouchers. As such, Courts accept these records as evidence.
10. **Helpful to management:** Accounting is useful to the management in various ways. It enables the management to asses the achievement of its performance. The weakness of the business can be identified and corrective measures can be applied to remove them with the helps accounting.

6. LIMITATIONS OF ACCOUNTING

The following are the limitations of accounting.

1. **Does not record all events:** Only the transactions of a financial character will be recorded under book-keeping. So it does not reveal a complete picture about the quality of human resources, locational advantage, business contacts etc.
2. **Does not reflect current values:** The data available under book-keeping is historical in nature. So they do not reflect current values. For instance, we record the value of stock at cost price or market price, which ever is less. In case of, building, machinery etc., we adopt historical cost as the basis. Infact, the current values of buildings, plant and machinery may be much more than what is recorded in the balance sheet.
3. **Estimates based on Personal Judgment:** The estimate used for determining the values of various items may not be correct. For example, debtor are estimated in terms of collectibility, inventories are based on marketability, and fixed assets are based on useful working life. These estimates are based on personal judgment and hence sometimes may not be correct.
4. **Inadequate information on costs and Profits:** Book-keeping only provides information about the overall profitability of the business. No information is given about the cost and profitability of different activities of products or divisions.

7. BASIC ACCOUNTING CONCEPTS

Accounting has been evolved over a period of several centuries. During this period, certain rules and conventions have been adopted. They serve as guidelines in identifying the events and transactions to be accounted for measuring, recording, summarizing and reporting them to the interested parties. These rules and conventions are termed as Generally Accepted Accounting Principles. These principles are also referred as standards, assumptions, concepts, conventions doctrines, etc. Thus, the accounting concepts are the fundamental ideas or basic assumptions underlying the theory and practice of financial accounting. They are the broad working rules for all accounting activities developed and accepted by the accounting profession.

Basic accounting concepts may be classified into two broad categories.

1. Concept to be observed at the time of recording transactions.(Recording Stage).
2. Concept to be observed at the time of preparing the financial accounts (Reporting Stage)

FINAL ACCOUNTS

***INTRODUCTION*:** The main object of any Business is to make profit. Every trader generally starts business for the purpose of earning profit. While establishing Business, he brings his own capital, borrows money from relatives, friends, outsiders or financial institutions, then purchases machinery, plant, furniture, raw materials and other assets. He starts buying and selling of goods, paying for salaries, rent and other expenses, depositing and withdrawing cash from Bank. Like this he undertakes innumerable transactions in Business.

The number of Business transactions in an organization depends up on the size of the organization. In small organizations the transactions generally will be in thousands and in big organizations they may be in lacks. As such it is humanly impossible to remember all these transactions. Further it may not be possible to find out the final result of the Business with out recording and analyzing these transactions.

Accounting came in practice as an aid to human memory by maintaining a systematic record of Business transactions.

BOOK KEEPING AND ACCOUNTING:

According to G.A.Lee the Accounting system has two stages. First stage is Book keeping and the second stage is accounting.

[A]. *BOOK KEEPING*:

Book keeping involves the chronological recording of financial transactions in a set of books in a systematic manner

"Book keeping is the system of recording Business transactions for the purpose of providing reliable information to the owners and managers about the state and prospect of the Business concepts".

Thus Book keeping is an art of recording business transactions in the books of original entry and the ledges.

[B]. *ACCOUNTING*: Accounting begins where the Bookkeeping ends
***1. SMITH AND ASHBUNNE*: Accounting means "measuring and reporting the results of economic activities".**
2. *R.N ANTHONY*: Accounting is a system of "collecting, summarizing, Analyzing and reporting in monster terms, the information about the Business".
3. *ICPA:* Recording, classifying and summarizing is a significant manner and in terms of money transactions and events, which are in part at least, of a financial character and interpreting the results there.

Thus accounting is an art of recording, classifying, summarizing and interpreting business transactions of financial nature. Hence accounting is the "Language of Business".

ADVANTAGE OF ACCOUNTING

The following are the advantages of Accounting…………

1. ***PROVIDES FOR SYSTEMATIC RECORDS*: Since all the financial transactions are recorded in the books, one need not rely on memory. Any information required is readily available from these records.**

2. ***FACILITATES THE PRPARATION OF FINANCIAL STATEMENTS*: Profit and Loss account and balance sheet can be easily prepared with the help of the information in the records. This enables the trader to know the net result of Business operations (i.e. profit/loss) during the accounting period and the financial position of the business at the end of the accounting period.**

3. ***PROVIDES CONTROL OVER ASSETS*: Book keeping provides information regarding cash in hand, cash at hand, stack of goods, accounts receivable from various parties and the amounts invested in various other assets. As the trader knows the values of the assets he will have control over them.**

4. ***PROVIES THE REQUIRED INFORMATION*: Interested parties such as owners, lenders, creditors etc, get necessary information at frequent intervals.**

5. ***COMPARITIVE STUDY*: One can compare present performance of the organization with that of its past. This enables the managers to draw useful conclusions and make proper decisions.**

6. ***LESS SCOPE FOR FRAUD OR THEFT*: It is difficult to conceal fraud or theft etc. because of the balancing of the books of accounts periodically. As the work is divided among many persons, there will be check and counter check.**

7. **TAX MALTERS: Properly maintained Book keeping records will help in the settlement of all tax matters with the tax authorities.**

8. ***ASCERTAINING VALUE OF BUSINESS*: The accounting records will help in ascertaining the correct value of the Business. This helps in the event of sale or purchase of a business.**

9. ***DOCUMENTARY EVIDENCE*: Accounting records can also be used as evidence in the court of substantial the claim of the Business. Thus records are based on documentary proof. Authentic vouchers support every entry. As such, courts accept these records as evidence.**

10.*HELPFUL TO MANAGEMENT*: Accounting is useful to the management in various ways. It enables the management to assess the achievement of its performance. The weaknesses of the business can be identified and corrective measures can be applied to remove them with the help of accounting.

LIMITATIONS OF ACCOUNTING

The following are the limitations of accounting…………..

1.*DOES NOT RECORD ALL EVENTS*: Only the transactions of a financial character will be recorded under book keeping. So it does not reveal a complete picture about the quality of human resources, locational advantages, business contacts etc.

2.*DOES NOT REFLECT CURRENT VLAUES*: The data available under book keeping is historical in nature. So they do not reflect current values. For instance we record the values of stock at cost price or market price, which ever is less. In case of building, machinery etc., we adapt historical case as the basis. Infact, the current values of Buildings, plant and machinery may be much more than what is recorded in the balance sheet.

3. *ESTIMATES BASED ON PERSONAL JUDGEMENT*: The estimates used for determining the values of various items may not be correct. For example, debtors are estimated in terms of collectibles, inventories are based on marketability and fixed assets are based on useful working life. These estimates are based on personal judgment and hence sometimes may not be correct.

4. ***INADEQUATE INFORMATION ON COSTS AND PROFITS*: Book keeping only provides information about over all profitability of the business. No information is given about the cost and profitability of different activities of products or divisions.**

BASIC ACCOUNTING CONCEPTS

Accounting is a system evolved to achieve a set of objectives. In order to achieve the goals, we need a set of rules or guidelines. These guidelines are termed here as "BASIC ACCOUNTING ONCEPTS". The term concept means an idea or thought. Basic accounting concepts are the fundamental ideas or basic assumptions underlying the theory and profit of FINANCIAL ACCOUNTING. These concepts help in bringing about uniformity in the practice of accounting. In accountancy following concepts are quite popular.

1. *BUSINESS ENTITY CONEPT*: In this concept "Business is treated as separate from the proprietor". All the Transactions recorded in the book of Business and not in the books of proprietor. The proprietor is also treated as a creditor for the Business.

2. *GOING CONCERN CONCEPT*: This concept relates with the long life of Business. The assumption is that business will continue to exist for unlimited period unless it is dissolved due to some reasons or the other.

3. *MONEY MEASUREMENT CONCEPT*: In this concept "Only those transactions are recorded in accounting which can be expressed in terms of money, those transactions which can not be expressed in terms of money are not recorded in the books of accounting".

4. *COST CONCEPT*: Accounting to this concept, can asset is recorded at its cost in the books of account. i.e., the price, which is paid at the time of acquiring it. In balance sheet, these assets appear not at cost price every year, but depreciation is deducted and they appear at the amount, which is cost, less classification.

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5. *ACCOUNTING PERIOD CONCEPT*: every Businessman wants to know the result of his investment and efforts after a certain period. Usually one-year period is regarded as an ideal for this purpose. This period is called Accounting Period. It depends on the nature of the business and object of the proprietor of business.

6. *DUAL ASCEPT CONCEPT*: According to this concept "Every business transactions has two aspects", one is the receiving benefit aspect another one is giving benefit aspect. The receiving benefit aspect is termed as "DEBIT", where as the giving benefit aspect is termed as "CREDIT". Therefore, for every debit, there will be corresponding credit.

7. *MATCHING COST CONCEPT*: According to this concept "The expenses incurred during an accounting period, e.g., if revenue is recognized on all goods sold during a period, cost of those good sole should also Be charged to that period.

8. *REALISATION CONCEPT*: According to this concept revenue is recognized when a sale is made. Sale is Considered to be made at the point when the property in goods posses to the buyer and he becomes legally liable to pay.

ACCOUNTING CONVENTIONS

Accounting is based on some customs or usages. Naturally accountants here to adopt that usage or custom. They are termed as convert conventions in accounting. The following are some of the important accounting conventions.

1.*FULL DISCLOSURE*: According to this convention accounting reports should disclose fully and fairly the information. They purport to represent. They should be prepared honestly and sufficiently disclose information which is if material interest to proprietors, present and potential creditors and investors. The companies ACT, 1956 makes it compulsory to provide all the information in the prescribed form.

2.*MATERIALITY*: Under this convention the trader records important factor about the commercial activities. In the form of financial statements if any unimportant information is to be given for the sake of clarity it will be given as footnotes.

3.*CONSISTENCY*: It means that accounting method adopted should not be changed from year to year. It means that there should be consistent in the methods or principles followed. Or else the results of a year Cannot be conveniently compared with that of another.

4. *CONSERVATISM*: This convention warns the trader not to take unrealized income in to account. That is why the practice of valuing stock at cost or market price, which ever is lower is in vague. This is the policy of "playing safe"; it takes in to consideration all prospective losses but leaves all prospective profits.

KEY WORDS IN BOOK-KEEPING

1. ***TRANSACTIONS*: Any sale or purchase of goods of services is called the transaction.**
   Transactions are two types.
   [a]. cash transaction: cash transaction is one where cash receipt or payment is involved in the exchange.
   [b]. Credit transaction: Credit transaction will not have cash, either received or paid, for something given or received respectively.

2.*GOODS*: Fill those things which a firm purchases for resale are called goods.

3.*PURCHASES*: Purchases means purchase of goods, unless it is stated otherwise it also represents the Goods purchased.

4.*SALES*: Sales means sale of goods, unless it is stated otherwise it also represents these goods sold.

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5.***EXPENSES***: **Payments for the purchase of goods as services are known as expenses.**

6.***REVENUE***: **Revenue is the amount realized or receivable from the sale of goods or services.**

7.***ASSETS***: **The valuable things owned by the business are known as assets. These are the properties Owned by the business.**

8.***LIABILITIES***: **Liabilities are the obligations or debts payable by the enterprise in future in the term Of money or goods.**

9.***DEBTORS***: **Debtors means a person who owes money to the trader.**

10.***CREDITORS***: **A creditor is a person to whom something is owned by the business.**

11.***DRAWINGS***: **cash or goods withdrawn by the proprietor from the Business for his personal or Household is termed to as "drawing".**

12.***RESERVE***: **An amount set aside out of profits or other surplus and designed to meet contingencies.**

13.***ACCOUNT***: **A summarized statements of transactions relating to a particular person, thing, Expense or income.**

14.***DISCOUNT***: **There are two types of discounts..**

a. **cash discount: An allowable made to encourage frame payment or before the expiration of the period allowed for credit.**
b. **Trade discount: A deduction from the gross or catalogue price allowed to traders who buys them for resale.**

CLASSIFICATION OF BUSINESS TRANSACTIONS

All business transactions are classified into three categories:

1.Those relating to persons
2.Those relating to property(Assets)
3.Those relating to income & expenses

Thus, three classes of accounts are maintained for recording all business transactions. They are:

1.Personal accounts
2.Real accounts
3.Nominal accounts

1.*Personal Accounts* :Accounts which are transactions with persons are called "Personal Accounts" .
A separate account is kept on the name of each person for recording the benefits received from ,or given to the person in the course of dealings with him.
E.g.: Krishna's A/C, Gopal's A/C, SBI A/C, Nagarjuna Finanace Ltd.A/C, ObulReddy & Sons A/C , HMT Ltd. A/C, Capital A/C, Drawings A/C etc.

2.*Real Accounts*: The accounts relating to properties or assets are known as "Real Accounts" .Every business needs assets such as machinery , furniture etc, for running its activities .A separate account is maintained for each asset owned by the business .
E.g.: cash A/C, furniture A/C, building A/C, machinery A/C etc.

3.*NominalAccounts*:Accounts relating to expenses, losses, incomes and gains are known as "Nominal Accounts". A separate account is maintained for each item of expenses, losses, income or gain.
E.g.: Salaries A/C, stationery A/C, wages A/C, postage A/C, commission A/C, interest A/C, purchases A/C, rent A/C, discount A/C, commission received A/C, interest received A/C, rent received A/C, discount received A/C.

Before recording a transaction, it is necessary to find out which of the accounts is to be debited and which is to be credited. The following three different rules have been laid down for the three classes of accounts….

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1.*Personal Accounts*: The account of the person receiving benefit (receiver) is to be debited and the account of the person giving the benefit (given) is to be credited.

> ***Rule***: "Debit----The Receiver

2.*Real Accounts*: When an asset is coming into the business, account of that asset is to be debited .When an asset is going out of the business, the account of that asset is to be credited.

> ***Rule***: "Debit----What comes in

3. *Nominal Accounts*: When an expense is incurred or loss encountered, the account representing the expense or loss is to be debited . When any income is earned or gain made, the account representing the income of gain is to be credited.

> ***Rule***: "Debit----All expenses and losses

JOURNAL

The first step in accounting therefore is the record of all the transactions in the books of original entry viz., Journal and then posting into ledges.

***JOURNAL*: The word Journal is derived from the Latin word 'journ' which means a day. Therefore, journal means a 'day Book' in day-to-day business transactions are recorded in chronological order.**

Journal is treated as the book of original entry or first entry or prime entry. All the business transactions are recorded in this book before they are posted in the ledges. The journal is a complete and chronological(in order of dates) record of business transactions. It is recorded in a systematic manner. The process of recording a transaction in the journal is called "JOURNALISING". The entries made in the book are called "Journal Entries".

The proforma of Journal is given below.

Date	Particulars	L.F. no	Debit RS.	Credit RS.
1998 Jan 1	Purchases account to cash account(being goods purchased for cash)		10,000/-	10,000/-

LEDGER

All the transactions in a journal are recorded in a chronological order. After a certain period, if we want to know whether a particular account is showing a debit or credit balance it becomes very difficult. So, the ledger is designed to accommodate the various accounts maintained the trader. It contains the final or permanent record of all the

transactions in duly classified form. "A ledger is a book which contains various accounts." The process of transferring entries from journal to ledger is called "POSTING".

Posting is the process of entering in the ledger the entries given in the journal. Posting into ledger is done periodically, may be weekly or fortnightly as per the convenience of the business. The following are the guidelines for posting transactions in the ledger.

1. **After the completion of Journal entries only posting is to be made in the ledger.**
2. **For each item in the Journal a separate account is to be opened. Further, for each new item a new account is to be opened.**
3. **Depending upon the number of transactions space for each account is to be determined in the ledger.**
4. **For each account there must be a name. This should be written in the top of the table. At the end of the name, the word "Account" is to be added.**
5. **The debit side of the Journal entry is to be posted on the debit side of the account, by starting with "TO".**
6. **The credit side of the Journal entry is to be posted on the debit side of the account, by starting with "BY".**

Proforma for ledger: ***LEDGER BOOK***

Particulars account

Date	Particulars	Lfno	Amount	Date	Particulars	Lfno	Amount

sales account

Date	Particulars	Lfno	Amount	Date	Particulars	Lfno	Amount

cash account

Date	Particulars	Lfno	Amount	Date	Particulars	Lfno	Amount

TRAIL BALANCE

The first step in the preparation of final accounts is the preparation of trail balance. In the double entry system of book keeping, there will be credit for every debit and there will not be any debit without credit. When this principle is followed in writing journal entries, the total amount of all debits is equal to the total amount all credits.

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A trail balance is a statement of debit and credit balances. It is prepared on a particular date with the object of checking the accuracy of the books of accounts. It indicates that all the transactions for a particular period have been duly entered in the book, properly posted and balanced. The trail balance doesn't include stock in hand at the end of the period. All adjustments required to be done at the end of the period including closing stock are generally given under the trail balance.

DEFINITIONS: ***SPICER AND POGLAR :*****A trail balance is a list of all the balances standing on the ledger accounts and cash book of a concern at any given date.**
J.R.BATLIBOI:

A trail balance is a statement of debit and credit balances extracted from the ledger with a view to test the arithmetical accuracy of the books.

Thus a trail balance is a list of balances of the ledger accounts' and cash book of a business concern at any given date.

PROFORMA FOR TRAIL BALANCE**:**
Trail balance for MR…………………………………… as on …………

NO	NAME OF ACCOUNT (PARTICULARS)	DEBIT AMOUNT(RS.)	CREDIT AMOUNT(RS.)

Trail Balance

Specimen of trial balance

1	Capital	Credit	Loan
2	Opening stock	Debit	Asset
3	Purchases	Debit	Expense
4	Sales	Credit	Gain
5	Returns inwards	Debit	Loss
6	Returns outwards	Debit	Gain
7	Wages	Debit	Expense
8	Freight	Debit	Expense
9	Transport expenses	Debit	Expense
10	Royalities on production	Debit	Expense
11	Gas, fuel	Debit	Expense
12	Discount received	Credit	Revenue
13	Discount allowed	Debit	Loss
14	Bas debts	Debit	Loss
15	Dab debts reserve	Credit	Gain
16	Commission received	Credit	Revenue
17	Repairs	Debit	Expense
18	Rent	Debit	Expense
19	Salaries	Debit	Expense
20	Loan Taken	Credit	Loan
21	Interest received	Credit	Revenue
22	Interest paid	Debit	Expense
23	Insurance	Debit	Expense
24	Carriage outwards	Debit	Expense
25	Advertisements	Debit	Expense
26	Petty expenses	Debit	Expense
27	Trade expenses	Debit	Expense

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28	Petty receipts	Credit	Revenue
29	Income tax	Debit	Drawings
30	Office expenses	Debit	Expense
31	Customs duty	Debit	Expense
32	Sales tax	Debit	Expense
33	Provision for discount on debtors	Debit	Liability
34	Provision for discount on creditors	Debit	Asset
35	Debtors	Debit	Asset
36	Creditors	Credit	Liability
37	Goodwill	Debit	Asset
38	Plant, machinery	Debit	Asset
39	Land, buildings	Debit	Asset
40	Furniture, fittings	Debit	Asset
41	Investments	Debit	Asset
42	Cash in hand	Debit	Asset
43	Cash at bank	Debit	Asset
44	Reserve fund	Credit	Liability
45	Loan advances	Debit	Asset
46	Horse, carts	Debit	Asset
47	Excise duty	Debit	Expense
48	General reserve	Credit	Liability
49	Provision for depreciation	Credit	Liability
50	Bills receivable	Debit	Asset
51	Bills payable	Credit	Liability
52	Depreciation	Debit	Loss
53	Bank overdraft	Credit	Liability
54	Outstanding salaries	Credit	Liability
55	Prepaid insurance	Debit	Asset
56	Bad debt reserve	Credit	Revenue
57	Patents & Trademarks	Debit	Asset
58	Motor vehicle	Debit	Asset
59	Outstanding rent	Credit	Revenue

FINAL ACCOUNTS

In every business, the business man is interested in knowing whether the business has resulted in profit or loss and what the financial position of the business is at a given time. In brief, he wants to know (i)The profitability of the business and (ii) The soundness of the business.

The trader can ascertain this by preparing the final accounts. The final accounts are prepared from the trial balance. Hence the trial balance is said to be the link between the ledger accounts and the final accounts. The final accounts of a firm can be divided into two stages. The first stage is preparing the trading and profit and loss account and the second stage is preparing the balance sheet.

TRADING ACCOUNT

The first step in the preparation of final account is the preparation of trading account. The main purpose of preparing the trading account is to ascertain gross profit or gross loss as a result of buying and selling the goods.

Trading account of MR……………………. for the year ended ……………………

Particulars	Amount	Particulars	Amount
To opening stock	Xxxx	By sales xxxx	
To purchases xxxx		Less: returns xxx	Xxxx
Less: returns xx	Xxxx	By closing stock	Xxxx
To carriage inwards	Xxxx		
To wages	Xxxx		
To freight	Xxxx		
To customs duty, octroi	Xxxx		
To gas, fuel, coal, Water	Xxxx		
To factory expenses			
To other man. Expenses	Xxxx		
To productive expenses	Xxxx		
To gross profit c/d			
	Xxxx		
	Xxxx		
			Xxxx
	Xxxx		

Finally, a ledger may be defined as a summary statement of all the transactions relating to a person , asset, expense or income which have taken place during a given period of time. The up-to-date state of any account can be easily known by referring to the ledger.

PROFIT AND LOSS ACCOUNT

The business man is always interested in knowing his net income or net profit.Net profit represents the excess of gross profit plus the other revenue incomes over administrative, sales, Financial and other expenses. The debit side of profit and loss account shows the expenses and the credit side the incomes. If the total of the credit side is more, it will be the net profit. And if the debit side is more, it will be net loss.

PROFIT AND LOSS A/C OF MR……………………FOR THE YEAR ENDED…………

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PARTICULARS	AMOUNT	PARTICULARS	AMOUNT
TO office salaries	Xxxxxx	By gross profit b/d	Xxxxx
TO rent,rates,taxes	Xxxxx	Interest received	Xxxxx
TO Printing and stationery	Xxxxx	Discount received	Xxxx
TO Legal charges		Commission received	Xxxxx
Audit fee	Xxxx	Income from investments	
TO Insurance	Xxxx	Dividend on shares	
TO General expenses	Xxxx	Miscellaneous	Xxxx
TO Advertisements	Xxxxx	investments	Xxxx
TO Bad debts	Xxxx	Rent received	
TO Carriage outwards	Xxxx		xxxx
TO Repairs	Xxxx		
TO Depreciation	Xxxxx		
TO interest paid	Xxxxx		
TO Interest on capital	Xxxxx		
TO Interest on loans	Xxxx		
TO Discount allowed	Xxxxx		
TO Commission	Xxxxx		
TO Net profit-------→ (transferred to capital a/c)	Xxxxx		
	Xxxxxx		Xxxxxx

BALANCE SHEET

The second point of final accounts is the preparation of balance sheet. It is prepared often in the trading and profit, loss accounts have been compiled and closed. A balance sheet may be considered as a statement of the financial position of the concern at a given date.

DEFINITION: **A balance sheet is an item wise list of assets, liabilities and proprietorship of a business at a certain state.**

J.R.botliboi: **A balance sheet is a statement with a view to measure exact financial position of a business at a particular date.**

Thus, Balance sheet is defined as a statement which sets out the assets and liabilities of a business firm and which serves to as certain the financial position of the same on any particular date. On the left-hand side of this statement, the liabilities and the capital are shown. On the right-hand side all the assets are shown. Therefore, the two sides of the balance sheet should be equal. Otherwise, there is an error somewhere.

BALANCE SHEET OF ………………………… AS ON ……………………………………

Liabilities and capital	Amount	Assets	Amount

Creditors	Xxxx	Cash in hand	Xxxx
Bills payable	Xxxx	Cash at bank	Xxxx
Bank overdraft	Xxxx	Bills receivable	Xxxx
Loans	Xxxx	Debtors	Xxxx
Mortgage	Xxxx	Closing stock	Xxxx
Reserve fund	Xxxx	Investments	Xxxx
Capital xxxxxx		Furniture and fittings	Xxxx
Add:		Plats&machinery	
Net Profit xxxx		Land & buildings	Xxxx
-------		Patents, tm ,copyrights	Xxxx
xxxxxxx		Goodwill	Xxxx
--------		Prepaid expenses	
		Outstanding incomes	Xxxx
Less:			Xxxx
Drawings xxxx	Xxxx		Xxxx
---------	XXXX		XXXX

Advantages: **The following are the advantages of final balance .**

1. **It helps in checking the arithmetical accuracy of books of accounts.**
2. **It helps in the preparation of financial statements.**
3. **It helps in detecting errors.**
4. **It serves as an instrument for carrying out the job of rectification of entries.**
5. **It is possible to find out the balances of various accounts at one place.**

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FINAL ACCOUNTS -- ADJUSTMENTS

We know that business is a going concern. It has to be carried on indefinitely. At the end of every accounting year. The trader prepares the trading and profit and loss account and balance sheet. While preparing these financial statements, sometimes the trader may come across certain problems .The expenses of the current year may be still payable or the expenses of the next year have been prepaid during the current year. In the same way, the income of the current year still receivable and the income of the next year have been received during the current year. Without these adjustments, the profit figures arrived at or the financial position of the concern may not be correct. As such these adjustments are to be made while preparing the final accounts.

The adjustments to be made to final accounts will be given under the Trial Balance. While making the adjustment in the final accounts, the student should remember that "every adjustment is to be made in the final accounts twice i.e. once in trading, profit and loss account and later in balance sheet generally". The following are some of the important adjustments to be made at the time of preparing of final accounts:-

1. *CLOSING STOCK* :-

(i)*If closing stock is given in Trail Balance*: It should be shown only in the balance sheet "Assets Side".

(ii)*If closing stock is given as adjustment* :

1. **First, it should be posted at the credit side of "Trading Account".**
2. **Next, shown at the asset side of the "Balance Sheet".**

2.*OUTSTANDING EXPENSES* :-

(i)*If outstanding expenses given in Trail Balance*: It should be only on the liability side of Balance Sheet.

(ii)*If outstanding expenses given as adjustment* :

1. **First, it should be added to the concerned expense at the debit side of profit and loss account or Trading Account.**
2. **Next, it should be added at the liabilities side of the Balance Sheet.**

3.*PREAPID EXPENSES* :-

(i)*If prepaid expenses given in Trial Balance*: It should be shown only in assets side of the Balance Sheet.
(ii)*If prepaid expense given as adjustment* :

1. **First, it should be deducted from the concerned expenses at the debit side of profit and loss account or Trading Account.**
2. **Next, it should be shown at the assets side of the Balance Sheet.**

4.*INCOME EARNED BUT NOT RECEIVED [OR] OUTSTANDING INCOME [OR] ACCURED INCOME* :-

(i)*If incomes given in Trial Balance*: It should be shown only on the assets side of the Balance Sheet.

(ii)*If incomes outstanding given as adjustment*:

1. **First, it should be added to the concerned income at the credit side of profit and loss account.**
2. **Next, it should be shown at the assets side of the Balance sheet.**

5. *INCOME RECEIVED IN ADVANCE: UNEARNED INCOME*:-
(i)*If unearned incomes given in Trail Balance* : It should be shown only on the liabilities side of the Balance Sheet.

(ii)*If unearned income given as adjustment* :

1. **First, it should be deducted from the concerned income in the credit side of the profit and loss account.**

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2. **Secondly, it should be shown in the liabilities side of the Balance Sheet.**

6.*DEPRECIATION*:-

(i)*If Depreciation given in Trail Balance*: It should be shown only on the debit side of the profit and loss account.

(ii)*If Depreciation given as adjustment*

1. **First, it should be shown on the debit side of the profit and loss account.**
2. **Secondly, it should be deduced from the concerned asset in the Balance sheet assets side.**

7.*INTEREST ON LOAN [OR] CAPITAL* :-

(i)*If interest on loan (or) capital given in Trail balance* :It should be shown only on debit side of the profit and loss account.

(ii)*If interest on loan (or)capital given as adjustment* :

1. **First, it should be shown on debit side of the profit and loss account.**
2. **Secondly, it should added to the loan or capital in the liabilities side of the Balance Sheet.**

8.*BAD DEBTS*:-

(i)*If bad debts given in Trail balance* :It should be shown on the debit side of the profit and loss account.

(ii)*If bad debts given as adjustment*:

1. **First, it should be shown on the debit side of the profit and loss account.**
2. **Secondly, it should be deducted from debtors in the assets side of the Balance Sheet.**

9.*INTEREST ON DRAWINGS* :-

(i)*If interest on drawings given in Trail balance*: It should be shown on the credit side of the profit and loss account.

(ii)*If interest on drawings given as adjustments* :

1. **First, it should be shown on the credit side of the profit and loss account.**
2. **Secondly, it should be deducted from capital on liabilities side of the Balance Sheet.**

10.*INTEREST ON INVESTMENTS* :-

(i)*If interest on the investments given in Trail balance* :It should be shown on the credit side of the profit and loss account.

(ii)*If interest on investments given as adjustments* :

1. **First, it should be shown on the credit side of the profit and loss account.**
2. **Secondly, it should be added to the investments on assets side of the Balance Sheet.**

Note: Problems to be solved on final accounts

SUBSIDIARY BOOKS

In a small business concern, the numbers of transactions are limited. These transactions are first recorded in the journal as and when they take place. Subsequently, these transactions are posted in the appropriate accounts of the ledger. Therefore, the journal is known as "Book Of Original Entry" or "Book of Prime Entry" while the ledger is known as main book of accounts.

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On the other hand, the transactions in big concern are numerous and sometimes even run into thousands and lakhs. It is inconvenient and time wasting process if all the transactions are going to be managed with a journal.

Therefore, a convenient device is made. Smaller account books known as subsidiary books or subsidiary journals are disturbed to various sections of the business house. As and when transactions take place, they are recorded in these subsidiary books simultaneously without delay. The original journal (which is known as Journal Proper) is used only occasionally to record those transactions which cannot be recorded in any of the subsidiary books.

***TYPES OF SUBSIDIARY BOOKS*:-- Subsidiary books are divided into eight types. They are,**

1.Purchases Book
2.Sales Book
3.Purchase Returns Book
4.Sales Returns Book
5.Cash Book
6.Bills Receivable Book
7.Bills Payable Book
8.Journal Proper

1. *PURCHASES BOOK* :- This book records all credit purchases only. Purchase of goods for cash and purchase of assets for cash. Credit will not be recorded in this book. Purchases book is otherwise called Purchases Day Book, Purchases Journal or Purchases Register.

2. *SALES BOOK* :-This book is used to record credit sales only. Goods are sold for cash and sale of assets for cash or credit will not be recorded in this book. This book is otherwise called Sales Day Book, Sales Journal or Sales Register.

3.*PURCHASE RETURNS BOOK* :- This book is used to record the particulars of goods returned to the suppliers .This book is otherwise called Returns Outward Book.

4.*SALES RETURNS BOOK* :- This book is used to record the particulars of goods returned by the customers. This book is otherwise called Returns Inward Book.

5.*CASH BOOK* :- All cash transactions , receipts and payments are recorded in this book. Cash includes cheques, money orders etc.

6.*BILLS REECEIVABLE BOOK* :- This book is used to record all the bills and promissory notes are received from the customers.

7.*BILLS PAYABLE BOOK* :- This book is used to record all the bills or promissory notes accepted to the suppliers.

8.*JOURNAL PROPER* :- This is used to record all the transactions that cannot be recorded in any of the above mentioned subsidiary books.

FORMAT FOR PURCHASE BOOK

Date	Name of supplier	Invoice No	Lf no	Details	Amount(Rs.)

FORMAT FOR SALES BOOK

Date	Name of customer	Invoice	Lf no	Details	Amount(Rs.)

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		No			

FORMAT FOR PURCHASE RETURNS BOOK

Date	Name of supplier	Debit note No	Lf no	Details	Amount(Rs.)

FORMAT FOR SALES RETURNS BOOK

Date	Name of supplier	Credit note No	Lf no	Details	Amount(Rs.)

CASH BOOK

Cash book plays an important role in accounting. Whether transactions made are in the form of cash or credit, final statement will be in the form of receipt or payment of cash. So, every transaction finds place in the cash book finally.

Cash book is a principal book as well as the subsidiary book. It is a book of original entry since the transactions are recorded for the first time from the source of documents. It is a ledger in a sense it is designed in the form of cash account and records cash receipts on the debit side and the cash payments on the credit side. Thus, a cash book fulfils the functions of both a ledger account and a journal.

Cash book is divided into two sides. Receipt side (debit side) and payment side (credit side). The method of recording cash sample is very simple. All cash receipts will be posted on the debit side and all the payments will be recorded on the credit side.

Types of cash book: **cash book may be of the following types according to the needs of the business.**

- **Simple cash book**
- **Double column or two column cash book**
- **Three column cash book**
- **Petty cash book**

SINGLE COLUMN CASH BOOK: **The simple cash book is a record of only cash transactions. The model of the cash book is given below.**

CASH BOOK

Date	Particulars	Lf no	Amount	Date	Particulars	Lf no	Amount

TWO

COLUMN CASH BOOK: **This book has two columns on each side one for discount and the other for cash. Discount column on debit side represents loss being discount allowed to customers. Similarly, discount column on credit side represents gain being discount received.**

Discount may be two types.

(i)Trade discount
(ii)cash discount

TRADE DISCOUNT: **when a retailer purchases goods from the wholesaler, he allows some discount on the catalogue price. This discount is called as Trade discount. Trade discount is adjusted in the invoice and the net amount is recorded in the purchase book. As such it will not appear in the book of accounts.**

CASH DISCOUNT: **When the goods are purchased on credit, payment will be made in the future as agreed by the parties. If the amount is paid early as promptly a discount by a way of incentive will be allowed by the seller to the buyer. This discount is called as cash discount. So cash discount is the discount allowed by the seller to encourage prompt payment from the buyer. Cash discount is entered in the discount column of the cash book. The discount recorded in the debit side of the cash book is discount allowed. The discount recorded in the credit side of the cash book is discount received.**

CASH DISCOUNT COLUMN CASH BOOK

Date	Particulars	Lf no	Disc. Allo wed	cash	Date	Particulars	Lf No	Disc Recei Ved.	cash

PETTY CASH BOOK: **We have seen that all the cash receipts and payments will be recorded in the cash book. But in the case of big concerns if all transactions like postage, cleaning charges, etc., are recorded in the cash book, the cash book becomes bulky and un wieldy. So, all petty disbursement of cash is recorded in a separate cash book called petty cash book.**

Note: Problems to be solved on subsidiary books

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UNIT - VIII
FINANCIAL ANALYSIS THROUGH RATIOS

Ratio Analysis

Absolute figures are valuable but they standing alone convey no meaning unless compared with another. Accounting ratio show inter-relationships which exist among various accounting data. When relationships among various accounting data supplied by financial statements are worked out, they are known as accounting ratios.

Accounting ratios can be expressed in various ways such as:

1. **a pure ratio says ratio of current assets to current liabilities is 2:1 or**
2. **a rate say current assets are two times of current liabilities or**
3. **a percentage say current assets are 200% of current liabilities.**

Each method of expression has a distinct advantage over the other the analyst will selected that mode which will best suit his convenience and purpose.

Uses or Advantages or Importance of Ratio Analysis

Ratio Analysis stands for the process of determining and presenting the relationship of items and groups of items in the financial statements. It is an important technique of financial analysis. It is a way by which financial stability and health of a concern can be judged. The following are the main uses of Ratio analysis:

(i) Useful in financial position analysis: Accounting reveals the financial position of the concern. This helps banks, insurance companies and other financial institution in lending and making investment decisions.

(ii) Useful in simplifying accounting figures: Accounting ratios simplify, summaries and systematic the accounting figures in order to make them more understandable and in lucid form.

(iii) Useful in assessing the operational efficiency: Accounting ratios helps to have an idea of the working of a concern. The efficiency of the firm becomes evident when analysis is based on accounting ratio. This helps the management to assess financial requirements and the capabilities of various business units.

(iv) Useful in forecasting purposes: If accounting ratios are calculated for number of years, then a trend is established. This trend helps in setting up future plans and forecasting.

(v) Useful in locating the weak spots of the business: Accounting ratios are of great assistance in locating the weak spots in the business even through the overall performance may be efficient.

(vi) Useful in comparison of performance: Managers are usually interested to know which department performance is good and for that he compare one department with the another department of the same firm. Ratios also help him to make any change in the organisation structure.

Limitations of Ratio Analysis: These limitations should be kept in mind while making use of ratio analyses for interpreting the financial statements. The following are the main limitations of ratio analysis.

1. **False results if based on incorrect accounting data: Accounting ratios can be correct only if the data (on which they are based) is correct. Sometimes, the information given in the financial statements is affected by window dressing, i. e. showing position better than what actually is.**
2. **No idea of probable happenings in future: Ratios are an attempt to make an analysis of the past financial statements; so they are historical documents. Now-a-days keeping in view the complexities of the business, it is important to have an idea of the probable happenings in future.**
3. **Variation in accounting methods: The two firms' results are comparable with the help of accounting ratios only if they follow the some accounting methods or bases. Comparison will become difficult if the two concerns follow the different methods of providing depreciation or valuing stock.**
4. **Price level change: Change in price levels make comparison for various years difficult.**

5. **Only one method of analysis: Ratio analysis is only a beginning and gives just a fraction of information needed for decision-making so, to have a comprehensive analysis of financial statements, ratios should be used along with other methods of analysis.**
6. **No common standards: It is very difficult to by down a common standard for comparison because circumstances differ from concern to concern and the nature of each industry is different.**
7. **Different meanings assigned to the some term: Different firms, in order to calculate ratio may assign different meanings. This may affect the calculation of ratio in different firms and such ratio when used for comparison may lead to wrong conclusions.**
8. **Ignores qualitative factors: Accounting ratios are tools of quantitative analysis only. But sometimes qualitative factors may surmount the quantitative aspects. The calculations derived from the ratio analysis under such circumstances may get distorted.**
9. **No use if ratios are worked out for insignificant and unrelated figure: Accounting ratios should be calculated on the basis of cause and effect relationship. One should be clear as to what cause is and what effect is before calculating a ratio between two figures.**

Ratio Analysis: Ratio is an expression of one number is relation to another. It is one of the methods of analyzing financial statement. Ratio analysis facilities the presentation of the information of the financial statements in simplified and summarized from. Ratio is a measuring of two numerical positions. It expresses the relation between two numeric figures. It can be found by dividing one figure by another ratios are expressed in three ways.

1. **Jines method**
2. **Ratio Method**
3. **Percentage Method**

Classification of ratios: All the ratios broadly classified into four types due to the interest of different parties for different purposes. They are:

1. **Profitability ratios**
2. **Turn over ratios**
3. **Financial ratios**
4. **Leverage ratios**

1. **Profitability ratios: These ratios are calculated to understand the profit positions of the business. These ratios measure the profit earning capacity of an enterprise. These ratios can be related its save or capital to a certain margin on sales or profitability of capital employ. These ratios are of interest to management. Who are responsible for success and growth of enterprise? Owners as well as financiers are interested in profitability ratios as these reflect ability of enterprises to generate return on capital employ important profitability ratios are:**

   Profitability ratios in relation to sales: Profitability ratios are almost importance of concern. These ratios are calculated is focus the end results of the business activities which are the sole eritesiour of overall efficiency of organisation.

   1. Gross profit ratio: x $\frac{\text{gross profit}}{\text{Nest sales}}$ **100**

   Note: Higher the ratio the better it is

2. **Net profit ratio: X** $\frac{\text{Net profit after interest \& Tax}}{\text{Net sales}}$ **100**

Note: Higher the ratio the better it is

3. **Operating ratio (Operating expenses ratio)**

   $\frac{\text{Cost of goods sold + operating exenses}}{\text{Net sales}}$ **X 100**

   Net: Lower the ratio the better it is

4. **Operating profit ratio:** $\frac{\text{Operating profit}}{\text{Net sales}}$ **X 100 = 100 operating ratio**

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Note: Higher the ratio the better it is cost of goods sold= opening stock + purchase + wages + other direct expenses- closing stock (or) sales – gross profit.

Operating expenses:

= administration expenses + setting, distribution expenses operating profit= gross profit – operating expense.

Expenses ratio = $\frac{\text{concern expense}}{\text{Net sales}}$ **X 100**

Note: Lower the ratio the better it is

Profitability ratios in relation to investments:

1. **Return on investments:** $\frac{\text{Net profit after tax \& latest depreciation}}{\text{share holders funds}}$ **X 100**

Share holders funds = equity share capital + preference share capital + receives & surpluses +undistributed profits.

Note: Higher the ratio the better it is

2. Return on equity capital: $\frac{\text{Net Profit after tax \& interest - preference divident}}{\text{equity share capital}}$ **X 100**

Note: Higher the ratio the better it is

3. Earnings per share= $\frac{\text{Net profit after tax - preferecne divident}}{\text{No. of equity shares}}$

4. Return on capital employed = $\frac{\text{operating profit}}{\text{capital employed}}$ **x 100**

5. Return on total assets = $\frac{\text{N. P. after tax and interest}}{\text{Total Assets}}$

Here, capital employed = equity share capital + preference share capital + reserves & surpluses + undistributed profits + debentures+ public deposit + securities + long term loan + other long term liability – factious assets (preliminary expressed & profit & loss account debt balance)

II. Turn over ratios or activity ratios:

These ratios measure how efficiency the enterprise employees the resources of assets at its command. They indicate the performance of the business. The performance if an enterprise is judged with its save. It means ratios are also laced efficiency ratios.

These ratios are used to know the turn over position of various things in the ____________. The turnover ratios are measured to help the management in taking the decisions regarding the levels maintained in the assets, and raw materials and in the funds. These ratio s are measured in ratio method.

1. Stock turnover ratio = $\frac{\text{cost of goods sold}}{\text{average stock}}$

Here,

Average stock= $\frac{\text{opening stock} + \text{closing stock}}{2}$

Note: Higher the ratio, the better it is

2. Working capital turnover ratio = $\frac{\text{sales}}{\text{working capital}}$

Note: Higher the ratio the better it is working capital = current assets – essential liabilities.

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3. Fixed assets turnover ratio = $\frac{\text{sales}}{\text{fixed assets}}$

Note: Higher the ratio the better it is.

3 (i) Total assets turnover ratio is : $\frac{\text{sales}}{\text{total assets}}$

Note: Higher the ratio the better it is.

4. Capital turnover ratio= $\frac{\text{Sales}}{\text{Capital employed}}$

Note: Higher the ratio the better it is

5. Debtors turnover ratio= $\frac{\text{credits sales or sales}}{\text{average debtors}}$

5(i)= Debtors collection period= $\frac{365 \text{ (or) } 12}{\text{Turnove ratio}}$

Here,
Average debtors = $\frac{\text{opening debitors} + \text{closing bebtors}}{2}$

Debtors = debtors + bills receivable

Note: Higher the ratio the better it is.

6. Creditors turnover ratio = $\frac{\text{credit purchasers or purchases}}{\text{average credetors}}$

6 (i) creditors collection period= $\frac{365 \text{ (or) } 12}{\text{Creditor turnover ratio}}$

Here,
Average creditor= $\frac{\text{opening} + \text{closing credetors}}{2}$

Creditors = creditors + bills payable.

Note: lower the ratio the better it is.

3. Financial ratios or liquidity ratios:

Liquidity refers to ability of organisation to meet its current obligation. These ratios are used to measure the financial status of an organisation. These ratios help to the management to make the decisions about the maintained level of current assets & current libraries of the business. The main purpose to calculate these ratios is to know the short terms solvency of the concern. These ratios are useful to various parties having interest in the enterprise over a short period – such parties include banks. Lenders, suppliers, employees and other.

The liquidity ratios assess the capacity of the company to repay its short term liabilities. These ratios are calculated in ratio method.

Current ratio = $\frac{\text{current assets}}{\text{current liabilitie s}}$

Note: The ideal ratio is 2:1
i. e., current assets should be twice. The current liabilities.

Quick ratio or liquid ratio or acid test ratio: $\frac{\text{quick assets}}{\text{current liabilitie s}}$

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Quick assets = cash in hand + cash at bank + short term investments + debtors + bills receivables short term investments are also known as marketable securities.
Here the ideal ratio is 1:1 is, quick assets should be equal to the current liabilities.

Absolute liquid ratio= $\frac{\text{absolute liquid assets}}{\text{current liabilitie s}}$

Here,
Absolute liquid assets=cash in hand + cash at bank + short term investments + marketable securities.

Here, the ideal ratio is 0,0:1 or 1:2 it, absolute liquid assets must be half of current liabilities.

Leverage ratio of solvency ratios: Solvency refers to the ability of a business to honour long item obligations like interest and installments associated with long term debts. Solvency ratios indicate long term stability of an enterprise. These ratios are used to understand the yield rate if the organisation.

Lenders like financial institutions, debenture, holders, banks are interested in ascertaining solvency of the enterprise. The important solvency ratios are:

1. Debt – equity ratio= = $\frac{\text{outsiders funds}}{\text{share holders funds}}$ $\frac{\text{Debt}}{\text{Equity}}$

Here,
Outsiders funds = Debentures, public deposits, securities, long term bank loans + other long term liabilities.

Share holders funds = equity share capital + preference share capital + reserves & surpluses + undistributed projects.

The ideal ratio is 2:1

2. Preprimary ratio or equity ratio= $\frac{\text{share holder funds}}{\text{total assets}}$
The ideal ratio is 1:3 or 0.33:1

3. Capital – greasing ratio:

$$= \frac{(\text{equity share capital} + \text{reserves \& surplusses} + \text{undistributed projects})}{(\text{Outsiders funds} + \text{preference share capital})}$$

Here,

higher gearing ratio is not good for a new company or the company in which future earnings are uncertain.

11. Debt to total fund ratio= $\frac{\text{outsiders funds}}{\text{capital employed}}$

Capital employed= outsiders funds + share holders funds = debt + equity.
The ideal ratio is 0.6.7 :1 or 2:3

QUIZ

1. A company's 'return on investment' indicates its ____. ( )
(a) Solvency (b) Stock turnover
(c) Profitability (d) Debtors collection

2. Which would a business be most likely to use its 'solvency' ( )
(a) Gross profit ratio (b) Debtors collection period
(c) Debt – Equity ratio (d) Current ratio

3. Higher 'Assets turnover ratio' explains ____. ( )
(a) More profitability (b) Higher sales turnover
(c) Better utilization of assets (d) large liability base

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4. Which of the following measures company's liquidity position ( )
(a) Stock Turnover ratio (b) Debtor's collection period
(c) Current ratio (d) Net profit ratio

5. The difference between current assets and current liabilities is called___. ( )
(a) Cost of goods sold (b) Outsiders funds
(c) Working capital (d) Shareholders funds

6. Debtor's is a current asset, where as creditor's is ________. ( )
(a) Fixed Asset (b) Fixed Liability
(c) Current Liability (d) Long-term Liability

7. What is the Desirable current Ratio ______? ( )
(a) 1:2 (b) 3:2 (c) 2:1 (d) 1:1

8. Long-term stability of an enterprise indicates by ____ ratios. ( )
(a) Liquidity (b) Profitability
(c) Solvency (d) Turnover

9. The Liquidity ratios assess the capacity of the company to repay Its_____________ Liability. ( )
(a) Long-term (b) Profitability
(c) Solvency (d) Turnover

10. In which Book-keeping system, business transactions are recorded as two separate accounts at the same time? ( )
(a) Single entry (b) Triple entry
(c) Double entry (d) None

11. In which Concept "Business is treated separate from the Proprietor? ( )
(a) Cost concept (b) Dual aspect concept
(c) Business entity concept (d) Matching concept

12. When a deduction allowed from the gross or catalogue price to traders; then it is called as ____. ( )
(a) Cash discount (b) Credit discount
(c) Trade discount (d) None

13. "Out standing wages" is treated as _________. ( )
(a) Asset (b) Expense
(c) Liability (d) Income

14. How many types of accounts are maintained to record all types of business transactions? ( )
(a) Five (b) four
(c) Three (d) Two

15. Which connects the link between Journal and Trial Balance? ( )
(a) Trading Account (b) Profit & Loss account
(c) Ledger (d) Balance sheet

16. Which assets can be converted into cash in short period? ( )
(a) Fixed Assets (b) Intangible Assets
(c) Current Assets (d) Fictious Assets

17. "Bank over draft" is a ________. ( )
(a) Asset (b) Expense
(c) Liability (d) Income

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18. Profit and Loss account is prepared to find out the business ____. ( )

(a) Gross result (b) Financial position

(c) Net result (d) Liquidity position

19. The statement of "Debit and credit balances of Ledger accounts" is called as _________. ( )

(a) Journal (b) Ledger

(c) Trial balance (d) Balance sheet

20. _____ is a person who owes money to the firm. ( )

(a) Creditor (b) Owner

(c) Debtor (d) Share holder

21. The statement reveals the financial positions of a business at any given date is called __________. ( )

(a) Trading account (b) Profit and loss account

(c) Balance sheet (d) Trial balance

22. ______ is called as 'Book of Original Entry'. ( )

(a) Ledger (b) Trial Balance

(c) Journal (d) Trading account

23. Debit what comes in; Credit what goes out is ____ account principle? ( )

(a) Nominal (b) Personal

(c) Real (d) None

24. The process of entering transactions in to Ledge accounts known as __. ( )

(a) Journal entry (b) First entry

(c) Posting (d) None

25. Debit Expenses and Losses; Credit Incomes and Gains is ___ account Principle ( )

(a) Personal (b) Real

(c) Nominal (d) None

26. "Prepaid Insurance Premium" is treated as _________. ( )

(a) Gain (b) Income

(c) Asset (d) Liability

27. Acid Test Ratio is also called as ________. ( )

(a) Current Ratio (b) Absolute Liquid Ratio

(c) Quick Ratio (d) Debt-Equity Ratio

28. The relationship between two numerical values is called as ____. ( )

(a) Account (b) Ledger

(c) Ratio (d) Discount

29. "Gross Profit" can be found out by preparing _______. ( )

(a) Profit and Loss account (b) Balance sheet

(c) Trading account (d) Trial balance

30. "Net Profit" can be found out by preparing _______. ( )

(a) Trading account (b) Trial balance

(c) Profit and Loss account (d) Balance sheet

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Note: Answer is "C" for all the above questions.

15. ADDITIONAL TOPICS

1. **Engineering Applications to ME & Real life Estimation of Market**
2. **Estimating reasons for sales variations & use of Forecasting Methods**
3. **Estimating Capacities(Ideal, operating, attainable, installed, License & Reg/)**
4. **Estimations of No Profit & No Loss with cash & production BEP**
5. **Existing Licensing Procedure for AP State Licensing & Notified Areas, SEZ**
6. **Long Term Capital Expenditure Planning & New Project Development**
7. **Use of Latest software's for MIS Reporting use of Accounting Reports**
8. **Financial Analysis by using news available in Balance Sheet & news papers**

16. UNIVERSITY QUESTION PAPERS

II B.Tech. II-Semester Supplementary Examinations, Nov/Dec-2004

MANAGERIAL ECONOMICS AND PRINCIPLES OF ACCOUNTANCY

(Computer Science and Engineering)

Time: 3 hours **Max Marks: 70**

Answer any FIVE Questions

All Questions carry equal marks

- - -

1. **Define managerial economics and discuss its scope.**
2. **What is the significance of demand analysis to the managerial economist?**
3. **What are the Laws of variable proportions? Explain the three laws of production.**
4. **"While managerial cost is essentially incremental cost, incremental cost is not so". Explain.**
5. **Price is higher and scale of output is smaller under monopolistic competition than under perfect competition. Explain.**
6. **Explain various accounting concepts in detail with suitable examples.**
7. **Mr. Krishnan wishes to commence a new trading business and gives the following information:**
   a) **The total estimated sales in a year will be Rs.12, 00,000.**

b) His expenses are estimated as fixed expenses of Rs.2000 per month plus variable expenses equal to five percent of his turnover.

c) He expects to fix the sales price for each product, which will be 25 percent in excess of his cost of purchase.

d) He expects to turnover his stock four times in a year.

e) The sales and purchases will be evenly spread through out the year. All sales will be for cash but he expects one month's credit for purchases.

Calculate his estimated profit for the year and his average working capital requirements.

8. A project requires an investment of Rs.10,00,000. The plant and machinery required under the profit will have a scrap value of Rs.80,000 at the end of its useful life of 5 years. The profits after tax and depreciation are estimated to be as follows: -

Year	Rupees
1	50,000
2	75,000
3	1,25,000
4	1,30,000
5	80,000

Calculate the Accounting Rate of Return.

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MANAGERIAL ECONOMICS AND PRINCIPLES OF ACCOUNTANCY

(Common to Civil Engineering, Electronics and Communication Engineering and Information Technology)

Time: 3 hours Max Marks: 70

Answer any FIVE Questions

All Questions carry equal marks

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1. "Managerial Economics is the integration of economic theory with business practice for the purpose of facilitating decision making and forward planning by management". Explain.

2. What is production function? State and illustrate 'Cob Douglas production Function'.

3. Explain briefly the various methods of forecasting demand and point out their limitations.

4. What is Break Even Analysis? Explain its managerial application.

5. What is monopoly? Explain how price-output decisions are taken under conditions of monopoly.

6. Outline the advantages of a public limited joint stock company vis-à-vis sole proprietary and partnership concerns.

7. What are the important ratios that are used in analysis and interpretation of financial statements?
8. From the following Trial Balance, extracted from the books of Rakhaldas Ramji, prepare a Trading and profit and Loss Account for the year ended 31 st December 2001 and a Balance Sheet as on that date:

	Dr.(Rs.)	Cr.(Rs.)
R.R's Capital Account		90,000

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Particulars	Dr.	Cr.
R.R's Drawings Account	6,480	
Land and Buildings	25,000	
Plant and Machinery	14,270	
Furniture and Fixtures	1,250	
Carriage (Inwards)	4,370	
Wages (Manufacturing)	21,470	
Salaries	4,670	
Bad Debts Reserve		2,470
Sales		91,250
Sales Returns	1,760	
Bank Charges	140	
Coal, Gas and Water	720	
Rates and Taxes	840	
Discounts Account (balance)		120
Purchases	42,160	
Purchase Returns		8,460
Bills Receivable	1,270	
Trade Expenses	1,990	
Sundry Debtors	37,800	
Sundry Creditors		12,170
Stock	26, 420	
Apprentice Premium (paid by an apprentice in factory)		500
Fire Insurance	490	
Cash at Bank	13,000	
Cash in Hand	850	
	2,04,950	2,04,950

Charge Depreciation on Land and Buildings Account at $2^{1}/2$% on plant and Machinery Account at 10%, and on Furniture and Fixtures Account at 10%. Make a reserve of 5% on the Sundry Debtors for Bad Debts. The value of stock as on 31st December 2001 was Rs.29,390.

1. payment of salaries, taxes etc.

III B.Tech. I-Semester Regular Examinations, November-2004
MANAGERIAL ECONOMICS AND FINANCIAL ANALYSIS
(Common to Civil Engineering, Bio-Technology, Mechanical Engineering and Metallurgy and Material Technology)

Time: 3 hours   Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks
- - -

1. What is managerial economics? Explain its focus areas.
2. Why does the Law of Diminishing Returns operate? Explain with the help of a diagram.
3. When maximal cost (M C) Average cost (AC) change (a) at the same rate, (b) at a higher rate or (c) at a lower rate? Illustrate your answer through a diagram.
4. Explain how an individual firm attains equilibrium in the short run and in the long run under conditions of Perfect Competition.
5. Define a Joint-stock Company and explain its basic features.
6. What do you understand by working capital cycle and what is its importance?
7. a) What is Trial Balance? Why it is prepared? b) From the following list of balances prepare a Trial Balance as on 30-6-2003

Rs.   Rs.

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i.	Opening stock	1,800	xiii.	Plant	750
ii.	Wages	1,000	xiv.	Machine Tools	180
iii.	sales	12,000	xv.	Lighting	230
iv.	bank loan	440	xvi.	Creditors	800
v	coal and coke	300	xvii.	Capital	4,000
vi	purchases	7,500	xviii.	Misc.receipts	60
vii.	repairs	200	xix.	Office salaries	250
viii.	carriage	150	xx	Office furniture	60
ix.	income tax	150	xxi	Patents	100
x	debtors	2,000	xxii.	Goodwill	1,500
xi	leasehold premises	600	xxiii.	Cash at bank	510
xii.	Cash in hand	20			

8. Explain and illustrate the types and significance of
a)Profitability ratios b) Operating Ratio.

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Code No: RR-310106

III B.Tech. I-Semester Regular Examinations, November-2004

MANAGERIAL ECONOMICS AND FINANCIAL ANALYSIS

(Common to Civil Engineering, Bio-Technology, Mechanical Engineering and Metallurgy and Material Technology)

Time: 3 hours Max Marks: 80

Answer any FIVE Questions

All Questions carry equal marks

- - -

1. Point out the importance of managerial economics in decision-making.
2. Explain the nature and uses of production function?
3. What cost concepts are mainly used for managerial decision-making? Illustrate.
4. How does a Monopoly firm attain equilibrium under different cost conditions?
5. Write short notes on (a) Sole Trader (b) Stationary Corporation.

6. a) Describe the institutions providing long term finances.b) What are the different market situations in imperfect competition?

7. a) How do you know that given Trail balance is correct or not?

b) From the following Ledger Account balances prepare a Trial Balance as on 31-12-2002.

		Rs.			Rs
i.	Opening Stock	15,600	xvi.	Insurance	400
ii.	Freehold premises	30,000	xvii.	Bad reserve	300
iii	Plant & Machinery	9,000	xviii.	Commission Received	3,000
iv.	Wages	2,000	xix.	Commission paid	1,000
v.	Sundry debtors	12,000	xx	Bad debts	300
vi	Carriages inwards	180	xxi	Office expenses	1,500
vii	Carriage outwards	200	xxi	Salaries	2,000
viii	Factory expenses	1,600	xxiii.	Traveling expenses	200
ix.	Royalty	200	xxiv.	Legal expenses	200
x.	Purchase of Machinery	15,000	xxv	Cash at bank	840
xi.	Office Rent	1,400	xxvi.	Cash in hand	800
xii.	Capital	16,000	xxvii	Loan taken	6,000
xiii.	Discount Allowed	800	xxviii	Office rent	800
xiv.	Discount received	720	xxix	Net sales	66,000
xv.	Sundry creditors	4,000			

Contd…2

8. Given the following information from the Kamal Plastics Limited, compute (a) Assets turnover (b) Return on Equity (c) Return on Assets (d) Net profit Ratio and comment of the results.

	2001	2002
Net Sales	86,000	71,000
Profit after taxes	12,000	11,000
Total assets	49,000	41,000
Shareholder's equity	27,000	21,000

3.

Code No: RR-310106

III B.Tech. I-Semester Regular Examinations, November-2004

MANAGERIAL ECONOMICS AND FINANCIAL ANALYSIS

(Common to Civil Engineering, Bio-Technology, Mechanical Engineering and Metallurgy and Material Technology)

Time: 3 hours Max Marks: 80

Answer any FIVE Questions

All Questions carry equal marks

1. What is meant by elasticity of demand? How do you measure it?

2. Explain and illustrate Laws of Returns.
3. The PV ratio of Matrix Books Ltd, is 40% and the margin of safety is 30%. You are required to work out the BEP and Net Profit, if the sales volume is Rs. 14,000.
4. Compare and contrast perfectly Competitive Firm and Monopoly Firm.
5. Explain the basic features of government company form of Public Enterprise.
6. What do you understand by Net Present value method of appraising long-term investment proposal? Explain with the help of an example of your choice.
7. Record the following transactions in the suitable form of cash book

2004 Jan 1	Started business with cash	20,000
2	Paid for purchase of machinery from M/s. Ram and Co.	3,000
3	Paid insurance premium	200
5	Paid rent for the month of Dec'2003	500
8	Paid cash for purchase of goods	3,000
10	Sold goods for cash	4,000
12	Drew cash for personal use	500
14	Paid Arun Rs.400 in full settlement of Rs.500	
15	Received cash from Karuna Rs. 1000 in full settlement of Rs.1,050	

Also prepare cash Account.

8. Calculate the Gross profit Margin and Net operating margin and Operating ratio given the following information.

Sales Rs. 10,00,000
Cost of goods Rs. 6,00,000
Selling and administrative costs Rs. 2,00,000
Depreciation Rs. 1,00,000

Also Comment on the results

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III B.Tech. I-Semester Regular Examinations, November-2004

MANAGERIAL ECONOMICS AND FINANCIAL ANALYSIS

(Common to Civil Engineering, Bio-Technology, Mechanical Engineering and Metallurgy and Material Technology)

Time: 3 hours Max Marks: 80

Answer any FIVE Questions

All Questions carry equal marks

- - -

1. Define Elasticity of demand. Explain different types of price Elasticity of demand.

2. a) Explain how production function can be made use of to reduce cost of Production?

b) Explain Law of increasing returns? Also Illustrate.

3. A company reported the following results for two periods.

Period	Sales	Profit
I	Rs.20,00,000	Rs.2,00,000
II	Rs.25,00,000	Rs.3,00,000

Ascertain the BEP, P V Ratio, Fixed Cost and margin of safety.

4. What is Price discrimination? Discuss the different ways of Price discrimination.

5. Define Joint Stock Company? Explain its advantages and disadvantages.

6. A company is considering two investment opportunities (A and B) that cost Rs.4,00,000 and Rs.3,00,000 respectively. The first project generates Rs. 1,00,000 a year for four years. The second generates Rs. 60,000, Rs.1,00,000, Rs.80,000 Rs. 90,000 and Rs.70,000 over a five year period . The company's cost of capital is 8%. Which project will you choose under NPV method?

7. What is three column cash book? What is contra Entry? Illustrate.

8. Calculate (a) Net Sales to Fixed Assets (b) Net Sales to Inventory (c) Net Profit Ratios given the following and explain their significance in decision making.

Rs.

Net Sales 10,00,000

Fixed Assets 8,00,000

= Inventory 2,20,000

Net profit after taxes 69,840

II B.Tech I–Semester Regular Examinations, November-2004

MANAGERIAL ECONOMICS AND FINANCIAL ACCOUNTANCY

(Common to Electronics and Telematics, Electronics and Computer Engineering and Instrumentation and Control Engineering)

Time: 3 hours Max. Marks: 80

Answer any Five questions

All questions carry equal marks

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1. Explain briefly the following methods of forecasting demand.

a) Barometric method

b) Expert opinion method

c) Time series analysis

2. Explain and illustrate the following:

a) The Law of Constant Returns

b) The Law of increasing Returns

3. If the sales is 10,000 units, selling price is Rs.20 per unit, variable cost is Rs.10 per unit and fixed cost is Rs.80,000. Find out BEP in units and in sales revenue. What is the profit earned? What should be the sales for earning a profit of Rs.60,000?

4. Explain the role of time factor in the determinations of price. Also explain price output determination in case of perfect competition.

5. Explain the features of sole trader form of organisation. Discuss the advantages and limitations of sole trader form of organization.

6.a) A project involves initial outlay of Rs. 1,29,600. Its working life is expected to be 3 years. The cash inflows are likely to be as follows:
1st year: Rs.64,000, 2nd year: Rs.56000; 3rd year: Rs. 24,000. Compute the internal rate of return.

b) Evaluate payback method.

7. What do you understand by Double Entry Book Keeping? What are its advantages?

8. Explain how ratios are used in the interpretation of financial statements and in financial analysis.

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Code No: RR-211701

II B.Tech I–Semester Regular Examinations, November-2004
MANAGERIAL ECONOMICS AND FINANCIAL ACCOUNTANCY
(Common to Electronics and Telematics, Electronics and Computer Engineering and Instrumentation and Control Engineering)

Time: 3 hours **Max. Marks: 80**

Answer any Five questions
All questions carry equal marks
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1. **Discuss the utility of demand forecasting. What are the criteria of a good forecasting method?**

2. **Explain the following with reference to production function,**
   a) **Marginal rate of Technical substitution.**
   b) **Variable proportions of factors**

3. **Sale of a product amounts to 200 units per month at Rs.10 per unit. Fixed Overheads is Rs.400 per month and variable cost is Rs.6 per unit. There is a proposal to reduce prices by 10%. Calculate present and future P V Ratio. How many units must be sold to earn a target profit of present level.**

4. **Compare and contrast between perfect competition and monopoly.**

5. **Discuss the factors affecting the choice of forms of business organisation.**

6. **What are the components of working capital? Explain each of them.**

7. **Explain the basic accounting concepts and convention. Give examples.**

8. **What are the ratios which assess the company's borrowing capacity? How do you calculate them? Illustrate**

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Code No: RR-211701

II B.Tech I–Semester Regular Examinations, November-2004
MANAGERIAL ECONOMICS AND FINANCIAL ACCOUNTANCY
(Common to Electronics and Telematics, Electronics and Computer Engineering and Instrumentation and Control Engineering)

Time: 3 hours   Max. Marks: 80

Answer any Five questions
All questions carry equal marks

1.a) Explain the various factors that influence the demand for a computer.
b) What is cross elasticity of Demand? Explain.

2.a) What are isocosts and isoquants? Do they intersect each other?
b) Explain Cobb-Douglas production function.

3. You are given the following information about two companies in 2000.

Particulars	Company A	Company B
Sales	Rs.50,00,000	Rs. 50,00,000
Fixed Expenses	Rs.12,00,000	Rs. 17,00,000
Variable Expenses	Rs.35,00,000	Rs. 30,00,000

A friend seeks your advice as to which company's shares he should purchase. Assuming the Capital invested is equal for the two companies, state the advice that you will give.

4. Compare between monopoly and perfect competition.

5. Evaluate the Government Company form of public enterprise.

6. What is accounting rate of return and Pay back period? Compare and contrast the two.

7. What is three columnar cash book? What is contra entry? Illustrate.

8. State the different types of liquidity ratios and turnover ratios and explain their significance.

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Code No: RR-211701

II B.Tech I–Semester Regular Examinations, November-2004

MANAGERIAL ECONOMICS AND FINANCIAL ACCOUNTANCY

(Common to Electronics and Telematics, Electronics and Computer Engineering and Instrumentation and Control Engineering)

Time: 3 hours Max. Marks: 80

Answer any Five questions

All questions carry equal marks

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1. Describe the various methods of measurement of price elasticity of demand.

2.a) Distinguish between returns to factors and returns to scale.

b) Explain laws of Returns.

3. Sales of Rs.1,10,000 producing a profit of Rs.4000 in period-I. Sales of Rs.1,50,000 producing a profit of Rs.12000 in period-II. Determine BEP and fixed Expenses.

4. What is Perfect Competition? How is Market Price determined under conditions of Perfect Competition?

5. Define and Evaluate Statutory corporation.

6. What are the merits and limitations of Pay Back period? How does Discounting approach overcome the limitations of Pay back method?

7. Generalise the following transactions and post them to ledger.
   - i. Ram invests Rs.10,000 in cash.
   - ii. He bought goods worth Rs. 2,000 from Shyam.
   - iii. iii. He bought a machine for Rs. 5,000 from Lakshman on account
   - iv. iv. He paid to Lakshman Rs. 2,000
   - v. v. He sold goods for cash Rs.3,000
   - vi. vi. He sold goods to A on account Rs. 4,000
   - vii. vii. He paid to Shyam Rs.1,000
   - viii. viii. He received amount from A Rs.2,000

8. As a financial analyst, what precautions would you take while interpreting ratios meaningfully?

III B.Tech. I-Semester Supplementary Examinations, November-2004

MANAGERIAL ECONOMICS & PRINCIPLES OF ACCOUNTANCY

(Common to Civil Engineering, Mechanical Engineering, Production Engineering, Chemical Engineering, Mechatronics, Metallurgy and Material Technology and Computer Science and System Engineering)

Time: 3 hours Max Marks: 80

Answer any FIVE Questions

All Questions carry equal marks

- -

1. **What are the contributions and limitations of economic analysis to business decision-making?**
2. **Discuss the utility of demand forecasting. What are the criteria of a good forecasting method?**
3. **Why does the Law of Diminishing Returns operate? Explain with the help of a diagram.**
4. **Write short notes on the following:**
   - a) **Profit-Volume Ration**
   - b) **Margin of Safety**
5. **The following are the details pertaining to a company, which is considering acquiring a fixed asset:**
   Project A: Cost of the proposal: Rs. 42,000, Life 5 years, Average annual cash inflow Rs.14, 000.
   Project B: Cost of the proposal Rs. 45,000, Life 5 years
   Annual cash inflows: 1st year 28000, 2nd year 12000, 3rd year 10,000 4th year 10,000 and 5th year Rs. 10,000. Determine IRR. Which projects do you recommend?
6. **Explain the role of time factor in the determinations of price. Also explain price output determination in case of perfect competition.**
7. **Define a Public Enterprise? Discuss the need for Public Enterprises in India.**
8. **Explain the concept of 'Liquidity' and narrate its importance through suitable examples with some assumed data.**

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Code No: NR-310106

II B.Tech. II-Semester Supplementary Examinations, November-2004

MANAGERIAL ECONOMICS & PRINCIPLES OF ACCOUNTANCY

(Common to Civil Engineering, Mechanical Engineering, Production Engineering, Chemical Engineering, Mechatronics, Metallurgy and Material Technology and Computer Science and System Engineering)

Time: 3 hours Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

- - -

1. What is managerial economics? Explain its focus areas?
2. What is meant by elasticity of demand? Explain giving a suitable illustration, how elasticity of demand determines the price policy of a firm.
3. Explain the following with reference to production function,
   a) Substitutability of factors
   b) Variable proportions of factors
4. Write short notes:
   a) Sunk costs
   b) Abandonment costs
5. What is Accounting rate of return and Pay back period? Compare and contrast the two.
6. What are the main features of Monopoly? How does it differ from Perfect Competition?
7. What do you understand by Joint Stock Company? What are its salient features?
8. Determine the required information:
   a) If the net income of an enterprise is Rs. l, 62,400.lts fixed interest charges on mortgage debentures amount to Rs.32480 and Income tax provision was Rs. l, 62,400. What is its Interest coverage ratio?
   b) When a business effects net sales of Rs.12, 69,000 and the cost of goods sold by it is Rs. 7, 11,000, what will be its Gross profit ratio?
   c) If the costs of goods sold as well as operating expenses are Rs. 7,11,000 and Rs. 4,52,000 respectively and the net sales amount to Rs. 12,69,000, what is its operating ratio?
   d) Opening stock and closing stock values are Rs. l, 75,000 and Rs.2, 25,000 respectively. Purchases and manufacturing expenses are Rs. 4,00,000 and Rs.6, 00,000 respectively. What is its Stock-Turnover ratio?

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Code No: NR-310106

III B.Tech. I-Semester Supplementary Examinations, November-2004

MANAGERIAL ECONOMICS&PRINCIPLES OF ACCOUNTANCY

(Common to Civil Engineering, Mechanical Engineering, Production Engineering, Chemical Engineering, Mechatronics, Metallurgy and Material Technology, and Computer Science and System Engineering)

Time: 3 hours Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

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1. “Managerial economics is the discipline which deals with the application of economic theory to business management”. Discuss.

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2. **What is meant by Elasticity of demand? What are the determinants of Elasticity and Inelasticity of demand for a product?**
3. **What do you mean by a firm's production function? Suppose the price of one input goes up. How does this affect the firms' production functions? With two inputs how does it affect the firm's choice of inputs?**
4. **The information about Raj & Co., are given below:**

   Profit-Volume Ratio 20%
   Fixed Cost Rs.36, 000
   Selling price per unit Rs.150

   Calculate:

   a) **BEP (in Rs.)**
   b) **BEP (in units)**
   c) **Variable Cost per unit**
   d) **Selling price per unit**
5. **A project involves initial outlay of Rs. 1,29,600. Its working life is expected to be 3 years. The cash inflows are likely to be as follows:**

   1st year: 64,000, 2nd year: Rs.56000, 3rd year: Rs. 24,000. Compute the Internal Rate of Return.
6. **What is Perfect Competition? How is Market Price determined under conditions of Perfect Competition?**
7. **What do you mean by Sole Proprietorship? Explain its merits and limitations**
8. **Write short notes on the following and give appropriate examples**

   a) **Current ratios and Quick ratios**
   b) **Debtor- Turnover ratio and Inventory turnover ratio**

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Code No: NR-310106

III B.Tech. I-Semester Supplementary Examinations, November-2004

MANAGERIAL ECONOMICS&PRINCIPLES OF ACCOUNTANCY

(Common to Civil Engineering, Mechanical Engineering, Production Engineering, Chemical Engineering, Mechatronics, Metallurgy and Material Technology, and Computer Science and System Engineering)

Time: 3 hours Max Marks: 80

Answer any FIVE Questions

All Questions carry equal marks

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1. Explain the various factors that influence the demand for a computer.
2. Explain the following methods of demand forecasting:
   a) Test marketing
   b) Controlled experiments
   c) Judgmental approach.
   d) Sales force-polling.
3. Explain the following:
   a) Internal Economics
   b) External Economics
4. Define Opportunity Cost. List out its assumptions and limitations.
5. A company is considering two investment opportunities (A and B) that cost Rs. 4, 00,000 and Rs. 3, 00,000 respectively. The first project generates Rs. 1,00,000 a year for four years. The second generates Rs. 60,000, Rs.1, 00,000, Rs.80, 000, Rs. 90,000 and Rs.70, 000 over a five year period. The company's cost of capital is 8%. Which project will you choose under NPV method?

6. Explain the following with the help of a table and diagram under perfect competition and monopoly:
   a) Total Revenue
   b) Marginal Revenue
   c) Average Revenue
7. Define partnership business and explain its salient features.

8. Who are the users of financial statements of a business unit and explain how differently they interpret the financial data?

II B.Tech I–Semester Supplementary Examinations, November-2004

MANAGERIAL ECONOMICS AND PRINCIPLES OF ACCOUNTANCY

(Common to Electronics and Communication Engineering, Computer Science and Engineering, Bio-Medical Engineering, Computer Science and Information Technology, Electronics and Telematics, Electronics and Computer Engineering)

Time: 3 hours Max. Marks: 80

Answer any Five questions

All questions carry equal marks

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1. 1. Discuss the nature and scope of Managerial economics.
2. Explain the concepts and kinds of elasticity of demand that are relevant to the manager of a firm.
3. Discuss in detail the different methods of production functions.

4.a) What is meant by Break-Even Analysis? Explain the uses and limitations of BEP.

b) Appraise the usefulness of Break-Even Analysis for a multi product organization..

5. What are the components of working capital? Explain each of them.

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6. Distinguish between perfect and imperfect markets.
7. What is the need for public enterprises? Explain the recent achievement of public Enterprises.
8.a) The cost of goods sold of a Company is Rs.5,00,000 The cost price of inventory at the beginning of the year and at the end of the year were Rs.40,000 and Rs.60,000 respectively. Determine Inventory-Turnover ratio.
b) With the given information determine Debtor-Turnover ratio:
Total sales: Rs.l ,00,000 among which cash sales were Rs.75,000
Sundry debtors: Rs.l 0,000 and Bills receivable:Rs.5,000.
c) Determine Average Collection period:
Total sales:Rs.l,00,000 out of which credit sales were Rs.80,000
Debts receivable at the end of the year:Rs.15,000
Bills receivable:Rs.5,000. Assume the no. of working days as 360.

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Code No: NR-210401

II B.Tech I–Semester Supplementary Examinations, November-2004

MANAGERIAL ECONOMICS AND PRINCIPLES OF ACCOUNTANCY

(Common to Electronics and Communication Engineering, Computer Science and Engineering, Bio-Medical Engineering, Computer Science and Information Technology, Electronics and Telematics, Electronics and Computer Engineering)

Time: 3 hours Max. Marks: 80

Answer any Five questions
All questions carry equal marks
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1. 1. Define Managerial economics and point out its chief characteristics. How is Macro – economics useful to Managerial economics?
2.a) What are the possible approaches to forecasting demand for new products?
b) Discuss the Utility of demand forecasting.
3. How will you define economies of scale? Explain the factor, which cause increasing returns to scale.
4. Describe the Break-Even Point with the help of diagram and its uses in business decision making.
5. What are the merits and limitations of Pay Back period? How does Discounting approach overcome the limitations of Pay back method?
6. Compare between monopoly and perfect competition.
7. Critically examine the objectives of Public Sector Enterprises.
8. The following are the summarized particulars of Profit & Loss accounts and Balance sheet of XL Ltd. For the year ending 31 st December 2000.

Profit & Loss Account

Opening stock	1,99,000	Sales	17,00,000
Purchases	10,90,500	Stock	2,98,000
Manufacturing Expenses	28,500	Other income	18,000
Operating expenses	3,90,000		
Other expenses	8,000		
Net profit	3,00,000		
	20,16,000		20,16,000

BALANCE SHEET

Liabilities	Amount	Assets	Amount
Share capital	**4,00,000**	**Fixed assets (net)**	**4,60,000**
Reserves & surplus	**1,80,000**	**Stock**	**2,98,000**
Current liabilities	**2,60,000**	**Debtors**	**1,42,000**
Mortgage loan	**1,20,000**	**Cash**	**60,000**
	9,60,000		**9,60,000**

Determine:

(a) Current ratio (b)Gross profit ratio (c) Operating ratio (d) Debt-Equity ratio

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Code No: NR-210401

II B.Tech I–Semester Supplementary Examinations, November-2004

MANAGERIAL ECONOMICS AND PRINCIPLES OF ACCOUNTANCY

1. Explain how Managerial Economics is related to Economics, Statistics, Mathematics and Accounting.
2. Describe the various methods of measurement of price elasticity of demand.
3. a) What is meant by internal and external economies of scale?
   b) What are the sources of internal and external economies?
   c) Discuss various types of internal economies available to a firm.
4. How do you determine BEP in terms of physical units and sales value? Explain the concepts of margin of safety and the angle of incidence.
5. What is Accounting rate of return and Pay back period? Compare and contrast the two.
6. What is Perfect Competition? How is Market Price determined under conditions of Perfect Competition?
7. Discuss the factors that help in choosing a suitable form of Business Organisation.
8. The following is the financial information of 3 business units. Determine Current ratio and Quick ratio. Comment on their liquidity position and rank them.

Liabilities	X Rs.	Y Rs.	Z Rs.
Capital	56,000	56,000	56,000
Profit balance	10,000	13,000	15,000
Bills payable	25,000	30,000	50,000
Sundry creditors	11,000	26,000	39,000
	1,02,000	1,25,000	1,60,000
Assets			
Debtors	30,000	50,000	60,000
Stock	50,000	50,000	70,000
Plant and Machinery	12,000	15,000	20,000
Furniture	10,000	10,000	10,000
	1,02,000	1,25,000	1,60,000

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II B.Tech I–Semester Supplementary Examinations, November-2004

MANAGERIAL ECONOMICS AND PRINCIPLES OF ACCOUNTANCY

(Common to Electronics and Communication Engineering, Computer Science and Engineering, Bio-Medical Engineering, Computer Science and Information Technology, Electronics and Telematics, Electronics and Computer Engineering)

Time: 3 hours **Max. Marks: 80**

Answer any Five questions
All questions carry equal marks
---

1. 1. Describe the utility of economic methods and decision-making.

2. 2. What are the factors that are considered while estimating a firm's sales? Enumerate the special difficulties in forecasting sales of consumers' durables.

3.a) What is meant by production? Define production function and describe the underlying assumption.
b) Explain the importance and uses of production function in Managerial Economics.

4. If sales is 10,000 units and selling price is Rs.20 per unit, variable cost Rs.10 per unit and fixed cost is Rs.80,000 find out BEP in units and in sales revenue. What is profit earned? What should be the sales for earning a profit of Rs.60,000?

5. A project involves initial outlay of Rs. 1,29,600. Its working life is expected to be 3 years. The cash inflows are likely to be as follows:
1st year: 64,000, 2nd year: Rs.56000, 3rd year : Rs. 24,000. Compute the Internal Rate of Return.

6. "Perfect Competition results in larger output with lower price than a Monopoly", Discuss.

7. Define Partnership and discuss the merits and limitations of Partnership.

Contd…2

8. The summarized balance sheet and Income particulars of Vijetha Electronics for, the year 2001 are given below (Fig. in lakhs of Rupees)

Liabilities and Equity		Assets	
Equity capital	100	Cash and Bank balances	50
Reserves &Surplus	225	Fixed Assets (Net)	300

8. Long term debt 125 | Receivables 150
Short term loans 150 | Inventories 200
Trade creditors 100 | Prepaid Expenses 25
Provisions 50 | Others 25

Long term debt	125	Receivables	150
Short term loans	150	Inventories	200
Trade creditors	100	Prepaid Expenses	25
Provisions	50	Others	25
	750		750
Net sales	950	Cost of goods sold	720
Operating expenses	105	Non operating surplus	26
Interest	50	Taxes	50
Dividends	18	Retained earnings	33

Compute
a) Gross Profit Margin Ratio b) EBIT
c) Current Ratio. d) Return on Investment.

II B.Tech. II-Semester Supplementary Examinations, Nov/Dec-2004

MANAGERIAL ECONOMICS AND PRINCIPLES OF ACCOUNTANCY
(Common to Electrical and Electronics Engineering, Electrical and Instrumentation Engineering and Electronics and Control Engineering)

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks
\- - -

1. What is meant by Demand Schedule, Demand curve and demand function? How is market demand calculated from individual demands?

2. What is promotional elasticity of demand? How does it differ from cross elasticity of demand?

3. Distinguish between production and cost function? How would you develop the production function? What are its uses?

4. Write short notes on the following:
   a) Explicit costs
   b) Implicit costs

5. A firm has many projects. It wants to earn at least 6 percent per annum on this project with the following cash flows. Do you recommend?

Year end	0	1	2	3	4	5	6
Cash inflow (Rs.)		10,000	30,000	40,000	40,000	40,000	50,000
Cash outflow(Rs.)		1,00,000					

6. Define Monopoly. How is price under Monopoly determined?

7. Explain the basic features of different forms of Public Enterprises.

8. What are financial statements? Why are they needed? How are they prepared?

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II B. Tech II-Semester Supplementary Examinations, Nov/Dec-2004
MANAGERIAL ECONOMICS AND FINANCIAL ANALYSIS
(Common to Electrical and Electronics Engineering, Electronics and Instrumentation Engineering, Electronics and Control Engineering, Electronics and Communication Engineering, Computer Science and Engineering, Mechatronics, Bio Medical Engineering, Computer Science and Systems Engineering and Information Technology)

Time: 3 hours Max. Marks: 80

Answer Any FIVE questions
All questions carry equal marks
---

1. What is promotional elasticity of demand? How does it differ from cross elasticity of demand?

2. Explain and illustrate the following:
a) The Law of Constant Returns.
b) The Law of increasing Returns.

3.a) Explain the utility of Break-Even Analysis in managerial decision-making.
b) How do you explain breakeven chart? Explain.

4.a) Distinguish between perfect and imperfect markets.
b) What are the different market situations in imperfect competition?

5. What are the factors governing choice of form of business organization?

6. The proposals in respect of the following two projects are to be examined using (a) pay back method (b) Accounting rate of return method
Initial investment for both projects = Rs. 20000
Estimated cash flows: after Tax are as follows:

Year	Proposal 1 Rs.	Proposal 2 Rs.
1	12,500	11,750
2	12,500	12,250
3	12,500	12,500
4	12,500	13,500

7. From the following Trail Balance and adjustments of Suresh, prepare Trading and Profit and Loss Account for the year ending 30th June , 2002 and a Balance sheet as on that date.

	Debit Rs.	Credit Rs.
Suresh's Drawings	14,000	
Furniture	5,200	
Land and buildings	40,000	
Opening stock	44,000	
Debtors	37,200	
Purchases	2,20,000	
Sales returns	4,000	
Discounts	3,200	
Taxes and insurance	4,000	
General expenses	8,000	
Salaries	18,000	

Commission	4,400	
Carriage	3,600	
Bad debts	1,600	
Suresh capital accounts		60,000
Bank overdraft		8,400
Creditors		31,600
Rent from tenants		2,000
Sales		3,00,000
Discounts		4,000
Provision for doubtful debts		1,200
Total:	4,07,200	4,07,200

Adjust the following: a) closing stock Rs.70,000 b) write off depreciation Rs.10% per annum on land and buildings c) taxes yet to be paid Rs.200.

8. >Two companies ABC Limited and XYZ Limited have approached ICICI Bank for a loan sanction of Rs.50,000 for working capital purpose.

	ABC LIMITED(Rs.)	XYZ LIMITED(Rs.)
Net sales	9,10,000	7,50,000
Gross profit	3,82,200	2,92,500
Interest paid	20,000	8,200
Income Tax	75,000	50,000
Profit after Tax	82,000	56,250
Inventories	90,000	65,200
Debtors	70,000	56,000
Cash	6,000	18,000
Current liabilities	1,82,000	1,16,000
Long term liability	1,60,000	1,30,000
Shareholders equity	1,80,000	1,40,000

Note that bank wants to sanction loan only to one applicant whom do you recommend and why.

^*^*^

Code No: RR-220201

II B. Tech II-Semester Supplementary Examinations, Nov/Dec-2004

MANAGERIAL ECONOMICS AND FINANCIAL ANALYSIS

(Common to Electrical and Electronics Engineering, Electronics and Instrumentation Engineering, Electronics and Control Engineering, Electronics and Communication Engineering, Computer Science and Engineering,

GCET

Mechatronics, Bio Medical Engineering, Computer Science and Systems Engineering and Information Technology)

Time: 3 hours **Max. Marks: 80**

Answer Any FIVE questions

All questions carry equal marks

---

1. **Describe the various methods of measurement of price elasticity of demand**

2. **Why does the Law of Diminishing Returns operate? Explain with the help of a diagram.**

3. **3. Write short notes on:**
   a) Fixed cost and Variable cost.
   b) Out of pocket costs and Imputed costs.

4. **Illustrate the price determination under monopoly.**

5. **Explain the merits of partnership.**

6. **A company has at hand two proposals for consideration (M and N). The cost of the proposals in both the cases is Rs. 5,00,000 each. A discount factor of 12 % may be used to evaluate the proposals. Cash inflows after taxes are as under.**

Year	Proposal M Rs.	Proposal N Rs.
1	1,50,000	50,000
2	2,00,000	1,50,000
3	2,50,000	2,00,000
4	1,50,000	3,00,000
5	1,00,000	2,00,000

Which one will you recommend under Present Value method?

7. **In the books of Kishore, prepare Trading and profit and loss account for the year ended 30th June, 2003:**

	Rs.
Stock (1.7.2002)	1,06,000
Purchases	3,00,000
Wages	2,50,000
Office salaries	60,000
Discount on sales	20,000
Carriage inwards	20,000
Carriage outwards	60,000
Stationery	3,000
Rent (¾ to Factory)	48,000
Postage	3,500
Transport and conveyance	25,000
General charges	3,500
Commission	26,000
Power	55,000
Rebate on purchases	10,000
Sales	10,00,000

8. **The summarized balance sheet of Alpha Ltd., as on 31st March 2000, 2001 and 2002 are given below:**

As on March 31st

2000 2001 2002
(Rs.in lakhs)

CET

Liabilities:

Paid up capital 194 194 194

Borrowing long term
i.bonds 68 97 124
ii.others 281 343 379
Current liabilities 52 54 99
----- -------- --------
595 688 796
----- -------- -------

Assets:
Gross Block 355 356 361
Less depreciation 69 95 122
----- ------ -----
Net Block 286 261 239
Current Assets 143 199 234
Profit and Loss account 166 228 323
----- ----- -----
Total 595 688 796

From the above compute the following as on 31st Mar 2000 and 2002:
a) Debt to Equity Ratio b) Current Ratio c) Net worth Ratio and comment on the results.

^*^*^

Code No: RR-220201

II B. Tech II-Semester Supplementary Examinations, Nov/Dec-2004
MANAGERIAL ECONOMICS AND FINANCIAL ANALYSIS
(Common to Electrical and Electronics Engineering, Electronics and Instrumentation Engineering, Electronics and Control Engineering, Electronics and Communication Engineering, Computer Science and Engineering, Mechatronics, Bio Medical Engineering, Computer Science and Systems Engineering and Information Technology)

Time: 3 hours **Max. Marks: 80**

Answer Any FIVE questions
All questions carry equal marks

1.a) What are the possible approaches to forecasting demand for new products?
b) Discuss the utility of demand forecasting.
2. Define production function. Explain how is it helpful for a producer.
3. Write short notes on the following:
a) a) Explicit cost b) Short run cost
c) Imputed costs d) Variable cost
4. Explain the role of time factor in the determinations of price. Also explain price output determination in case of perfect competition.
5. Explain the merits and demerits of sole trader type of business organization.
6. Given that a project yields the following cash inflows for six years at an original cost of Rs.50,000, determine IRR.

Year	Cash inflows after taxes Rs.
1	10,000
2	16,000
3	24,000
4	30,000
5	30,000

6	30,000

7. **Prepare Trading and profit and loss account for the year ended 31.12.2001 and a Balance Sheet as on that date from the following Trail Balance.**

	Dr. Rs.	Cr. Rs.
Furniture	6,500	
Plant and Machinery	60,000	
Buildings	75,000	
Capital		1,25,000
Bad debts	1,750	
Reserve for bad debts		3,000
Sundry debtors	40,000	
Sundry creditors		24,000
Stock (1.1.2001)	34,600	
Purchases	54,750	
Sales		1,54,500
Bank overdraft		28,500
Sales returns	2,000	
Purchase returns		1,250
Advertising	4,500	
Interest	1,180	
Commission received		3,750
Cash in hand	6,500	
Salaries	33,000	
General expenses	7,820	
Car expenses	9,000	
Taxes and insurance	3,500	
	3,40,000	3,40,000

8. **The following are the extracts from the financial statements of Blue and Red Ltd., as on 31st March 2001 and 2002 respectively**

31 March 2001 31 March 2002
Rs. Rs.
Stock 10,000 25,000
Debtors 20,000 20,000
Bills receivables 10,000 5,000
Cash in hand 18,000 15,000
Bills payable 15,000 20,000
Bank overdraft --- 2,000
9% debentures 5,00,000 5,00,000
Sales for the year 3,50,000 3,00,000
Gross profit 70,000 50,000

Compute for both the years the following:
a) Current ratio b) Liquidity ratio c) Stock turnover ratio. Also interpret the results

^*^*^

Code No: RR-220201

II B. Tech II-Semester Supplementary Examinations, Nov/Dec-2004

MANAGERIAL ECONOMICS AND FINANCIAL ANALYSIS

(Common to Electrical and Electronics Engineering, Electronics and Instrumentation Engineering, Electronics and Control Engineering, Electronics and Communication Engineering, Computer Science and Engineering, Mechatronics, Bio Medical Engineering, Computer Science and Systems Engineering and Information Technology)

Time: 3 hours Max. Marks: 80

Answer Any FIVE questions

All questions carry equal marks

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1. What is meant by Elasticity of demand? What are the determinants of Elasticity and Inelasticity of demand for a product?
2. Explain the following with reference to production function.
a) Marginal rate of Technical substation.
b) Variable proportions of factors.
3. Write short notes on the following:
   a) Profit-Volume Ratio (P/V ratio).
   b) b) Margin of Safety.
   c) c) Angle of incidence.

4. How an individual firm behaves under perfect competition? Also explain the firm and industry equilibrium under perfect competition.
5. Write a short notes on:
   a) Public Company b) Government company c) Private Company.
6. A firm has many projects. It wants to earn at least 6 percent per annum on this project with the following cash flows. Do you recommend as per net present value method.

Year end	0	1	2	3	4	5	6
Cash inflow (Rs.)		10,000	30,000	40,000	40,000	40,000	50,000
Cash outflow(Rs.)	1,00,000						

7. The following figures have been extracted from the records of Fancy Stores a proprietary concern as on 31-12-2003:

Furniture	15,000	Insurance	6,000
Proprietors capital a/c	54,000	Rent	22,000
Cash in hand	3,000	Sundry debtors	60,000
Opening stock	50,000	Sales	6,00,000
Fixed deposit	1,34,600	Advertisement	10,000
Drawings	5,000	Postages and Telephone	3,400
Provision for bad debts	3,000	Bad debts	2,000
Cash at bank	10,000	Printing and stationery	9,000
Purchases	3,00,000	General charges	13,000
Salaries	19,000	Sundry creditors	40,000
Carriage inwards	41,000	Deposit from Customers	6,000

Prepare Trading, Profit and loss account and balance sheet after taking into consideration the following information.

a) a) Closing stock as on 31st March was Rs.10,000.

b) b) Salary of Rs. 2,000 is yet to paid to an employee.

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8. Selected financial information about Siri Traders Limited is given below:

	2001	2002
Sales	6,00,000	4,30,000
Cost of goods sold	5,70,000	3,25,000
Debtors	72,000	30,000
Inventories	1,14,000	55,000
Cash	15,000	8,000
Other current assets	40,000	27,000
Current liabilities	1,60,000	1,10,000

Compute the current ratio, quick ratio, debt collection period and inventory turnover ratios for the above two years and comment on the results

17. QUESTION BANK

Questions Unit-1

1. What is managerial economics?

2. Point out the importance of managerial economics in decision making

3. What are the contributions and limitations of economic analysis in business decision making

4. Managerial Economics is the discipline which deals with the applications of economic theory to business management discuss.

5. Explain the fundamental concepts of managerial economics

6. Discuss the nature & Scope of Managerial economics

7. Managerial Economics is the study of allocation of resources available to a firm or other unit of management among the activities of that unit explains.

8. Explain the nature of problems studies in managerial economics. What is the importance of the study of such problems in business management?

9. Explain the role and responsibilities of a managerial economics?

10.“Managerial Economics is an integration of economic theory and with business practice for the purpose of facilitating decision making and forward planning”

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explain.

Questions Unit-2

QUESTIONS

1. What is meant by elasticity of demand? How do you measure it? What are determinates of elasticity of demand?

2. What is the utility of demand forecasting? What are the criteria for a good forecasting method? Forecasting of demand for a new product? ‘ Economic indicators’

3. What is promotional elasticity of demand? How does if differ from cross elasticity of demand.

4. Explain in law of demand. What do you mean by shifts in demand curve?

5. What is cross elasticity of demand? Is it positive for substitute or complements? Show in a diagram relating to the demand for coffee to the price of tea?

6. Income elasticity of demand and distinguish its, various tapes. How does it differ from pure elasticity of demand?

7. What is meant by demand? Everyone desires a Maruti 800 Car – Does this mean that the demand for Maruti Car is large?

8. Calculate price elasticity of demand:

$Q1= 4000$ $P1= 20$

$Q2= 5000$ $P2= 19$

9. What is demand analysis? Explain the factor influencing the demand for a product?

10. What are the various factors that influence the demand for a computer.

Questions Unit-3

QUESTIONS

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1. Why does the law of diminishing returns operate? Explain with the help of a diagram.

2. Explain the nature and uses of production function.

3. Explain and illustrate lows of returns to scale.

4. a. Explain how production function can be mode use of to reduce cost of

b. Explain low of constant returns? Illustrate.

5. Explain the following (i) Internal Economics (ii) External Economics (or) Explain Economics of scale. Explain the factor, which causes increasing returns to scale.

6. Explain the following with reference to production functions

Production.

(a) MRTS

(b) Variable proportion of factor

7. Define production function, explain is equate and is cost curves.

8. Explain the importance and uses of production function in break-even analysis.

9. Discuss the equilibrium of a firm with isoquants.

10.(a) What are isocost curves and iso quants? Do they interest each other

(b) Explain Cobb-Douglas Production function.

11. What cost concepts are mainly used for management decision making? Illustrate.

12. The PV ratio of matrix books Ltd Rs. 40% and the margin of safety Rs. 30. You are required to work out the BEP and Net Profit. If the sales volume is Rs. 14000/-

13. A Company reported the following results for two period

Period Sales Profit

I Rs. 20,00,000 Rs. 2,00,000

II Rs. 25,00,000 Rs. 3,00,000

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Ascertain the BEP, PV ratio, fixes cost and Margin of Safety.

14. Write short notes on the following

a) Profit – Volume ratio

b) Margin of Safety

QUESTIONS UNIT-3

16. The information about Raj & Co are given below:

PV ratio : 20%

Fixed Cost : Rs. 36,000/-

Selling Price Per Unit: Rs. 150/-

Calculate (i) BEP in rupees (ii) BEP in Units

(iii) Variable cost per unit

(iv) Contribution per unit

17. Define opportunity cost. List out its assumptions & Limitation.

18. (a) Explain the utility of BEA in managerial decision making

(b) How do you explain break even chart? Explain.

19 . Describe the BEP with the help of a diagram and its uses in business decision making.

20 . If sales in 10000 units and selling price Rs. 20/- per unit. Variable cost is Rs. 10/- per unit and fixed cost is Rs. 80000. Find out BEP in Units and sales revenue what is profit earned? What should be the sales for earning a profit of Rs. 60000/-

21. How do you determine BEP in terms of physical units and sales value? Explain the concepts of margin of safety & angle of incidence.

22. Sales are 1,10,000 producing a profit of Rs. 4000/- in period I, sales are 150000 producing a profit of Rs. 12000/- in period II. Determine BEP & fixed expenses.

23. When a Mc change does Ac changed (a) at the same rate (b) at a higher rate or (c) at a lower rate? Illustrate your answer with a diagram.

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24. Sale of a product amounts to 20 units per months at Rs. 10/- per unit. Fixed overheads is Rs. 400/- per month and variable cost is Rs. 6/- per unit. There is a proposal to reduce prices by 107. Calculate present and future P-V ratio. How many units must be sold to earn a target profit of present level?

Questions Unit-4

QUESTIONS

1. Explain how a firm attains equilibrium in the short run and in the long run under conditions of perfect competition.

2. Explain the following with the help of the table and diagram under perfect competition and monopoly

(a) Total Revenue

(b) Marginal Revenue

(c) Average Revenue

3. Define monopoly. How is price under monopoly determined?

4. Explain the role of time factor in the determination of price. Also explain price-O/P determination in case of perfect competition.

5. (a) Distinguish between perfect & imperfect markets (b) What are the different market situations in imperfect competition.

6. "Perfect competition results in larger O/P with lower price than a monopoly" Discuss.

7. Compare between monopoly and perfect competition.

8. What is price discrimination? Explain essential conditions for price discrimination.

9. Explain the following (a) Monopoly (B) Duopoly (c) Oligopoly (d) imperfect competition.

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10.What is a market? Explain, in brief, the different market structures.

11.Monopoly is disappearing from markets. Do you agree with this statement? Do you advocate for monopoly to continue in market situations.

Questions Unit-5

QUESTIONS

1. Define a joint stock company & explain its basic features, advantages & disadvantages

2. Write short notes pm (a) Sole trader (b) Stationery corporation.

3. Explain in basic features of Government Company from of public enterprise.

4. What do you mean by sole proprietorship? Explain its meant and limitations.

5. Define partnership from of business. Explain its salient features.

6. What are the factors governing choice of form of business organization.

7. Write short notes on (a) public company (b) Government Company (c) Private Company

8. What is the need of public enterprises? Explain the recent achievement of public enterprises

9. What is a partnership deed? Discuss the main contents partnership deed.

10.Write short note on (a) Departmental undertaking (b) articles of association

11.'Small is beautiful'. Do you think, this is the reason for the survival of the sole trader from of business organization? Support your answer with suitable examples.

Questions Unit-6

QUESTIONS

1. What do you understand by working capital cycle and what is its importance.?

2. Describe the institutions providing long-term finance.?

3. What do you understand by NPV method of appeasing long-term investment

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proposal? Explain with the help of a proposal of your choice.?

4. What is ARR and Payback period? Compare and count ran-the two methods. ?

5. What are the components of working capital? Explain each of them/ explain the factors affecting the requirements of working capital.?

6. What are the merits & limitations of Pay back period? How does discounting approach overcome the limitation of payback period?

7. Give various examples of capital budgeting decisions classify them into specific kinds. ?

8. What is the importance of capital budgeting? Explain the basic steps involved in evaluating capital budgeting proposals.?

9. What is NPV & IRR Compare and contrast the two methods of evaluating capital budgeting proposals.?

10.What are major sources of short-term finance?

Prepared by BPS Jyothi, Jyothi Kalyan, k. Naupal Reddy, P. Upender

11.What is meant by discounting and time value of money? How is it useful in capital budgeting?

12. Calculate the Net present value (NPV) of the two projects X and Y. Suggest which of the two projects should be accepted assuming a discount rate of 10%

Item Project-A Project-B

Initial Investment Rs. 80,000 Rs.

Life Period 5 Years 5 Years

(Annual Cash Inflows) (CFAT) (CFAT)

Year: 1 Rs.24,000 Rs.70,000

,, 2 Rs.36,000 Rs.50,000

,, 3 Rs.14,000 Rs.24,000

,, 4 Rs.10,000 Rs.8,000

,, 5 Rs.8,000 Rs.8,000

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1,20,000

UNIT-VII

1 . Journalize the following transactions .

1. He bought goods worth Rs. 2000 from shyam.

2. He bought a machine for Rs. 5000 from Lakshman on account.

3. He paid to Lakshman Rs. 2000

4. He sold goods for cash Rs.3000

5. He sold goods to A on account Rs. 4000

6. He paid to Shyam Rs. 1000

7. He received amount from A Rs. 2000

2. Journalize the following transactions and post them into Ledgers

Jan 1. Commenced business with a capital of Rs. 10000

„ 2. Bought Furniture for cash Rs. 3000

„ 3. Bought goods for cash from 'B' Rs. 500

„ 4. Sold goods for cash to A Rs. 1000

„ 5. Purchased goods from C on credit Rs.2000

„ 6. Goods sold to D on credit Rs. 1500

„ 8. Bought machinery for Rs. 3000 paying Cash

„ 12. Paid trade expenses Rs. 50

„ 18. Paid for Advertising to Apple Advertising Ltd. Rs. 1000

1. „ 19. Cash deposited into bank Rs. 500

3. What do you understand by Double Entry Book Keeping? What are its advantages?

4. (a) Define the concepts 'Accounting', Financial Accounting and Accounting System'.

(b) Explain the main objectives of Accounting and its important functions.

5. From the following list of balances prepare a Trial Balance as on 30-6-2003 and final accounts .

Rs. Rs.

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I Opening Stock 1800 Xiii Plant 750

Ii Wages 1000 Xiv Machinery tools 180

Iii Sales 12000 Xv Lighting 230

Iv Bank loan 440 Xvi Creditors 800

V Coal coke 300 Xvii Capital 4000

Vi Purchases 7500 xviii Misc. receipts 60

Vii Repairs 200 Xix Office salaries 250

Viii Carriage 150 Xx Office furniture 60

Ix Income tax 150 Xxi Patents 100

X Debtors 2000 Xxii Goodwill 1500

Xi Leasehold premises 600 xxiii Cash at bank 510

Xii Cash in hand 20

Closing stock 1000

Questions Unit-8

2. A firm has current assets for Rs 1,25,000 including an inventory for Rs 63,000. The current liabilities, on the other hand, amount to Rs 68,000. Find out the current ratio and the quick ratio, with a given industry norm of 2/1 and 1/1 respectively.

Solution

a. Current ratio = current assets/current liabilities

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= Rs 1,25,000/68,000 = 1.84/1

b. Quick ratio = (current assets - inventory)/current liabilities

= (1,25,000 - 63,000)/68,000 = 0.91/1

Both these ratios are below the industry norm indicating liquidity lower than desired.

3. A firm has equity and debt in its capital structure amounting to Rs 2,00,000 and Rs 3,00,000 respectively. The sale amounts to Rs 8,00,000. The cost of material and

the operating cost amount to Rs 5,60,000. Find (a) profit margin, and (b) return on investment.

Solution

Operating profit = Rs 8,00,000 - 5,60,000 = Rs 2,40,000

Asset = Debt + equity

= Rs 2,00,000 + 3,00,000 = Rs 5,00,000

a. Profit margin = Operating profit/sales

b. Return on investment = (operating profit/sales) × (sales/assets)

= Rs 2,40,000/8,00,000 = 0.30 or 30%

= (2,40,000/8,00,000) × (8,00,000/5,00,000) = 0.48 = 48%

4. Discuss the importance of Ratio Analysis for inter firm and intra-firm comparison, including circumstances responsible for its limitations, if any.?

5. What are the limitations of Ratio Analysis? Does ratio analysis really measure the financial performance of a company?

6. Write a brief note on the importance of ratio analysis to different category of users.

18. Assignment Questions Unit-1

Week-I

1. **Definition of Managerial Economics?**
2. **Nature & Characteristics of Managerial Economics?**
3. **Scope & Functions of Managerial Economics?**
4. **Fundamental Concepts of Managerial Economics?**

Week-II

5. **Major Role & Responsibilities of Managerial Economist?**
6. **Explain Consumer Equilibrium, along with its uses & limitations?**
7. **Concept & Law of Demand, explain with the help of schedule & graph?**
8. **What are the assumptions, uses & limitations of demand curve?**
9. **Properties & Factors influencing demand curve?**
10. **Different distinctions of demand?**

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Text Books:
AR Aryasri
Varshney & Maheswari
Brigham & Pappas
Gupta, Paul & Mote

Issue Date:	**10-07-2013**
Duration:	**1 Week**
Last Date:	**17-07-2013**
Mode:	**Separate Long Note Book(Not in Loose Sheets)**

Week-III

1. **Define Elasticity & Explain Price, Income Cross & Promotional Elasticities?**
2. **What are the different methods of measuring elasticity?**
3. **What is demand forecasting, what are its objectives, types, uses & Limitations?**
4. **What are the different methods of demand forecasting?**
5. **Differentiate new & old product demand forecasting?**

Week-IV

6. **Determine different types of price elasticities?**

Variable	Case-1	Case-2	Case-3	Case-4	Case-5
P_1(Rs.)	10	10	10	10	10
P_2(Rs.)	12	11	11	14	10
Q_1(Nos)	100	100	100	100	100
Q_2(Nos)	70	105	90	100	120

7. **Determine different types of Income elasticities?**

Variable	Case-1	Case-2	Case-3
I_1(Rs.)	1000	1000	1000
I_2(Rs.)	1500	1100	2000
Q_1(Nos)	100	100	100
Q_2(Nos)	80	120	100

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8. Determine different types of Advertisement elasticities?

Variable	Case-1	Case-2	Case-3
A_1(Rs.)	100000	150000	200000
A_2(Rs.)	150000	175000	250000
Q_1(Nos)	10000	10000	10000
Q_2(Nos)	8000	12000	10000

9. Fit linear trend equation y=a+bx for the following information for the two firms

Firm-X		Firm-Y	
Year	Sales(Rs. Lakhs)	Year	Sales(Rs. Lakhs)
2001	25	2001	25
2003	30	2004	30
2007	40	2008	40
2009	35	2011	35
2012	50	2012	50

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Week-V

9. What cost concepts are mainly used for management decision making? Illustrate.

10. The PV ratio of matrix books Ltd Rs. 40% and the margin of safety Rs. 30. You are required to work out the BEP and Net Profit. If the sales volume is Rs. 14000/-

11. A Company reported the following results for two period

Period	Sales	Profit
I	Rs. 20,00,000	Rs. 2,00,000
II	Rs. 25,00,000	Rs. 3,00,000

Ascertain the BEP, PV ratio, fixes cost and Margin of Safety.

12. Write short notes on the following
    a) Profit – Volume ratio
    b) Margin of Safety

13. Write short notes on: (i) Suck costs (ii) Abandonment costs

14. The information about Raj & Co are given below:

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PV ratio : 20%
Fixed Cost : Rs. 36,000/-
Selling Price Per Unit: Rs. 150/-
Calculate (i) BEP in rupees (ii) BEP in Units
(iii) Variable cost per unit
(iv) Contribution per unit

Week-VI

15.Define opportunity cost. List out its assumptions & Limitation.

16.(a) Explain the utility of BEA in managerial decision making
(b) How do you explain break even chart? Explain.

9. Write short motes on:
(i) Fixed cost & variable cost
(ii) Out of pocket costs & imputed costs
(iii) Explicit & implicit Costs
(iv) Short rum cost

10. Write short note on the following:
(d) PV ratio
(e) Margin of Safety
(f) Angle of incidence
(g)
11. Explain Cost/Output relationship in the short run.

Week-VII

12.Explain how a firm attains equilibrium in the short run and in the long run under conditions of perfect competition.
13.Explain the following with the help of the table and diagram under perfect competition and monopoly
(h) Total Revenue
(i) Marginal Revenue
(j) Average Revenue
14.Define monopoly. How is price under monopoly determined?
15.Explain the role of time factor in the determination of price. Also explain price-O/P determination in case of perfect competition.
16.(a) Distinguish between perfect & imperfect markets (b) What are the different market situations in imperfect competition.

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Week-VIII

17.“Perfect competition results in larger O/P with lower price than a monopoly” Discuss.
18.Compare between monopoly and perfect competition.
19.What is price discrimination? Explain essential conditions for price discrimination.
20.Explain the following (a) Monopoly (B) Duopoly (c) Oligopoly (d) imperfect competition.
21.What is a market? Explain, in brief, the different market structures.
22.Monopoly is disappearing from markets. Do you agree with this statement? Do you advocate for monopoly to continue in market situations.

Week-IX

12.Define a joint stock company & explain its basic features, advantages & disadvantages
13.Write short notes pm (a) Sole trader (b) Stationery corporation.
14.Explain in basic features of Government Company from of public enterprise.
15.What do you mean by sole proprietorship? Explain its meant and limitations.
16.Define partnership from of business. Explain its salient features.
17.What are the factors governing choice of form of business organization.

Week-X

18.Write short notes on (a) public company (b) Government Company (c) Private Company
19.What is the need of public enterprises? Explain the recent achievement of public enterprises
20.What is a partnership deed? Discuss the main contents partnership deed.
21.Write short note on (a) Departmental undertaking (b) articles of association
‘Small is beautiful’. Do you think, this is the reason for the survival of the sole trader form of business organization? Support your answer with suitable examples.

Week-XI

12.What do you understand by working capital cycle and what is its importance.
13.Describe the institutions providing long-term finance.

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14. What do you understand by NPV method of appeasing long-term investment proposal? Explain with the help of a proposal of your choice.
15. What is ARR and Payback period? Compare and count ran-the two methods.
16. What are the components of working capital? Explain each of them/ explain the factors affecting the requirements of working capital.

WEEK-XII

17. What are the merits & limitations of Pay back period? How does discounting approach overcome the limitation of payback period?
18. Give various examples of capital budgeting decisions classify them into specific kinds.
19. What is the importance of capital budgeting? Explain the basic steps involved in evaluating capital budgeting proposals.
20. What is NPV & IRR Compare and contrast the two methods of evaluating capital budgeting proposals.
21. What are major sources of short-term finance?

What is meant by discounting and time value of money? How is it useful in capital budgeting?

Week-XIII

1. Explain various accounting concepts in detail with suitable examples.
2. a) What is Trial Balance? Why it is prepared?
   b) From the following list of balances prepare a Trial Balance as on 30-6-2003

		Rs.			Rs.
i.	Opening stock	1,800	xiii.	Plant	750
ii.	Wages	1,000	xiv.	Machine Tools	180
iii.	sales	12,000	xv.	Lighting	230
iv.	bank loan	440	xvi.	Creditors	800
v	coal and coke	300	xvii.	Capital	4,000
vi	purchases	7,500	xviii.	Misc.receipts	60
vii.	repairs	200	xix.	Office salaries	250
viii.	carriage	150	xx	Office furniture	60
ix.	income tax	150	xxi	Patents	100
x	debtors	2,000	xxii.	Goodwill	1,500
xi	leasehold premises	600	xxiii.	Cash at bank	510
xii.	Cash in hand	2000			

WEEK-XIV

1. Explain and illustrate the types and significance of
   a)Profitability ratios b) Operating Ratio.
2. Explain and illustrate the types and significance of
   a)Leverage ratios b) Turnover ratios.
3. Calculate (a) Net Sales to Fixed Assets (b) Net Sales to Inventory (c) Net Profit Ratios given the following and explain their significance in decision making.

Rs.

Net Sales 10,00,000
Fixed Assets 8,00,000
= Inventory 2,20,000
Net profit after taxes 69,840

WEEK-XV

1. Explain how ratios are used in the interpretation of financial statements and in financial analysis.
2. What are the ratios which assess the company's borrowing capacity? How do you calculate them? Illustrate.
3. As a financial analyst, what precautions would you take while interpreting ratios meaningfully?

19. Unit vise Objective Questions.

UNIT-1

INTRODUCTION TO MANAGERIAL ECONOMICS & DEMAND ANALYSIS

1. The statement that contains the word 'ought to' is called
   (a) Prescriptive (b) normative (c) assertive (d) negative
2. The pre-requisite for rational decision making is
   (a) Logical analysis of one's choices without error
   (b) Consistency between goals and choices
   (c) Rigidly defined choices
   (d) Choices not involving any trade-offs
3. Which of the following indicates micro approach from national perspective?
   (a) Lock out in a factory (b) per capita income of the country
   (c) total investments in India (d) total employment in the country
4. What is the position of budget line with respect to indifference curve?
   (a) below (b) above (c) tangential (d) intersecting
5. Which of the following goods is an example of substitutes?
   (a) tea and sugar (b) tea and coffee (c) shirt and pant (d) car and petrol
6. Which of the following has highest consumer surplus?
   (a) necessities (b) luxury goods (c) comforts (d) conventional necessities
7. Consumer surplus means
   (a) the area outside the budget line (b) the difference between AR and MR
   (c) the difference between the maximum amount a person is willing to pay for a good and its Market price (d) the area inside the budget line
8. Total utility is maximum when
   (a) marginal utility is maximum (b) marginal utility is minimum
   (c)Marginal utility is zero (d) marginal utility is less than average utility
9. Incase of Giffen's goods, the demand curve

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(a) slopes downwards (b) slopes upwards (c) intersects supply curve (d) meets cost curve

10. In short run firms can adjust their production by changing their
    (a) fixed factors (b) variable factors (c) semi-fixed factors (d) both (a) & (b)

FILL IN THE BLANKS:

1. Earlier, economics is defined as a science of Wealth.
2. Managerial economics is prescriptive in nature as it suggests the right course of action for a given managerial problem.
3. The technique of establishing economical and logical relationship among the given variable is called Model building.
4. The decision that deals with the changes in the production consequent upon the changes in inputs is called input-output analysis.
5. Consumption deals with consumer behavior.
6. Consumer goods are those which are available for ultimate consumption.
7. An extension is the downward movement along a demand curve.
8. The duration of short-run is relatively shorter than that of long-run.
9. The goods on which the consumer spends major portion of his income are called giffen goods.
10. The relationship between one variable and its determinants with respect to the quantity demand is called demand function.

UNIT-II
DEMAND ANALYSIS-II ELASTICITY OF DEMAND & DEMAND FORECASTING

I. Multiple Choice Questions:

1. Demand forecasting is not governed by
   (a) Forecasting level (b) degree of orientation (c) degree of competition (d) Market support.
2. The total estimate of different trade associations can also be viewed as
   (a) Firm's forecast (b) National forecast (c) Industry forecast (d) Global forecast
3. Forecasts in terms of total sales can be viewed as ……………….forecast.
   (a) Specific (b) general (c) determined (d) Leading
4. Market demand is not affected by
   (a) Demography factors (b) Economic factors (c) social factors (d) political factors.
5. In…………..an equation is estimated which best fits in the sets of observations of dependent variables and independent variables.
   (a) Correlation (b) regression (c) barometric technique (d) salesforce opinion method
6. If the income elasticity is positive and greater than one, it is a
   (a) Necessity (b) inferior good (c) normal good (d) superior good
7. Price elasticity is always
   (a) Positive (b) negative (c) consistent (d) declining
8. The demand is said to be relatively inelastic when the change in demand is………the change in the price.
   (a) More than (b) less than (c) equal to (d) not related to
9. Elasticity computed at a given point on the demand curve for an infinitesimal change in price is called
   (a) Unit elasticity (b) arc elasticity (C) Point elasticity (d) arc point elasticity
10. For which of the following categories is the income elasticity of demand negative?
    (a) Inferior goods (b) luxury goods (c) medium goods (d) necessities

II. FILL IN THE BLANKS:

1. The ratio of proportionate change in quantity demanded of a particular product to the proportionate change in its price is called price elasticity of demand.
2. Rate of responsiveness in demand of a commodity for a given change in price is called elasticity.
3. The elasticity between two separate points of demand curve is called arc elasticity.
4. A product with lower number of substitutes is enjoys inelastic demand

5. Demand forecasting is relatively easier in case of established products.
6. Census method is also called total enumeration method.
7. The market demand for a given marketing effort is called market forecast.
8. One set of data is used to predict another set in barometric techniques.
9. Exponential smoothing is an improvement over Moving Averages method.
10. The method of launching the product in a limited market to assess its acceptability among limited number of customers is called test marketing.

UNIT-III
THEORY OF PRODUCTION AND COST CONCEPTS

I. Multiple Choice Questions:

1. If the level of production changes, the total cost changes and thus the isocost curve
   (a) Moves downwards (b) Moves upwards (c) moves in a linear fashion
   (d)Moves in a haphazard manner.
2. Which of the following is not a feature of an isoquant?
   (a) downward sloping (b) convex to origin (c) one intersecting the other isoquant
   (d) do not touch axes

3. The long run, as Economists describe, means
(a) when all the factors of production are variable and firms are free to leave or enter the industry
(b) a period where the law of diminishing returns holds good.
(c)a period where there are no variable inputs.
(d) all inputs are fixed in supply.

4. The Law of returns is also called
(a) law of fixed proportions (b) law of variable proportions (c) law of constant returns (d) law of increasing returns.

5. According to which of the following experts, production function is defined as the maximum amount of output produced with a given set of inputs?
(a) samuelson (b) michael R Baye (c) Cobb-Douglas (d) Boney M

6. Which of the following refers to the expenditure incurred to produce a particular product or service?
(a) profit (b) price (c) capital (d) cost

7. Short run cost curves are called
(a) operating curves (b) fixed curves (c) variable curves (d) planning curves

8. which of the following are fixed in the short run?
(a) variable costs (b) semi variable costs (c) fixed costs (d) semi fixed costs

9. The costs of the next best alternative foregone is known as
(a) implicit cost (b) sunk cost (c) opportunity cost (d) controllable cost

10. Marginal cost concept in economic theory is not useful to matters relating to
(a) allocation of resources (b) product pricing decisions (c) make or buy decisions
(d) product promotion strategies.

II. FILL IN THE BLANKS:

1. The quantities of output throughout a given isoproduct or isoquant are equal.
2. Expansion path is also called scale line.
3. The points of tangency represent least cost combination of inputs.
4. L-shaped isocost denotes fixed coefficients of production.
5. Returns to scale are also called factor productivities.
6. When the average cost is falling marginal cost is less than average cost.
7. Timing of cashflows are determined in economic costs.
8. The firm reaches the optimum scale when its marginal cost = average cost.
9. The classification of fixed costs and variable costs holds good only in short run.
10. Telephone bill is an example of semi fixed or semi variable costs.

UNIT-IV

MARKET STRUCTURES & PRICING STRATEGIES

I. Multiple choice questions:

1. A monopolist can either control the price or ……..but not both.
   (a)cost (b)output (c) input (d) profit
2. Under perfect competition, the price is equal to
   (a) AR=MR (b) AR>MR (c) MR>AR (d) MR not equal to AR
3. In a perfect competition, the demand curve for an individual firm is horizontal and
   (a) perfectly inelastic (b) perfectly elastic (c) unit elasticity (d) none of the above
4. In the short period equilibrium, the price at which the available stock can be sold is called

(a) standard price (b) retail price (c) market price (d) normal price

5. Price in the long run is called

(a) standard price (b) retail price (c) market price (d) normal price

6. The cause for monopoly is not due to

(a) government policies and legal provisions (b) control over outputs (c) mergers and acquisitions (d) research & development

7. The nature of demand curve in Monopoly is

(a) perfect elastic (b) unit elasticity (c) inelastic (d) none of the above

8. Price discrimination is also called as

(a) standard pricing (b) preferential pricing (d) differential pricing (d) none of the above

9. Which of the following is not a feature of monopoly?

(a) single firm (b) Includes no close substitutes nor competitors (c) products with elastic demand (d) certain statutory privileges

10. Which of the following refers to the change in revenue by producing and selling one more unit?

(a) total revenue (b) average revenue (c) marginal revenue (d)marginal cost

II. Fill in the blanks:

1. The market with many producers, each producing a differentiated product, is called monopolistic competition.
2. A market in which there is freedom of entry and exit for the traders is called perfect market.
3. In a monopolistic competition , the products are similar but not identical.
4. The seller is a price taker in perfect competition.
5. The main feature of monopolistic competition is price differentiation/differential pricing.
6. The market with a single buyer is called monopsony.
7. Tenders are based on sealed bid pricing.
8. The pricing strategy where the company fixes very high price for its new product is called market skimming.
9. The method of pricing where the firm uses the profiles accrued from one of its products to product diversification is called cross subsidisation.
10. In a perfect market, there is perfect mobility of factors of production.

UNIT-V
TYPES OF BUSINESS ORGANISATIONS & NEW ECONOMIC ENVIRONMENT

I. Multiple Choice Questions:

1. Which of the following is not a factor affecting the choice of a business organisation?
   (a) Liability (b) agreement (c) quick decision making (d) flexibility
2. The sole trader form of organisation is not suitable when
   (a) Business is small (b) it requires low volume of capital (c) risk is high
   (d)personal attention is necessary to take care of the customers.
3. Which of the following is not a feature of partnership?

(a) relationship (b) there should be a business (c) agreement
(d) no partner can act for other partners.

4. The closure of partnership is called
(a) resolution (b) revolution (c) solution (d) dissolution
5. The minimum paid up capital in a public company is
(a) Rs.2 lakhs and higher (b) Rs. 10 lakhs and higher (c) Rs.24 lakhs and higher
(d) Rs. 5 lakhs and higher.

6. In which of the following years did the industrial policy resolution emphasised on increasing state involvement through the public sector?
(a) 1991 (b) 1956 (c) 1981 (d) 1976
7. Which of the following includes offering the shareholding in public institutions to employees and general public?
(a) investment (b) divestment (c) mutual funds (d) policy
8. The changes in respect of foreign technology agreement introduced in 1991 were meant to attract
(a) NRI's (b) FDI's (c) Investors (d) Policy Makers
9. SLR refers to
(a) standard lending rate (b) statutory lending ratio (c) statutory liquidity ratio (d) statutory rate
10. Privatisation is a form of
(a) liberalisation (b) globalisation (c) deregulation (d) divestment

II Fill in the blanks:

1. The liability extending to the personal property of the trader is called unlimited liability.
2. An artificial person created by law with perpetual succession and common seal is called joint stock company.
3. The shares of a public company can be transferred.
4. A private company is prohibited from issue of prospectus.
5. Partner who does not take active interest in managing the affairs of partnership is called sleeping partner.
6. Privatisation is a form of deregulation.
7. Opening up the economy for foreign direct investment is called globalisation
8. Monopolies are done away with deregulation policy.
9. The practice of selling goods abroad at below the normal price or even below the cost is called dumping.
10. Globalisation is characterized by reduction of trade barriers.

CAPITAL AND CAPITAL BUDGETING

I. MULTIPLE CHOICE QUESTIONS.

1. Which of the following is created over a period of time through abstinence to spend?
(a) Profit (b) wealth (c) cash (d) contribution
2. Capital is the value of total assets available with business, according to the view expressed by
(a) Accountant (b) manager (c) economist (d) physicist
3. Capital creates and enhances the level of
(a) Capital gains (b) wealth management (c) employment opportunities (d) current expenses
4. The capital used to meet regular or recurring needs of the business is called

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(a) Paid-up capital (b) working capital (c) fixed capital (d) cost of capital

5. Which of the following frees money due to the business for growth and expansion
   (a) Factoring (b) commercial paper (c) credit rating (d) internal funds
6. Which concept is used to compare cash inflows occurring at different points of time with the corresponding cash flows?
   (a) Internal rate of return (b) accounting rate of return (c) time value of money
7. If the rate of return is more than the cost of capital, then the project is
   (a) Accepted (b) rejected (c) denied (d) postponed
8. If the …………is more than the cost of capital, the project is profitable
   (a) ARR (b) Payback period (c) IRR (d) working capital
9. IRR is the rate at which the difference between the present value of cash inflows and the original cost is
   (a) >1 (b) <1 (c)=1 (d) =0
10. Profitability Index is advantageous because…………
   (a) Qualitative factors are ignored (b) business conditions are valatile
   (c)Assumptions are unrelative (d) profitable projects can be short-listed faster

II. Fill in the blanks:

1. Fixed assets have low degree of liquidity.
2. One of the examples for financial fixed assets is shares.
3. A unit of capital is called share.
4. The preference shares rights are (a) right to enjoy dividend and (b) right to refund capital.
5. Secret reserves are not shown in balance sheet.
6. Transfer of ownership never takes place in leasing.
7. Any two facilities provided by Industrial Development Bank of India are
   (a) Underwriting the public issues (b) providing guarantees
8. The apex institution which oversees the financial requirements of small industries in India is SIDBI
9. Profit per share is called dividend.
10. Preference shares are not having voting rights.

INTRODUCTION TO FINANCIAL ACCOUNTING

I. MULTIPLE CHOICE QUESTIONS

1. Creditors of financial institutions use the accounting information to analyse
   (a) Interest rates (b) financial status (c) creditworthiness (d) owners or shareholders position
2. The financial statements comprise
   (a) Trading account, balance sheet
   (b) Balance sheet, ledger
   (c) Journal, ledger
   (d) Trading account, profit & Loss account, Balance sheet
3. Management accounting starts where ………ends.
   (a) Cost accounting (b) standard costing (c) financial accounting (d) accounting concepts
4. The moment transactions take place in business, they are recorded in
   (a) Ledger (b) trial balance (c) journal (d) final accounts
5. Which of the following is both journal and ledger account?
   (a) Cash receipts (b) cash payments (c) cash book (d) discount columns
6. Purchase of stock for cash
   (a) Decreases total assets (b) increases total assets (c) no change in assets (d) increases total liabilities.
7. Loyalty of the employee is not disclosed in the financial statements. This is because of
   (a) Money measurement concept (b) accrual concept (c) going concern concept
   (e) Matching concept.
8. Club fee collected is an example for
   (a) Revenue account (b) expense account (c) asset account (d) liability account

9. Purchases book records
   (a) Cash purchases (b) credit purchases (c) goods bought (d) goods.
10. Patents account is
   (a) Real account (b) personal account (c) nominal account (d) none of the above
11. Cost accounting refers to the application of …… and ……..principles, methods and techniques in the ascertainment of costs.
   (a) Accounting, management (b) management, costing (c) accounting, costing (d)management, financial accounting.
12. Goods or money used for personal purpose is an example for
   (a) Net sales (b) net purchases (c) drawings (d) capital
13. The difference between assets and liabilities is called
   (a) Overdraft (b) capital (c) net purchases (d) sales.
14. Which of the following is not a sub-set of accounting?
   (a) Book keeping (b) financial accounting (c) cost accounting (d) management accounting
15. Which of the accounting concept says that assets = liabilities+owner's capital?
   (a) Dual aspect concept (b) accrual concept (c) goingconcern concept (d) matching concept

FINANCIAL ANALYSIS THROUGH RATIOS (RATIO ANALYSIS)

1. Which would a business be most likely to use its solvency?
   (a) Gross profit ratio (b) debtors collection period (c) current ratio (d) debt-equity ratio
2. Which of the following is useful to see if fixed assets are used efficiently in the business?
   (a) Gross profit ratio (b) debtors collection period (c) current ratio (d) asset turnover ratio
3. Which of the following measures company's current liabilities?
   (a) Acid test ratio (b) current ratio (c) debtor collection period (d) stock turnover ratio
4. If average collection period is more, it means
   (a) Better collection of receivables (b) poor collection of receivables (c) average collection of receivables (d) satisfactory collection of receivables.
5. Inter-firm comparison is useful only when
   (a) Two firms belong to the same industry
   (b) The data belongs to the same period of the study
   (c) There is increase or decrease in variables of study
   (d) Two firms belong to the same industry and the data is available for the same period of study 6. Higher asset turnover ratio explains
   (a) More profitability (b) better utilisation of assets (c) higher sales turnover (d) large asset base
7. A company's return on investment indicates its
   (a) Solvency (b) stock turnover (c) profitability (d) debtor collection

8. Ratio is the <u>numerical or quantitative</u> relationship between two variables which are comparable.

9. <u>Interpretation</u> refers to evaluating the ratio in terms of the laid out standrards or norms.

10. <u>Liquidity</u> refers to how well the firm is in a position to meet its short-term commitments such as payment of salaries, purchase of materials etc.

20. TUTORAIL PROBLEMS

TUTORIAL -1

Definition, nature and scope of Managerial Economics.

Definition: The integration of economic theory with business practice for the purpose of facilitating decision-making and forward planning by management.

Nature: Close to microeconomics operates against the backdrop of macroeconomics, normative statements, prescriptive actions, applied in nature, offers scope to evaluate each alternative, interdisciplinary, assumptions and limitations.

Scope: Demand decision, input-output decision, price-output decision, profit related decisions, investment decisions, economic forecasting and forward planning.

GVPT

TUTORIAL -II

Demand, Law of demand, nature and types of demand:

Demand: Desire of the buyer + willingness to pay + ability to pay
Law of Demand: Other things remaining the same, the amount of quantity demanded rises with every fall in the price and vice versa.
Nature & Types of Demand: 1. Consumer Goods, producer goods, 2. Autonomous demand , derived demand, 3. Durable and perishable goods, 4. Firm demand and industry demand, 5. Short-run demand and long-run demand, 6. New demand and replacement demand, 7. Total market and segment market demand.

TUTORIAL -III

Elasticity of demand and its types, measurement of elasticity of demand, methods of demand forecasting.
Elasticity of Demand: The rate of responsiveness in the demand of a commodity for a given change in price or any other determinants of demand.
Measurement of Elasticity: Perfectly elastic demand, perfectly inelastic demand, relatively elastic demand, relatively inelastic demand and unity elasticity
Types of demand elasticity: Price elasticity, Income Elasticity, cross elasticity

TUTORIAL -IV

Demand Forecasting methods: Survey Methods: Survey of Buyers Intentions, survey of sales force.
Statistical methods: Trend projection method, barometric techniques, simultaneous equations method, correlation and regression methods.
Other methods: Expert opinion method, test marketing, controlled experiment, judgemental approach

TUTORIAL -V

Production function, input output relationship, law of returns to scale, internal & external economies.
Cost concepts, cost-output relationship in short run and long run., optimum size of the firm.
Production Function: The technical relationship which reveals the maximum amount of output capable of being produced by each and every set of inputs.
Law of Returns to Scale:
Increasing Returns to Scale: The volume of output keeps on increasing with every increase in inputs.
Constant Returns to Scale: The rate of increase/decrease in volume of output is same to that of rate of increase/decrease in inputs.
Decreasing Returns to Scale: The proportionate increase in the inputs does not lead to equivalent increase in output, the oputput increases at a decreasing rate.

TUTORIAL -VI

Cost concepts: Long run and short run costs, fixed and variable costs, semi-fixed or semi-variable costs, marginal cost, controllable and non-controllable costs, opportunity cost and outlay cost, incremental and sunk cost, explicit and implicit costs, out-of-pocket and book costs, replacement costs and historical costs, past costs and future costs, separable costs and joint costs, accounting costs and economic costs, urgent and postponable costs, escapable and unavoidable costs.
Cost-output relationship in short run:Total fixed costs remain fixed irrespective of increase or decrease in production activity. AFC per unit declines as the volume of production increases. The TVC increases proportionately with production, but the rate rate of increase is not constant. The total cost increases with the volume of production. The ATC decreases upto a certain level of production. After this level, it rises steeply. MC is the change in total cost resulting from a unit change in output. The MC also decreases upto a certain level of production but later it rises steeply.
Solving the BEP problems.

TUTORIAL -VII

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TYPES AND FEATURES OF MARKETS, PRICE-OUTPUT DETERMINATION IN CASE OF PERFECT COMPETITION, MONOPOLY, MONOPOLISTIC COMPETITION, PRICING METHODS.

Market: A place or point at which buyers and sellers negotiate their exchange of well-defined products or services.

Types of Markets: Perfect Competition, monopoly competition, monopolistic competition, oligopoly

Price-output determination in case of perfect competition:

OC=QD, OF=QE, OQ=FE, AR=MR (In short run)

AR=MR=Price=AC=MC (In Long Run)

Price-output determination in case of monopoly:

Equilibrium when MR=MC

Price-output determination in monopolistic competition:

MC=MR and AR<AC (supernormal profits) (In short run)

MR=MC, AR=AC at the equilibrium level of output.

TUTORIAL -VIII

Pricing Methods:

Cost-based pricing methods,competition-oriented pricing, demand-oriented pricing, strategy-based pricing.

TUTORIAL -IX

Types of business organization organizations, LPG Policies.

Types of business organizations: Sole trader: Only trader who is also the owner of the business.

Features: Easy to start and east to close, enjoys all profits and losses, unlimited liability, high degree of flexibility, very little legal hassels, business secrets can be guarded well, the business can not be restored, direct touch with the customers, quick decision making.

Partnership: According to Indian Partnership Act, 1932, partnership is the relationship between two or more persons who agree to share the profits of the business carried on by all or any one of them acting for all.

Features: Relationship among persons resulting out of an agreement, two or more persons, there should be a business, agreement, carried on by all or any one of them acting for all, unlimited liability, number of partners in case of banking business 10, in case of non-banking business 20., division of labour, personal contact with customers, flexibility, joint and several liability, implied authority, transferability of shares/interest, taxation, dissolution.

TUTORIAL -X

Joint Stock Company: Associations of many persons who contribute money or money's worth to a common stock and employ it for a common purpose. Sec.3 (1) of the Companies act 1956 defines a company as a company formed and registered under the act or an existing company.

Features: Artificial person, separate legal existence, voluntary association of persons, limited liability, capital is divided into shares, transferability of shares, common seal, perpetual succession, ownership and management separated, winding up, the name of the company ends with limited.

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TUTORIAL -XI

A business needs a new machine and has to make the choice between machine Y and machine Z. The initial cost and the net cash flow over five years (income less running expenses but not depreciation) to the business have been calculated for each machine as follows):

Cash Inflows for Machines Y and Z:

	Machine Y	MachineZ
Initial cost	20,000	28,000
Net cash flow		
1	8,000	10,000
2	12,000	12,000
3	9,000	12,000
4	7,000	9,000
5	6,000	9,000

Only one machine is needed, and at the end of five years, the machine will have no value and will be scrapped. To finance the project the business can borrow money at 10% per annum. Which machine should be chosen under each of these methods?

(a) Payback method
(b) Accounting rate of return
(c) Internal rate of return
(d) Net present value

Ans: MY is selected. Lower payback of 2 yrs as against 3 for MZ.
Select MY under IRR (IRR for machine Y between 20% and 22%, MZ is 20%)
Select MZ under NPV. MZ=7094, MY=4913.

TUTORIAL -XII

Prepare (a) trading account, (b) profit and loss account (c) Balance sheet from the following Bharath's trial balance for the year ending 31/3/2010.

In the books of Bharat Trial Balance As on 31.3.2010

particulars	Rs	Rs
Drawings	4,000	
Discounts allowed	1,500	
Discounts received		500
Office expenses	2,000	
Manufacturing expenses	1,200	
Bills payable	17,000	
Bills receivable	10,000	
Cash in hand	4,800	
Cash at bank	30,800	
Office rent	3,600	
Bharath's capital		2,00,000
Machinery	60,000	
Stock (1.4.2010)	32,000	
Wages	1,00,000	
Carriage inwards	1,000	
Salaries	10,000	
Factory rent	4,800	
Repairs	800	
Fuel and power	5,000	

Furniture	11,000	
buildings	80,000	
Sundry debtors	40,000	
sales		4,07,200
Purchases	2,44,000	
creditors		25,000
Returns inwards	7,200	
Returns outwards		4,000

Adjustments: Closing Stock Rs. 40,000.

TUTORIAL -XIII

Suppose the net sales is 50,000 for a firm and cost of goods sold is Rs.20,000. The details of expenses are as given below:
Administration expenses: Rs.3,000/-
Selling and distribution expense: Rs.4,000/-
Loss on sale of fixed asset: Rs. 3,000/-
Interest on investment: Rs. 2,000/-
Taxes 20%.

Computation of net profits:
Sales-cog=gross profit-administration expenses-selling and distribution expenses=net profit+interest on investments (Non-operating income_-Loss on sale of asset-Taxes @20%

21. DISCUSSION TOPICS

1. Nature and importance of managerial Economics
2. Scope and application areas of Managerial Economics
3. Principles of M.E.
4. Importance of Consumer Laws
5. Demand and factors affecting demand
6. Elasticity of demand
7. Demand Forecasting methods
8. Factors governing the demand forecasting
9. Importance of production & Production functions
10. Laws of returns
11. Returns to scale and returns to factors
12. cost concepts
13. B.E.P. Analysis
14. Differentiate between market structures.
15. price determination under perfect and imperfect competition
16. price determination under monopoly and monopolistic competition.
17. pricing strategies
18. Features of different business organizations
19. Globalisation
20. Liberalisation
21. Privatisation
22. Industrial Policies and Resolutions

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23. Scope for future development
24. Indian reforms towards exim policy
25. Types of capital
26. Working capital cycle, components and factors
27. Capital budgeting techniques
28. Advantages and disadvantages of each technique of capital budgeting
29. Accounting process
30. Users of accounting.
31. accounting concepts and conventions
32. classification of revenue and capital expenses
33. preparation of cash book
34. preparation of balance sheet
35. Importance of ratios
36. Different types of ratios.
37. Limitations of ratios
38. The use of ratios in financial analysis.

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- **Indian Journal of Banking**
- **Indian Journal of Chartered Accountant**

Magazines & News Papers & Electronic Media:
- **Financial Express, Business Line & Economic Times**
- **India Today & Business Outlook**

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24. QUALITY CONTROL SHEETS

A. Course End Survey

B. Teaching Evaluation

25. STUDENT ROLL LIST

26. GROUPWISE STUDENT LIST FOR DISCUSSION TOPICS

Geethanjali College Of Engineering & Technology

DEPARATMENT OF COMPUTER SCIENCE & ENGINEERING

2013-14 III Year B.Tech.(II Semester) A & B-Sections

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