NARSIMHA REDDY ENGINEERING COLLEGE
(Autonomous)
Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad
Accredited by NBA & NAAC with A Grade

COURSE FILE

PROGRAM NAME: B.Tech
Name of the Course: Business Economics and Financial Analysis
Course Code :
Semester and Year: I Semester, I Year
Faculty Name : BATTULA KASI VISWANADHAM

Vision

To emerge as a destination for higher education by transforming learners into achievers by creating, encouraging and thus building a supportive academic environment.

MISSION

To impart Quality Technical Education and to undertake Research and Development with a focus on application and innovation which offers an appropriate solution to the emerging societal needs by making the students globally competitive, morally valuable and socially responsible citizens.

VISION

To emerge as a centre of excellence with global reputation with adaption of rapid advancements in the computer specialization fields.

Mission

To provide a strong theoretical and practical background in area of computer science with an emphasize on software development.
To inculcate professional behavior,strong ethical values,leadership qualities,research capabilities and life long learning
To educate students to effective problem solvers,apply knowledge withsocial sensitivity for the society and humanity as a whole.

Programme Outcomes (POs):

1.Engineering knowledge: Apply the knowledge of mathematics,science,engineering fundamentals, and an engineering specilisationto the solution of complex engineering problems.
2.Problem Analysis:Identify,formulate,review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathemeatics,natural sciences, and engineering sciences.
3.Design/Development of Solutions:Design solutions for complex engineering problems and design system components or process that meet the specified needs with appropriate consideration for the public health and safety, and cultural,societal, and environmental considerations.
4.Conduct investigations of complex problems:Use research based knowledge and research methods including design of experiments,analysis and interpretation of data, and synthesis of information to provide valid conclusions.
5.Modern Tool Usage:Create,select, and apply appropriate techniques,resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of limitations.
6.The Engineer and Society:Apply resaoaning informed bythe contextual knowledge to asses social,health,safety,lega and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7.Environment and suatainability:Undestand the impact of the professional engineering solutions in

societal and environmental contexts, nad demonstrate knowledge of , and need for sustainable development.
8.Ethics:Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9.Individual and team work:Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10.Communication:Communicate effectively on complex engineering activities with the engineering community and with a society at large,such as being able to comprehend and write effective reports and design communication,make effective presentations, and give and receive clers instructions.
11.Project management and finance:Demonstrate knowledge and under standing of the engineering and management principles and apply these to ones own work,as a member and leader in a teem,to manage projects and in multidisciplinary environments.
12.Life long learning:Recognize the need for , and have the presentation nad ability to engage in independent and life long learning in trhe broadest context of technological change.

Program Educational Objectives (PEOs):

PEOs1::To provide students with a solid foundation in mathematics,engineering,basic science fundamentals required to solve computing problems and also to pursue higher studies and research.
PEOs2:To train students with good computer science and engineering breadth so as to comprehend ,analyze,design and create innovative computing products and solutions for real life problems.
PEOs3:To inculcate in students professional and ethical attitude,communication skills,team work skills,multi disciplinary approach and an ability to relate computer engineering issues with social awareness.

Program Specific Outcomes (PSOs):

PSO1:To provide effective and efficientreal time solutions using acquired knowledge in various domains to crack problem solving suitable mathematical analysis,data structure and suitable algorithm.
PSO2:To develop environmental and sustainable engineering solution and having global and social context using modern it tools
PSO3:To exhibit professional and leadership skills with ethical values dealing diversified projects with excellent communication and documentation qualities.

ACADEMIC CALENDER

NARSIMHA REDDY ENGINEERING COLLEGE
(UGC-AUTONOMOUS)
(Sponsored by Jakkula Educational Society)

Maisammaguda (V), Dhulapally Post, Near Kompally, Secunderabad - 500 100 Telangana

Affiliated to JNTUH, Approved by AICTE, New Delhi, Courses Accredited by NBA, NAAC with "A" Grade, An ISO 9001: 2015 Certified Institution

ACADEMIC CALENDAR FOR B.TECH II YEAR I SEMESTER FOR THE AY 2022-23

S.No.	Description	Duration		Duration (Weeks)
		From	To	
1	Commencement of I Semester class work	28-09-2022		
2	1st Spell of Instructions (Including Dussera Vacation)	28-09-2022	26-11-2022	9
3	First Mid Term Examinations	28-11-2022	03-12-2022	1
4	Submission of Mid-I Marks	07-12-2022		
5	Parent-Teacher Meeting	10-12-2022		
6	2nd Spell of Instructions	05-12-2022	28-01-2023	8
7	Second Mid Term Examinations	30-01-2023	04-02-2023	1
8	Submission of Mid-II Marks	07-02-2023		
9	Preparation Holidays & Lab Examinations	06-02-2023	11-02-2023	1
10	End Semester Examinations	13-02-2023	25-02-2023	2

ACADEMIC CALENDAR FOR B.TECH II YEAR II SEMESTER FOR THE AY 2022-23

S.No.	Description	Duration		
		From	To	
1	Commencement of II Semester class work	27-02-2023		
2	1st Spell of Instructions	27-02-2023	22-04-2023	8
3	First Mid Term Examinations	24-04-2023	29-04-2023	1
4	Submission of Mid-I Marks	03-05-2023		
5	Parent-Teacher Meeting	06-05-2023		
6	2nd Spell of Instructions (Including 2 Week Summer Vacation)	01-05-2023	08-07-2023	10
7	Second Mid Term Examinations	10-07-2023	15-07-2023	1
8	Submission of Mid-II Marks	19-07-2023		
9	Preparation Holidays & Lab Examinations	17-07-2023	22-07-2023	1
10	End Semester Examinations	24-07-2023	05-08-2023	2

Copy to:

1. Chairman
2. IQAC
3. All HODs
4. Administrative Officer
5. Account officer
6. Web Portal I/C
7. ERP I/C
8. Library
9. Student Notice Boards

PRINCIPAL

PRINCIPAL
NARASIMHA REDDY ENGINEERING COLLEGE
Survey No: 518, Maisammaguda (V), Dulapally (P),
Medchal (M), Medchal Dist, Hyderabad-500100

SYLLABUS

UNIT–I

IntroductiontoBusinessandEconomics:

Business: Structure of Business Firm, Theory of Firm, Types of Business Entities, Limited Liability Companies, Sources of Capital for a Company, Non-Conventional Sources of Finance.

Economics: Significance of Economics, Micro and Macro Economic Concepts, Concepts and Importance of National Income, Inflation, Money Supply in Inflation, Business Cycle, Features and Phases of Business Cycle. Nature and Scope of Business Economics, Role of Business Economist,Multi disciplinary nature of Business Economics.

UNIT-II

Demand and Supply Analysis:

Elasticity of Demand: Elasticity, Types of Elasticity, Law of Demand, Measurement and Significance of Elasticity of Demand, Factors affecting Elasticity of Demand, Elasticity of Demand in decision making, Demand Forecasting: Characteristics of Good Demand Forecasting, Steps in Demand Forecasting, Methods of Demand Forecasting.

Supply Analysis: Determinants of Supply, Supply Function & Law of Supply.

UNIT-III

Production, Cost, Market Structures & Pricing:

Production Analysis: Factors of Production, Production Function, Production Function with one variable input, two variable inputs, Returns to Scale, Different Types of Production Functions.

Cost analysis: Types of Costs, Short run and Long run Cost Functions.

Market Structures: Nature of Competition, Features of Perfect competition, Monopoly, Oligopoly, and Monopolistic Competition.

Pricing: Types of Pricing, Product Life Cycle based Pricing, Breakeven Analysis, Cost Volume Profit Analysis.

UNIT-IV

Financial Accounting: Accounting concepts and Conventions, Accounting Equation, Double-Entry system of Accounting, Rules for maintaining Books of Accounts, Journal, Posting to Ledger, Preparation of Trial Balance, Elements of Financial Statements, and Preparation of Final Accounts.

UNIT-V

Financial analysis through Ratios: Concept of Ratio Analysis, Liquidity Ratios, Turn over Ratios, Profitability Ratios, Proprietary Ratios,Solvency,Leverage Ratios (simple problems). Introduction to Fund Flow and Cash Flow Analysis (simple problems).

Course Mapping with Programme Outcomes

CO – PO Mapping

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO [1]	2	0	1	1	0	1	1	2	1	3	1	1
CO [2]	3	2	3	1	1	0	1	1	0	2	3	2
CO [3]	0	1	2	1	0	0	2	1	0	3	1	1
CO [4]	1	3	2	2	0	0	2	1	0	3	0	3
CO [5]	1	1	2	0	1	1	1	0	0	3	3	1
Average	1.4	1.4	2	1.4	0.4	0.4	1.4	1	0.2	2.8	1.6	1.6

Nominall Rolls of the Students

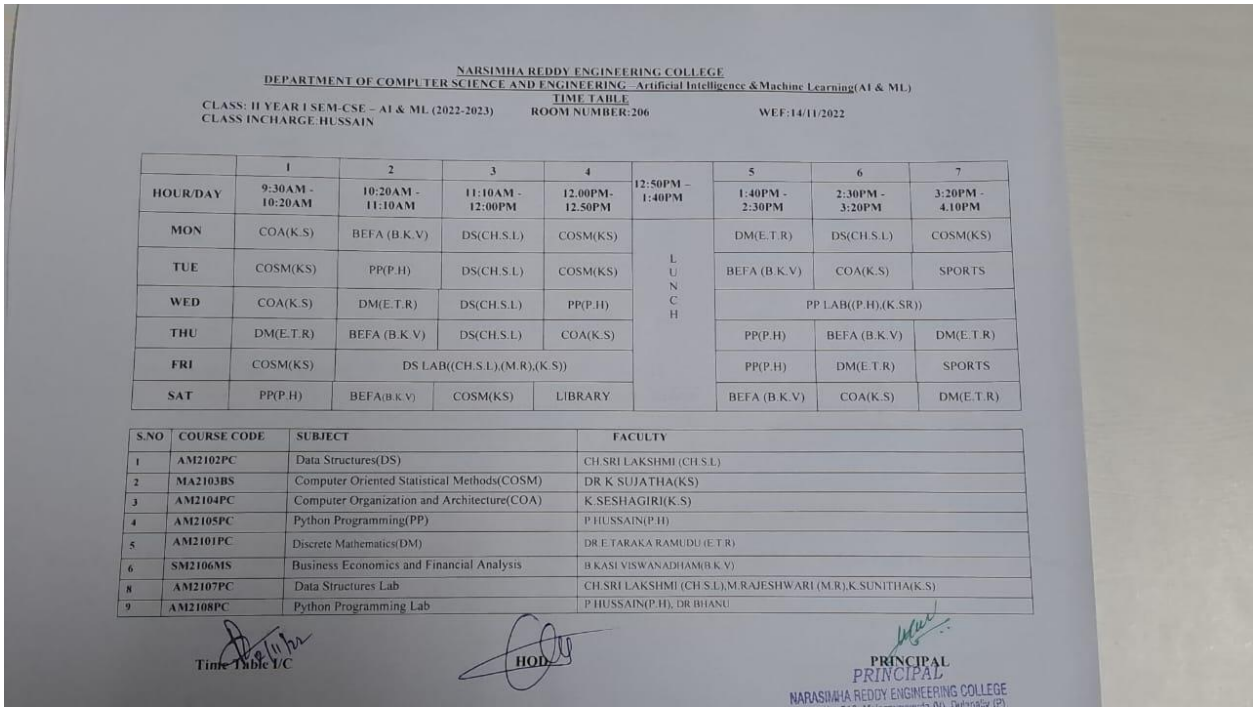
S.NO	ROLL NO	NAME OF THE STUDENT
1	21X01A6601	ADITYA GOUD P
2	21X01A6602	AJAY SINGH
3	21X01A6603	AKASH SHARMA
4	21X01A6604	AMEERPETA SHASHIKANTH
5	21X01A6605	ASHISH HALDER
6	21X01A6606	BELLALA INDHU
7	21X01A6607	BELLAMKONDA MAHESH
8	21X01A6608	BOLLAM VARSHA
9	21X01A6609	CHIKKA RAHUL GOUD
10	21X01A6610	CHENNA VIGNAN
11	21X01A6611	CHENNURI AKSHITHA
12	21X01A6612	DAYAWAR RAJARAJESH

13	21X01A6613	DECHINENI YASHVANTH
14	21X01A6614	DONE CHARAN
15	21X01A6615	DOSAVADA YESHWANTH
16	21X01A6616	ERRABELLI SRUTHI RAO
17	21X01A6617	G SAMPATH
18	21X01A6618	GADE SAI CHARAN
19	21X01A6619	GAJULA VIVEK
20	21X01A6620	GARALLOLA SUPRAJA
21	21X01A6621	GODA MADHU KIRAN REDDY
22	21X01A6622	GOLLA BHAVANI SHANKAR
23	21X01A6623	GRANDHAM YOGI YESHWANTH
24	21X01A6624	GUDDOJI SWATHI
25	21X01A6625	GUGULOTH HARSHITH
26	21X01A6626	GUNDREDDY SAMYUTHA
27	21X01A6627	GUDIKANDULA AKSHAY
28	21X01A6628	ILAPAKURTI NITYA SANTOSH KUMAR
29	21X01A6629	INDRASENAREDDY
30	21X01A6630	JAIDI MAHATHI REDDY
31	21X01A6631	K SHIVA KUMAR
32	21X01A6632	K SRIYA
33	21X01A6633	KAMSALI MANJU SRI
34	21X01A6634	KANDI TEJA REDDY
35	21X01A6635	KILLA SPOORTHI
36	21X01A6636	KOLE SUPRIYA
37	21X01A6637	KOLLU DIVYA SRI
38	21X01A6638	KOTTE SAI SRINIVAS
39	21X01A6639	KURUVA RAHUL

40	21X01A6640	MALLADI DURGA PRASAD
41	21X01A6641	MARGAM VINAY
42	21X01A6642	MODULLA JEYENDRA REDDY
43	21X01A6643	MOHAMMED RIYADH
44	21X01A6644	MUNGAMURI MAHESH
45	21X01A6645	NAMALA SRI NIKHIL
46	21X01A6646	POLEMONI VAMSHI
47	21X01A6647	PARAMATI AASHISH
48	21X01A6648	RAAVI JATIN
49	21X01A6649	RAVULA MANICHAND
50	21X01A6650	SAMUDRALA NIKHIL
51	21X01A6651	SANGAM SANDEEP
52	21X01A6652	SHIVAPALLI PRANAY
53	21X01A6653	SAGI SATYA HARI SUBBARAJU
54	21X01A6654	SHAIK GAFFAR
55	21X01A6655	SURAM RAMANA REDDY
56	21X01A6656	THUMALAPALLY UDAY
57	21X01A6657	UTKARSH MISHRA
58	21X01A6658	VASAMSETTY MAHIMA KUMAR
59	21X01A6659	VEMULA PAVAN KALYAN
60	21X01A6660	VANGARI DINESH KUMAR
61	21X01A6661	VENNA PRAVEEN KUMAR
62	21X01A6662	YELLANKI RASAGNA
63	21X01A6663	YENKUGARI ASHVITH REDDY
64	22X05A6601	AMBATI MEHAR SAI
65	22X05A6602	B.SAI KUMAR
66	22X05A6603	KARNAPURAM KARTHIK
67	22X05A6604	MATTAPALLI TEJA

68	22X05A6605	THALAKOKKULA MADHAV
69	22X05A6606	VENKAIAHGARI SAI PRAKASH

TIME TABLE



NARSIMHA REDDY ENGINEERING COLLEGE
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING –Artificial Intelligence & Machine Learning(AI & ML)
TIME TABLE
CLASS: II YEAR I SEM-CSE – AI & ML (2022-2023) ROOM NUMBER:206 WEF:14/11/2022
CLASS INCHARGE:HUSSAIN

	1	2	3	4	12:50PM – 1:40PM	5	6	7
HOUR/DAY	9:30AM - 10:20AM	10:20AM - 11:10AM	11:10AM - 12:00PM	12.00PM- 12.50PM		1:40PM - 2:30PM	2:30PM - 3:20PM	3:20PM - 4.10PM
MON	COA(K.S)	BEFA (B.K.V)	DS(CH.S.L)	COSM(KS)		DM(E.T.R)	DS(CH.S.L)	COSM(KS)
TUE	COSM(KS)	PP(P.H)	DS(CH.S.L)	COSM(KS)	L U N C H	BEFA (B.K.V)	COA(K.S)	SPORTS
WED	COA(K.S)	DM(E.T.R)	DS(CH.S.L)	PP(P.H)		PP LAB((P.H),(K.SR))		
THU	DM(E.T.R)	BEFA (B.K.V)	DS(CH.S.L)	COA(K.S)		PP(P.H)	BEFA (B.K.V)	DM(E.T.R)
FRI	COSM(KS)	DS LAB((CH.S.L),(M.R),(K.S))				PP(P.H)	DM(E.T.R)	SPORTS
SAT	PP(P.H)	BEFA(B.K.V)	COSM(KS)	LIBRARY		BEFA (B.K.V)	COA(K.S)	DM(E.T.R)

S.NO	COURSE CODE	SUBJECT	FACULTY
1	AM2102PC	Data Structures(DS)	CH.SRI LAKSHMI (CH.S.L)
2	MA2103BS	Computer Oriented Statistical Methods(COSM)	DR K SUJATHA(KS)
3	AM2104PC	Computer Organization and Architecture(COA)	K.SESHAGIRI(K.S)
4	AM2105PC	Python Programming(PP)	P.HUSSAIN(P.H)
5	AM2101PC	Discrete Mathematics(DM)	DR.E.TARAKA RAMUDU (E.T.R)
6	SM2106MS	Business Economics and Financial Analysis	B.KASI VISWANADHAM(B.K.V)
8	AM2107PC	Data Structures Lab	CH.SRI LAKSHMI (CH.S.L),M.RAJESHWARI (M.R),K.SUNITHA(K.S)
9	AM2108PC	Python Programming Lab	P.HUSSAIN(P.H), DR.BHANU

Time Table I/C HOD PRINCIPAL
PRINCIPAL
NARASIMHA REDDY ENGINEERING COLLEGE

INDIVIDUAL TIME TABLE

DAY/PERIOD	1	2	3	4	5	6	7
MONDAY		BEFA					
TUESDAY					BEFA		
WEDNESDAY							
THURSDAY		BEFA				BEFA	
FRIDAY							
SATURDAY		BEFA			BEFA		

LESSON PLAN

Name of the staff :B.KASI VISWANADHAM **Department:** MBA

Branch : AIML **Semester : I**

Course Title : BEFA **Course code:**

S.no.	Unit no.	Topics to be covered	Periods
1		**Introduction to Business and Economics:**	**14**
2	I	Definitions– Business and Economics:	1
3		Structure of Business Firm, Theory of Firm,	1
4		Types of Business Entities,	2
5		Non-Conventional Sources of Finance	1
6		Significance of Economics, Micro and Macro Economic Concepts, Concepts and Importance of National Income, Inflation, Money Supply in Inflation	4
7		Features and Phases of Business Cycle	2
8		Nature and Scope of Business Economics	2
9		**Demand and Supply Analysis:**	**12**
10	II	Elasticity of Demand	1
11		Types of Elasticity	1
12		Law of Demand	1
13		Measurement and Significance of Elasticity of Demand	1
14		Elasticity of Demand in decision making	1
15		Demand Forecasting: Characteristics of Good Demand Forecasting	1
16		Factors affecting Elasticity of Demand,	1
17		Methods of Demand Forecasting	1
18		Supply Analysis	1
19		Determinants of Supply	1
20		Supply Functions	1
21		Law of Supply.	1
22		**Production, Cost, Market Structures & Pricing**	**14**
23	III	**Introduction to:** Production Analysis	1
24		Factors of Production	1
25		Production Function with one variable input, two variable inputs	2
26		Law of Returns to Scale	1

27		Different Types of Production Functions	1
28		Cost analysis: Types of Costs, Short run and Long run Cost Function	1
29		Market Structures: Nature of Competition	1
30		Features of Perfect competition	1
31		Monopoly, Oligopoly, and Monopolistic Competition	1
32		Pricing: Types of Pricing	1
33		Product Life Cycle based Pricing,	1
34		Break Even Analysis	1
35		Cost Volume Profit Analysis.	1
36		**Introduction to Financial Accounting & Financial Analysis:**	**12**
37	IV	**Introduction to** Financial Accounting	1
38		Accounting, Rules for maintaining Books of Accounts	1
39		Accounting concepts and Conventions	1
40		Accounting Equation	1
41		Double-Entry system	1
42		Rules for maintaining Books of Accounts	1
43		Journal	1
44		Posting to Ledger	1
45		Preparation of Trial Balance	1
46		Elements of Financial Statement	1
47		Preparation of Final Accounts.	1
48		Final Accounts (Trading Account, Profit and Loss Account and Balance Sheet with simple adjustments).	1
49		**Financial Analysis through ratios**	**13**
50	V	**Introduction to** Financial Analysis through Ratios	1
51		Concept of Ratio Analysis	1
52		Liquidity Ratios	1
53		Turnover Ratios	1
54		Profitability Ratios	2
55		Proprietary Ratios	1
56		Leverage Ratios (simple problems)	2
57		Introduction to Fund Flow statement (simple problems).	1
58		Cash Flow Analysis (simple problems).	1
59		Revision	1
60		Revision	1

UNIT WISE QUESTION BANK

BEFA CHAPTERWISE IMPORTANT QUESTIONS

UNIT-1

- Small Questions:

1.a) Sole proprietorship
b) Characteristics of partnership
2.a) Nominal partner

b) Contents of partnership deed
3.a) Characteristics of partnership
b) Long-term source of finance
4.a) Economics
b) Macro economics
5.a) National income
b) Business cycle

- ESSAY QUESTIONS:

1.A) Define business. Discuss the structure of business.
B) Explain the theory of firm.
2.A) Discuss about different types of business entities.
B) Explain about different types of partners.
3.A) Explain about characteristics of joint stock company.
B) Differentiate between private company and public company.
4.A) What are the sources of finance.
B) What is business cycle. Explain about types and phases of business cycles.
5.A) What are the important concepts of national income.
B) Write down about nature and scope of managerial economics.

UNIT-2

- Small Questions:

1.a) Demand
b) Demand function
2.a) Elasticity of demand
b) Income elasticity of demand
3.a) Cross elasticity of demand
b) Law of demand
4.a) Geffen goods
b) Demand forecasting
5.a) Delphi method
b) Supply function

- Essay Questions:

1.A) Define demand. Explain the features of demand.
B) Define elasticity of demand. Explain different types of elasticity of demand.
2.A) Explain different types of price elasticity of demand.
B) Explain measurement of elasticity of demand.
3.A) Explain about significance of elasticity of demand.
B) Describe about factors affecting elasticity of demand.
4.A) Explain about characteristics of good demand forecasting.
B) Explain about the techniques of demand forecasting.
5.A) Define supply. Explain the determinants of supply.
B) Describe about the supply function.

UNIT-3

- Small Questions:

1.a) Production Function
b) Assumptions of law variable proportion
2.a) Increasing returns to scale
b) Opportunity cost
3.a) Explicit cost
b) Perfect competition
4.a) Oligopoly
b) Monopoly
5.a) Sealed bid pricing
b) CVP analysis

➢ Essay Questions:

1.A) Define production. Explain the factors of production.
B) Explain about law of variable proportion.
2.A) Define iso quant. Explain the features of iso quant.
B) Write down about returns to scale.
3.A) Define cost. Explain different types of cost.
B) Write down about different types of markets.
4.A) Discuss price and output determination under perfect competition.
B) Discuss about break even analysis.
5.A) From the following particulars calculate P/V ratio, B.E.P units and estimated sales to get a profit of Rs 1,20,000.

Sales	6,00,000
Fixed cost	1,80,000
Variable cost	3,75,000

B) The following information relating to a company is given to you

Sales	4,00,000
Variable cost	2,50,000
Fixed cost	1,80,000

UNIT-4

❖ Small Questions:

1.a. Meaning of journal
b. Ledger
2a..Define current assets
b.Net profit
3.a. Trading account
b. Profit and loss account
4.a. Explain about accounting concepts
Define fixed assets
5.a. What are the advantages of ledger
b. Describe about accounting conventions

➢ Essay Questions:

1.A) Define financial accounting. Explain the objectives of accounts.
B) What are the branches of accounting. Explain the scope of accounting.
2.A) Explain the concepts and conventions of accounting.
B) Explain about accounting equation.
3.A) Write about double entry. Explain steps involved in double entry system.
B) Differentiate between journal and ledger.
4.A) Journalise the following transactions.

2008 July

1.opened a bank account	50,000
5.purchased goods for cash	5,000
10.purchased machinery from A	15,000
12.paid wages	500
13.goods sold to B for cash	2,000
15.paid electricity bill	200
18.paid to A on account	5,000
20.sold old newspapers	50

B) Journalise the following transactions in the books of Sateesh

2019 September

1.sateesh commenced business with cash	75,000
2.cash deposited into bank	30,000
5.purchased furniture and paid by cheque	1500

7.goods purchased from Srividya 20,000
9.goods returned to Srividya 400
13.paid to Srividya in full settlement 19,500
17.goods sold to Prakash 500
20.goods distributed by way of a free samples 1,000
24.commission received 250
30.paid salaries 5,000

5.A) Prepare a trial balance from the following information
Cash-5000
Purchases-50,000
Rajesh-10,000(Dr balance)
Drawings-500
Discount received -20
Wages-470
Capital-20,000
Sales-70,000
Ramu-13,000(Credit balance)
Discount allowed-50
Salaries-7,000
Machinery-30,000

B) From the following trial balance of Vikram foundry works, prepare trading account and profit and loss account for the year ending March31, 2019.Also prepare a balance sheet as on the date.

Debit balance (Dr)	Total	Credit balance (Cr)	Total
Electricity	14,000	Interest	16,000
Land	1,40,000	Discount	6,000
Interest	16,000	Sales	8,00,000
Wages	50,000	Returns	10,000
Opening stock	20,000	Sundry creditors	60,000
Rent	24,000	Capital	3,02,000
Purchases	3,00,000	Bills payable	15,000
Office expenses	30,000		
Building	4,00,000		
salaries	90,000		
Power gas and water	30,000		
Returns	20,000		
Furniture	15,000		
Sundry debtors	60,000		
Total	12,09,000	Total	12,09,000

UNIT-5

❖ Small Questions:

1.a. Ratio analysis
b. advantages of ratio analysis
2.a. Fund
b. Funds flow statement
3.a. Working capital
b. Funds from operations
4.a. Importance of funds flow
b. Limitations of fundsflow
5.a. Cash flow statement
b. Financial ratio

➢ Essay Questions:

1.A) Explain about utility of ratio analysis.
B) Explain about classification of ratio analysis.

2.A) You are given trading and profit & loss account of Mahesh company limited for the year ended 31st December 1992.

Trading and Profit&loss account

To Opening stock	30,000	By Net sales	1,10,000
To Purchases	60,000	By Closing stock	20,000
To Wages	10,000		
To Gross profit(c/d)	30,000		
	1,30,000		1,30,000
To Administrative expenses	10,000	By Gross profit(b/d)	30,000
To Selling and distribution expenses	5,000	By Sundry receipt	5,000
To Net profit	20,000		
	2,95,000		2,95,000

Calculate:

1.Gross Profit Ratio

2.Net PROFIT Ratio

3.Operating Ratio

4.Operating Profit Ratio

B) Current Ratio=2.5:1

Working Capital=50,000

Calculate Current Assets and Current Liabilities.

3.A) What is a funds flow statement. Explain concepts of funds.

B) Distinguish between funds flow statement and Income Statement.

4.A) Distinguish between Funds Flow Statement and Balance Sheet.

B) Explain the procedure for preparing statement showing changes in working capital.

5.A) Explain the procedure for preparing a statement showing funds from operations.

B) Explain the procedure for preparing a statement showing sources and application of funds.

Model Question Paper

Study Material

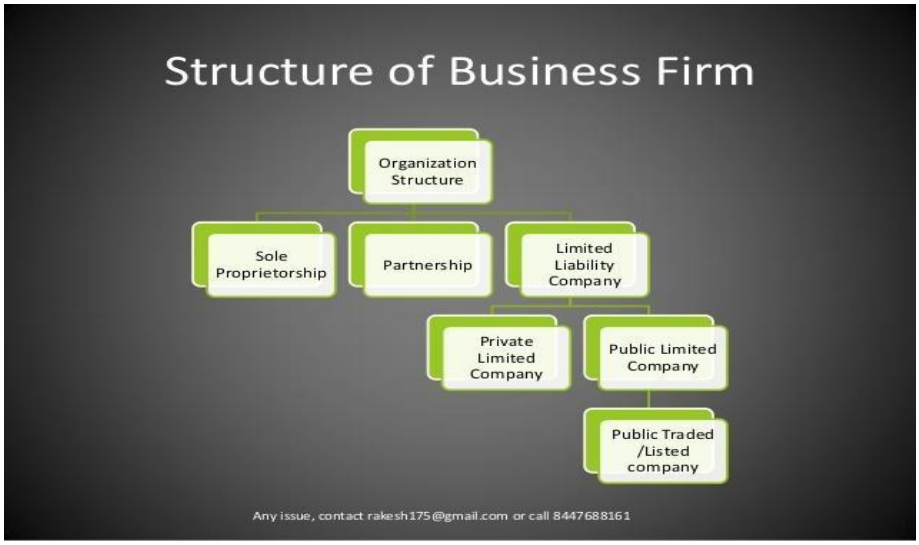
Unit – I: Introduction to Business and Economics

Important Points /

Definitions: Business Firm:

A commercial organization that operates on a for-profit basis and participates in selling goods or services to customers.

Structure of Business Firm:



Theory of the firm

The theory of the firm consists of a number of economic theories that explain and predict the nature of the firm, company, or corporation, including its existence, behaviour, structure, and relationship to the market.

The theory of the firm aims to answer these questions:

1. Existence. Why do firms emerge? Why are not all transactions in the economy mediated over the market?
2. Boundaries. Why is the boundary between firms and the market located exactly there with relation to size and output variety? Which transactions are performed internally and which are negotiated on the market?
3. Organization. Why are firms structured in such a specific way, for example as to hierarchy or decentralization? What is the interplay of formal and informal relationships?
4. Heterogeneity of firm actions/performances. What drives different actions and performances of firms?

Types of theories:

- Transaction Cost Theory
- Managerial Theories
- Behavioural Theories

Types of Business Entities:

- **Sole Proprietorship:** Sole Proprietorship from of business organisation refers to a business enterprise exclusively owned, managed and controlled by a single person with all authority, responsibility and risk.
- **Partnership Firm:** Partnership is an association of two or more persons who pool their financial and managerial resources and agree to carry on a business, and share its profit. The persons who form a partnership are individually known as partners and collectively a firm or partnership firm.

- **Joint Hindu Family Business:** The Joint Hindu Family (JHF) business is a form of business organisation run by Hindu Undivided Family (HUF), where the family members of three successive generations own the business jointly. The head of the family known as Karta manages the business. The other members are called co-parceners and all of them have equal ownership right over the properties of the business.
- **Cooperative Society:** The Section 4 of the Indian Cooperative Societies Act 1912 defines Cooperative Society as "a society, which has its objectives for the promotion of economic interests of its members in accordance with cooperative principles."

Sources of Finance

1. **Long term finance**: Long term finance available for a long period say five years and above. The long term methods outlined below are used to purchase fixed assets such as land and buildings, plant and so on.

a) **Own capital** : Money invested by the owners, partners or promoters is permanent and will stay with the business throughout the life of business.

b) **Share capital** : Normally in the case of a company, the capital is raised by issue of shares. The capital so raised is called share capital. The share capital can be of two types, preference share capital and equity share capital.

c) **Debentures**: Debentures are the loans taken by the company. It is a certificate or letter by the company under its common seal acknowledging the receipt of loan. A

debenture holder is the creditor of the company. A debenture holder is entitled to a fixed rate of interest on the debenture amount.

d) **Government grants and loans**: Government may provide long term finance directly to the business houses or by indirectly subscribing to the shares of the companies.

Medium term finance

a. Bank loans: Bank loans are extended at a fixed rate of interest. Repayment of the loan and interest are scheduled at the beginning and are usually directly debited to the current account of the borrower. These are secured loans.

b. Hire purchase: It is a facility to buy a fixed asset while paying the price over a long period of time. In other words , the possession of the asset can be taken by making a down payment of a part of the price and the balance will be repaid with a fixed rate of interest in agreed number of instalments.

c. Leasing or renting: where there is a need for fixed assets, the asset need not be purchased. It can be taken on lease or rent for specified number of years. Venture capital: this form of finance is available only for limited companies. Venture capital is normally provided in such projects where there is relatively a higher degree of risk.

Short Term Finance

a. Commercial paper: It is new money market instrument introduced in India in recent times. Cps are issued in large denominations by the leading, nationally reputed, highly rated and credit worthy, large manufacturing and finance companies in the public and private sector.
b. Bank overdraft: This is special arrangement with the banker where the customer can draw more than what he has in his saving/ current account subject to a maximum limit. interest is charged on a day to day basis on the actual amount overdrawn .
c. Trade credit: This is short term credit facility extended by the creditors to the debtors, normally, it is common for the traders to buy the materials and other supplies from the suppliers on credit basis.

Business Economics:

Business Economics, also called Managerial Economics, is the application of economic theory and methodology to business.

Significance of Business Economics:

1. Business economic is concerned with those aspects of traditional economics which are relevant for business decision making in real life..
2. It also incorporates useful ideas from other disciplines such as psychology, sociology, etc. If they are found relevant to decision making.
3. Business economics helps in reaching a variety of business decisions in a complicated environment. Certain examples are : (i) What products and services should be produced? (ii) What input and production technique should be used? (iii) How much output should be

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produced and at what prices it should be sold? (iv) What are the best sizes and locations of new plants? (v) When should equipment be replaced? (vi) How should the available capital be allocated?

7. Business economics makes a manager a more competent model builder. It helps him appreciate the essential relationship Characterising a given situation.

8. At the level of the firm. Where its operations are conducted though known focus functional areas, such as finance, marketing, personnel and production, business economics serves as an integrating agent by coordinating the activities in these different areas.

9. Business economics takes cognizance of the interaction between the firm and society, and accomplishes the key role of an agent in achieving the its social and economic welfare goals.

Micro and Macro Economics:

Micro-economics – The term 'micro' means small. Therefore, micro-economics deals with the economic actions of individuals and groups of individuals and firms. This can be stated in another way that microeconomics presents the economic microscopic view of the company.

Macro-economics– The term 'macro' means large. Macro-economics is concerned with the economic behaviour of the whole nation (or economy) in terms of allocation of productive resources, consumption pattern, distribution of income etc.

National Income:

National income of a country means the sum total of incomes earned by the citizens of that country during a given period, say a year .It should be noted that national income is not the sum of all incomes earned by all citizens, but only those incomes which accrue due to participation in the production process.

Importance of National Income:

- Economic Policy
- Economic Planning
- Inflationary and Deflationary Gaps
- Budgetary Policies
- National Expenditure
- Standard of Living Comparision
- Defence and Development
- Public Sector

Inflation:

Inflation refers to General rise in Prices Measured against a Standard Level of Purchasing Power.

Money Supply and Inflation:

The money supply measures the total amount of money in the economy at a particular time. It includes actual notes and coins and also any deposits which can be quickly converted into cash.

Monetarists believe there is a strong link between the money supply and inflation. If the money supply increases faster than real output, then prices will increase causing inflation. This is known as the quantity theory of money (MV=PT)

However, other economists believe this link between the money supply and inflation is more complicated.

Business Cycles:

The alternating periods of expansion and contraction in economic activity has been called business cycles. They are also known as trade cycles. J.M. Keynes writes, "A trade cycle is composed of periods of good trade characterized by rising prices and low unemployment percentages with periods of bad trade characterized by falling prices and high unemployment percentages."

Features of Business Cycles:

- Business cycles occur periodically
- Business cycles are synchronic
- Thirdly, it has been observed that fluctuations occur not only in level of production but also simultaneously in other variables such as employment, investment, consumption, rate of interest and price level.
- Another important feature of business cycles is that investment and consumption of durable consumer goods such as cars, houses, refrigerators are affected most by the cyclical fluctuations.
- Another important feature of business cycles is that profits fluctuate more than any other type of income.

Phases of Business Cycles:

- Expansion (Boom, Upswing or Prosperity)
- Peak (upper turning point)
- Contraction (Downswing, Recession or Depression)
- Trough (lower turning point)

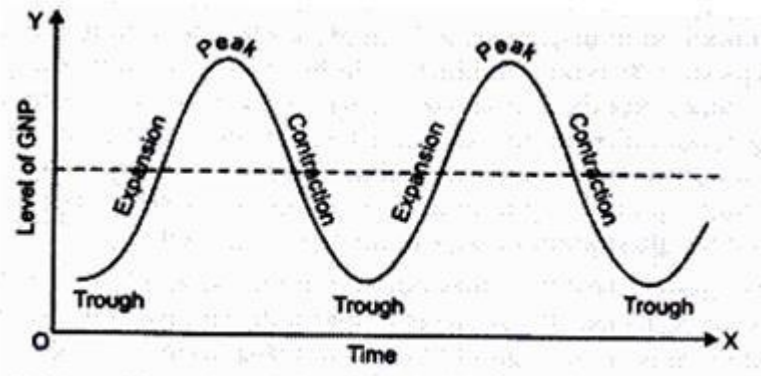


Fig. 13.1. *Four Phases of Business Cycles without Growth Trend*

Nature of Business Economics:

Traditional economic theory has developed along two lines; viz., normative and positive. Normative focuses on prescriptive statements, and help establish rules aimed at attaining the specified goals of business. Positive, on the other hand, focuses on description it aims at describing the manner in which the economic system operates without staffing how they should operate. The emphasis in business economics is on normative theory. Business economic seeks to establish rules which help business firms attain their goals, which indeed is also the essence of the word normative. However, if the firms are to establish valid decision rules, they must thoroughly understand their environment. This requires the study of positive or descriptive theory. Thus, Business economics combines the essentials of the normative and positive economic theory, the emphasis being more on the former than the latter.

Scope of Business Economics :

As regards the scope of business economics, no uniformity of views exists among various authors. However, the following aspects are said to generally fall under business economics.

1. Demand Analysis and Forecasting
2. Cost and production Analysis.
3. Pricing Decisions, policies and practices.
4. Profit Management.
5. Capital Management.

Role and Responsibilities of Business Economists

The role of Business Economist becomes increasingly important in view of the different objectives of the firm. He has a significant role to play in assisting the management of the firm in decision-making and forward planning by using specialized skills and techniques. In advanced countries, large companies employ Business Economist or Managerial Economist to assist the management.

- **Business Economists should study the Environment**

It is the primary duty of Business Economists to make extensive study of the business environment and the external factors affecting the firm's interest, viz., general prices, national income and output, volume of trade, etc.

- **Business Economists should make decisions regarding Business Operations**

The Business Economist can help the management in making decisions regarding the internal business operations by studying and analyzing the following:

1. What should be the production schedule and inventory policies for the coming year?

2. What should be the appropriate price and wage policies?

3. How much cash will be available in the coming months and how should it be invested?

Questions

1.Define Business? State the factors governing choice of form of business organization.
2.Write short notes on Theory of Firm?
3.What do you mean by sole proprietorship? Explain its meant and limitations.
4.Define partnership from of business. Explain its salient features
5.Define a joint stock company & explain its basic features, advantages & disadvantages 6.Write short notes on
(a) Commercial Papers (b) Hire Purchase.
7.Define Business Cycle? Explain various Phases of Business Cycle?
8.Discuss the relationship of Money Supply with Inflation?
9. Discuss the nature & Scope of Business economics?
10.Evaluate the Multidisciplinary nature of Business Economics?
11. Explain the role and responsibilities of a Business Economist?

Objective Questions

1. Which subject studies the behaviour of the firm in theory and practice? ( )
(a) Micro Economics (b) Macro Economics (c) Managerial Economics (d) Welfare Economics
2. Business Economics is close to_____Economics ( )
(a) National (b) Business (c) Micro (d) Industrial
3. The theory of firm also called as_____. ( )
(a) Welfare Economics (b) Industrial Economics (c) Micro Economics (d) None
4. "Any activity aimed at earning or spending money is called_____activity". ( )
(a) Service activity (b) Accounting activity (c) Economic activity (d) None

5. "One man one vote" Principle is adopted in_____. ( )
(a) Partnership firms (b) Company (c) Co-operative enterprises (d) Hindu family business
6. 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
7. Minimum Two and maximum_____members are permitted in Private limited company. ( )
(a) Un-limited (b) 20 (c) 50 (d) 10
8. Minimum____and maximum_____members are permitted in Public limited company. ( )
(a) 50 ; Un-limited (b) 20 ; 50 (c) 7 ; Un-limited (d) 7 ; 50
9. Liability of sole proprietor is_____. ( )
(a) Limited (b) Minimum (c) Un-limited (d) None
10. Liability of Shareholder_____. ( )
(a) Un-limited (b) Maximum (c) Limited to the share capital (d) None
11. Certificate of commencement of business should be obtained by___company to start its functions. ( )

(a) Private (b) Statutory (c) Public (d) Chartered
12. Company operates in more than one Country is called as_____. ( )
(a) Private company (b) Government company (c) Multinational company (d) Indian company

Unit – II: Demand and Supply Analysis

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
4. Advertising elasticity of demand

Price elasticity of demand:

Elasticity of demand in general refers to price elasticity of demand. In other words, it refers to the quantity demanded of a commodity in response to a given change in price. Price elasticity is always negative which indicates that the customer tends to buy more with every fall in the price, the relationship between the price and the demand is inverse.

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

$$Edp = \frac{Q2 - Q1 / Q1}{P2 - P1 / P1}$$

Where:

Q1 = quantity demand price before change

Q2 = quantity demand price after change

P1 = price before change

P2 = price after change

Income elasticity of demand:

Income elasticity of demand refers to the quantity demand of a commodity in response to a given change in income of the consumer.

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

$$EdI = \frac{Q2 - Q1 / Q1}{I2 - I1 / I1}$$

Where:

Q1 = quantity demand price before change

Q2 = quantity demand price after change

I1 = income before change

I2 = income after change

Cross elasticity of demand:

Cross elasticity of demand refers to the quantity demanded of a commodity in response to a change in the price of a related good, which may be substitute or complement.

$$\textbf{Cross elasticity} = \frac{\text{Proportionate change in the quantity demand of commodity “}\mathbf{X}\text{”}}{\qquad\qquad}$$

Proportionate change in the price of commodity "**Y"**

$$EdP = \frac{Q2 - Q1 / Q1}{P2 - P1 / P1}$$

Where:

Q1 = quantity demand price before change

Q2 = quantity demand price after change

P1 = price before change

P2 = price after change

Advertising elasticity of demand:

It refers to increase in the sales revenue because of change in the advertising expenditure. In other words, there is a direct relationship between the amount of money spent on advertising and its impact on sales. Advertising elasticity is always positive.

$$\text{Advertising elasticity} = \frac{\text{Proportionate change in the quantity demand of product "X"}}{\text{Proportionate change in advertisement costs.}}$$

$$EdP = \frac{Q2 - Q1 / Q1}{A2 - A1 / A1}$$

Where:

Q1 = quantity demand price before change

Q2 = quantity demand price after change

A1 = advertising before change

A2 = advertising after change

Demand:

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.

Every want supported by the willingness and ability to but constitutes demand for a particular product or services. In other words, if I want a car and I cannot pay for it, there is no demand for the cat from my side

A product or services is said to have demand when three conditions are satisfied:

- Desire on the part of the buyer to buy
- Willingness to pay for it
- Ability to pay the specified price for it.

Demand Determinants

1. **Price of the product:**

   Demand for a product is inversely related to its price. In other words, if price rises, the demand falls and vice versa. This is the price demand function showing the price effect o demand.

2. **Income of the consumer:**

   As the income of the consumer or the household increases, there is tendency to but more and more up to a particular limit. The demand for product x is directly related to the income of the consumer.

3. **Prices of substitutes or complementary :**

   The demand for product x is determined by the price of its related products: substitutes or complementary. If there is an increase in the price of a substitute, the demand for product x will go up and vice versa. Similar, if the price of complementary goods (to product x) goes up, the demand for product x will fall.

4. **Tastes and preferences:**

   If the tastes and preferences of the consumers changes, then there is change in the product demanded also. Most of the companies keep changing their products and services, as and when the customer's tastes and preferences change. In some case the companies take advantage of technological changes and upgrade their product and services.

Demand function

Demand function is a mathematical expression of relation between the quantity demanded and its determinants. It can be expressed as follows

$$QD = F(P, I, Psc, T, A)$$

Where

Qd = quantity demand

F = functional relational between input

P = price of the product

I = income of the consumer

Psc= price of substituted or complementary

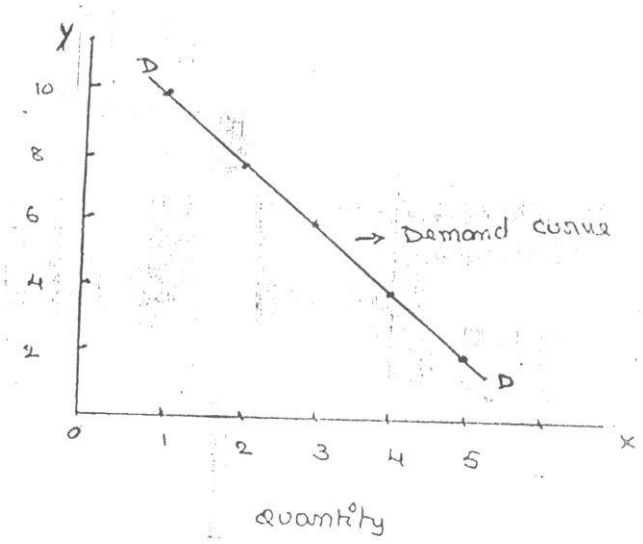
T = taste and preference

A = advertisement

Law of Demand

Law of demand states the relationship between price and quantity demanded. As per the law when price is increased demand will decrease, and similarly, when price is decrease demand will increase, this law assumed that, other things remaining constant, the change in price will inversely affect demand, thus the relationship between price and demand is inverse, the law of demand may be explained with the help of demand schedule,

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



Exceptions of the law of demand.

1. **Where there is a shortage of necessities feared:**

   If the customer fear then there could be shortage of necessities, then this law does not hold good. They may tend to buy more than what they require immediately, even if the price of the product increases.

2. **Where the product is such that it confers distinction:**

   Products such as jewels, diamonds and so on, confer distinction on the part of the user. In such a case, the consumer tends to buy even though there is increase in its price. Such products are called Veblen good.

3. **Giffen paradox:**

   People whose incomes are low purchase more of a commodity such as broken rice, bread etc, when its price rises, conversely when its price falls, instead of buying more, they buy less of this commodity and use the savings for the purchase of better goods such as meat, this phenomenon is called giffen paradox and such goods are good inferior or giffen goods.

4. **In case of ignorance of price changes:**

   At times, the customer may not keep track of changes in price. In such a case, he tends to buy even if there is increase in price.

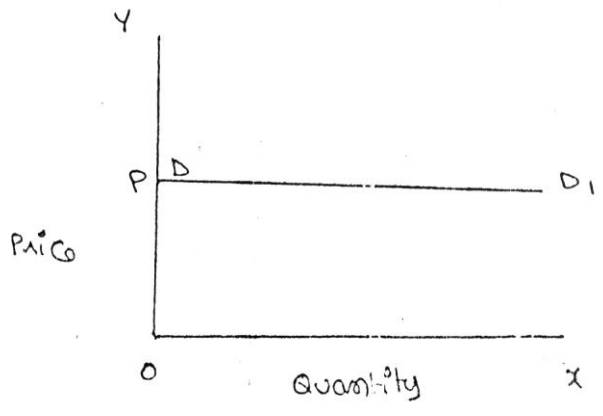
Measurement and Significance of Elasticity of Demand

1. Perfectly elasticity of demand
2. Perfectly inelasticity of demand
3. Relatively elasticity of demand
4. Relatively inelasticity of demand
5. Unity elasticity of demand

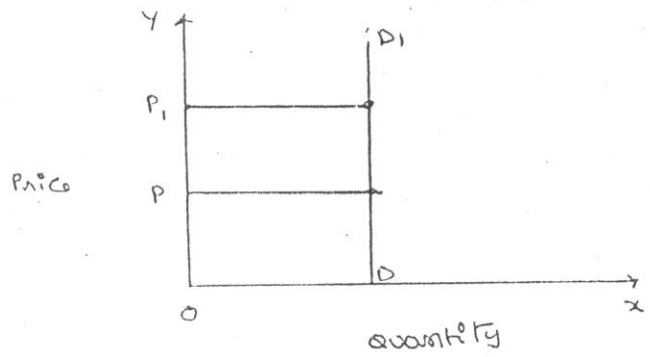
Perfectly elasticity of demand:

When any quantity can be sold at a given price, and when there is no need to reduce price, the demand is said to be perfectly elastic. In such cases, even a small increase in price will lead to complete fall in demand.

Perfectly inelasticity of demand:

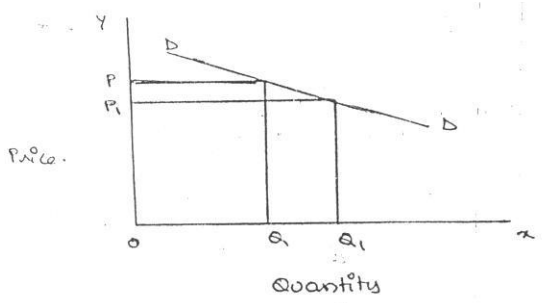


When a significant degree of change in price leads little or no change in the quantity demanded, then the elasticity is said to be perfectly inelasticity. In other words, the demand is said to be perfectly inelasticity when there is no change in the quantity demanded even though there is a big change in the price.



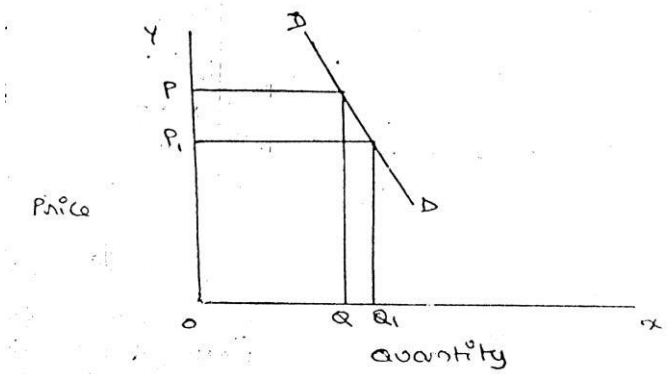
Relatively elasticity of demand

The demand is said to be relatively elasticity when the change in demand is more then the change in the price.



Relatively inelasticity of demand:

The demand is said to be relatively inelasticity when the change in demand is less than the change in the price.



Unit elasticity:

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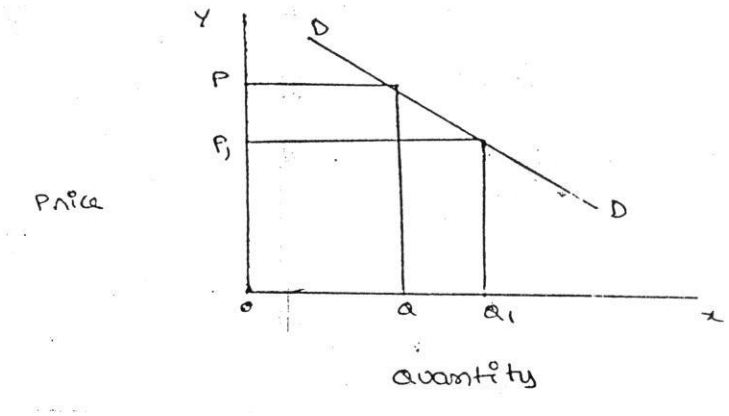


Significance of Elasticity of Demand

a. **Price of factors of production**: The factors of production are land, labour, capital, organizations and technology. These have a cost; we have to pay rent, wages, interest, profits and price for these factors of production.

b. **Price fixation**:

The manufacturer can decide the amount of price that can be fixed for his product based on the concept of elasticity, if there is no competition, in other words in the case of a monopoly, the manufacture is free to fix his price as long as it does not attract the attention of the government, when there are close substitutes, the product is such that its consumption can be postponed, it cannot be put to alternative uses and so on, then the price of the product cannot be fixed very highly.

c. Government policies

1. **Tax policies**: government extensively depends on this concept to finalize its polices relating to taxes and revenues. Where the product is such that the people cannot postpone its consumptions, the government tends to increase its, price, such as petrol and diesel, cigarettes, and so on.

2. **Raising bank deposits** : if the government wants to mobilize larger deposits from the consumer it propose to raise the rates of fixed deposits marginally and vice versa.
3. **Public utilities**: government uses the concept of elasticity in fixing charges for the public utilities such as elasticity tariff, water charges, ticket fare in case of road or rail transport .

d. **Forecasting demand**:

Income elasticity is used to forecast demand for a particular product or services. The demand for the products can be forecast at a give income level. The

trader can estimate the quantity of goods to be sold at different income levels to realize the targeted revenue.

e. **Planning the levels of output and price**:

The knowledge of price elasticity is very useful to producers. The producer can evaluate whether a change in price will bring in adequate revenue or not. In general, for items whose demand is elastic, it would benefit him to charge relatively low price. On the other hand, if the demand for the product is inelastic, a little higher price may be helpful to him to get huge profits without losing sales.

Demand Forecasting

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. The survival and prosperity of a business firm depend on its ability to meet the consumer's needs efficiently and adequately. 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 also essential to distinguish between forecasting of demand and forecast of sales, sales forecasts are important for estimating revenue, cash requirements and expenses whereas, demand forecasting relate to production, inventory control, timing, reliability of forecast etc. however, there is not much difference between these terms.

Methods of Demand Forecasting

1. Survey methods
2. Statistical methods
3. Expert opinion methods
4. Test marketing
5. Controlled experiments
6. Judgmental approach

Statistical Methods

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

1. **Trend projection method:** these are generally based on analysis of past sales patterns.

These methods dispense with the need for costly market research because the necessary information is often already available in company files. This method is used in case the sales data of the firm under consideration relate to different time periods, i.e., it is a time – series data. There are five main techniques of mechanical extrapolation.

a. **Trend line by observation:** this method of forecasting trend is elementary, easy and quick. It involves merely the plotting of actual sales data on a chart and them estimating just by observation where the trend line lies. The line can be extended towards a future period and corresponding sales forecast is read form the graph.

b. **Least squares methods:** this technique uses statistical formulae to find the trend line which best fits the available data. The trend line is the estimating equation, which can be used for forecasting demand by extrapolating the line for future and reading the corresponding values of sales on the graph.
c. **Time series analysis:** where the surveys or market tests are costly and time – consuming, statistical and mathematical analysis of past sales data offers another methods to prepare the forecasts, that is, time series analysis.
d. **Moving average method:** this method considers that the average of past events determine the future events. In other words, this method provides consistent results when the past events are consistent and unaffected by wide changes.
e. **Exponential smoothing:** this is a more popular technique used for short run forecasts. This method is an improvement over moving averages method, unlike in moving averages method, all time periods here are given varying weight, that is , value of the given variable in the recent times are given higher weight and the values of the given variable in the distant past are given relatively lower weights for further processing.

f. **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.
g. **Simultaneous equation method:** in this method, all variable are simultaneously considered, with the conviction that every variable influence the other variables in an economic environment.
h. **Correlation and regression methods:** correlation and regression methods are statistical techniques. Correlation describes the degree of association between two variable such as sales and advertisement expenditure. When the two variable tend to change together, then they are said to be correlated.

Expert opinion methods:

Well informed persons are called experts; experts constitute yet another source of information. These persons are generally the outside experts and they do not have any vested interest in the results of a particular survey. As expert is good at forecasting and analysis the future trend in a give product or service at a given level of technology. The service of an expert could be advantageously used when a firm uses general economic forecasting or special industry fore casting prepared outside the firm.

Test marketing:

It is likely that opinions given by buyers, salesman or other experts may be, at times, misleading. This is the reason why most of the manufactures favour to test their product or service in a limited market as test – run before they launch their product nationwide.

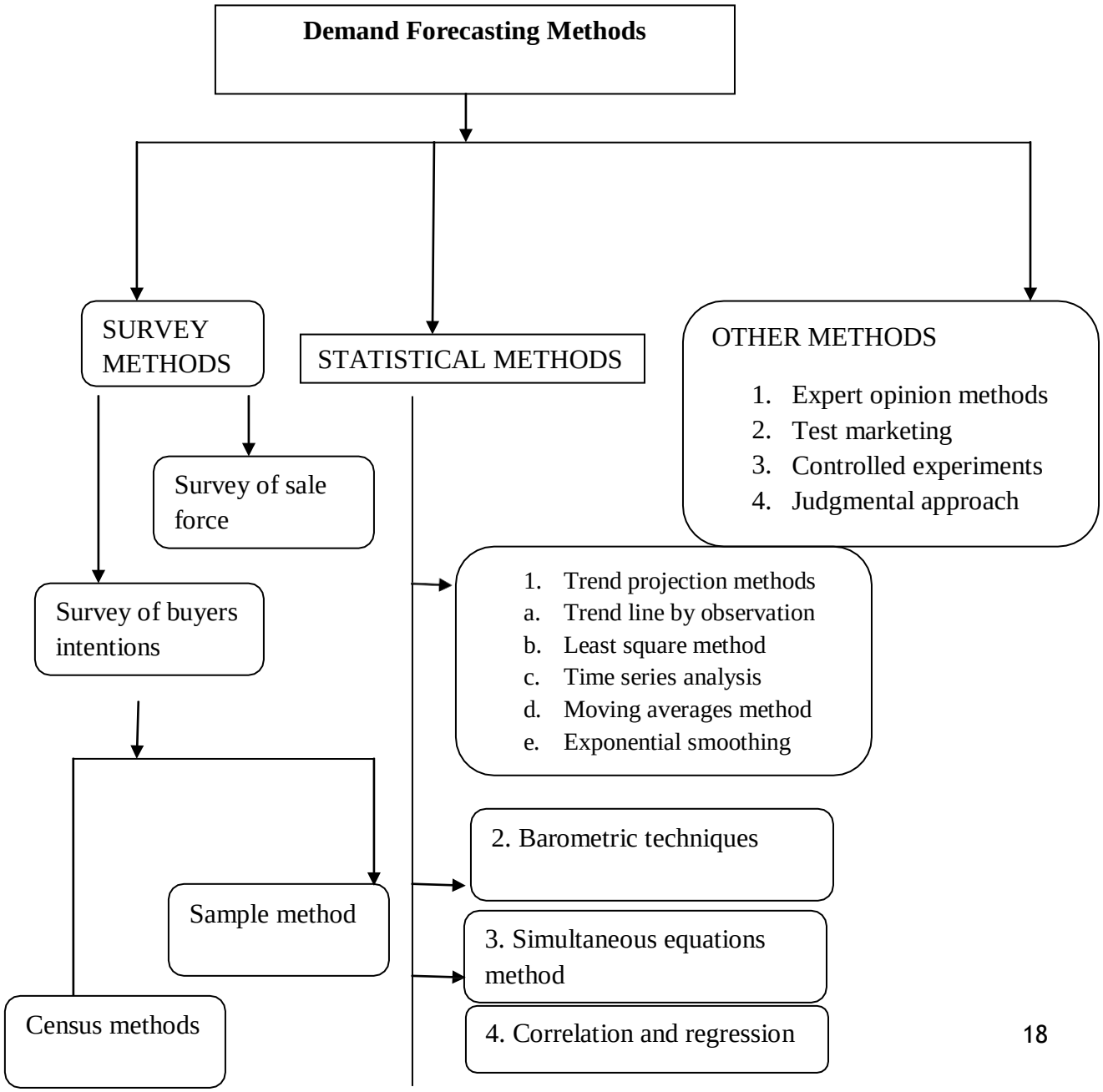
Controlled experiments: Controlled experiment refer to such exercise where some of the major determinants of demand are manipulated to suit to the customers with different tastes

and preferences, income groups, and such others, it is further assumed that all other factors remain the same.

Judgmental approach:

When none of the above methods are directly related to the given product or service, the management has no alternative other than using its own judgment. Even when the above methods are used, the forecasting process is supplemented with the factor of judgment for the following reasons

- Historical data for significantly long period is not available
- Turning point in terms of policies or procedures or causal factors cannot be precisely determined
- Sale fluctuation are wide and significant
- The sophisticated statistical techniques such as regression and so on, may not cover all the signing.



Factors Governing Demand Forecasting

a) **Functional nature of demand:** market demand for a particular product or service is not a single number but it is a function of a number of factors, for instance, higher volumes of sales can be realized with higher levels of advertising or promotion efforts.

b) **Types of forecasting:** based on the period under forecast, the demand forecast can be of two types1) short – run forecasting and 2) long – run forecasting. Short run forecasts cover a period of one year whereas long- run forecasting any period ranging from one year to 20 years.

c) **Forecasting level**: The forecasting can be made at the firm level, industry level, national level or at the global level.

1. **Firm level:** firm level means estimating the demand for the products and services offered by a single firm

2. **Industry level:** the aggregate demand estimated for the good and service of all the firms constitutes the industry level forecast. The total estimate of different trade associations can also be view as industry level forecast.

3. **National level :** national level forecasting is for the whole economy, national level forecasts are worked out based on the levels of income, savings of the consumers.

4. **Global level:** globalization and deregulation , the entrepreneurs have started exploring the foreign markets for which the global level forecasts are utilized.

d) **Degree of orientation:** demand forecasts can be worked out based on total sales or product or service wise sales for a given time period. Forecasting in terms of total sales can be viewed as general forecast whereas product or service – wise or region or customer segment – wise forecast is referred is referred to as specific forecast.

e) **New product:** it is relatively easy to forecast demand for established products or products which are currently in use. The new product in consideration can be analyzed as a substitute for some existing product. Assess the demand through a sampled or total survey of consumers intentions over the new product features and price.

f) **Nature of good:** The goods are classified into producer goods, consumer goods, consumer durables and services. The patterns of forecasting in each of these differ.

g) **Degree of competition:** there may be a single trader or a few traders depending upon the nature of goods and services

Supply Analysis

Law of Supply:

The law of supply shows a direct relationship between price and supply of a commodity. The law states that as the price of commodity increases, the quantity of the commodity supplied per unit of time increases and vice-versa, assuming all other factors influencing supply

remain unchanged. In this statement, change in price is the cause and change in supply is the effect. Thus, price rise leads to supply rise and not otherwise.

The relationship between price and supply can be shown by drawing the supply curve. The supply curve for a product depicts the direct relation between the price of that commodity and the quantity, producers wish to supply at that price.

This curve can be drawn by preparing supply schedule, which is a tabular statement that gives different prices of a commodity and the quantities which a producer is willing to supply per unit of time, at each price, assuming other factors affecting the supply to be constant. A hypothetical supply schedule is given in the following table.

Table 3.1 : Supply Schedule

Price (Rs.)	Quantity (Units)
1	5
2	10
3	15
4	20
5	25

Supply curve based on this imaginary data is shown below (Fig. 3.1)

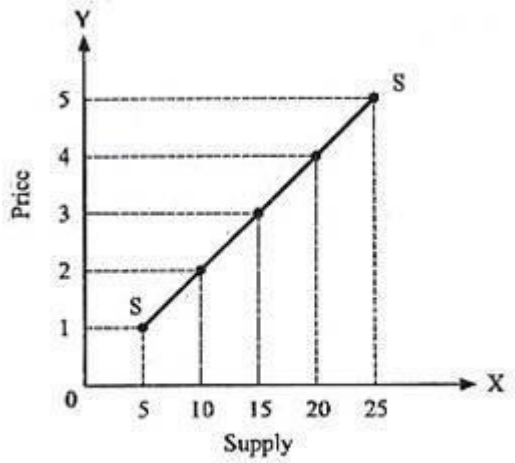


Fig. 3.1: Supply Curve

This curve is drawn on the assumption that all other factors (other than the price of the commodity) that affect the supply remain same. Supply curve conveys the same information as a supply schedule.

Determinants of Supply

Supply can be influenced by a number of factors that are termed as determinants of supply. Generally, the supply of a product depends on its price and cost of production. In simple terms, supply is the function of price and cost of production.

Some of the factors that influence the supply of a product are described as follows:

i. Price:

Price is the main factor that influences the supply of a product to a greater extent. Unlike demand, there is a direct relationship between the price of a product and its supply. If the price of a product increases, then the supply of the product also increases and vice versa. Change in supply with respect to the change in price is termed as the variation in supply of a product.

ii. Cost of Production:

Implies that the supply of a product would decrease with increase in the cost of production and vice versa. The supply of a product and cost of production are inversely related to each other.

iii. Natural Conditions:

Implies that climatic conditions directly affect the supply of certain products. For example, the supply of agricultural products increases when monsoon comes on time. However, the supply of these products decreases at the time of drought.

iv. Technology:

Refers to one of the important determinant of supply. A better and advanced technology increases the production of a product, which results in the increase in the supply of the product.

v. Transport Conditions:

Refer to the fact that better transport facilities increase the supply of products. Transport is always a constraint to the supply of products, as the products are not available on time due to poor transport facilities.

vi. Factor Prices and their Availability:

The inputs, such as raw material man, equipment, and machines, required at the time of production are termed as factors. If the factors are available in sufficient quantity and at lower price, then there would be increase in production. This would increase the supply of a product in the market.

vii. Government's Policies:

Policies of government, such as fiscal policy and industrial policy, has a greater impact on the supply of a product

viii. Prices of Related Goods:

The prices of substitutes and complementary goods also affect the supply of a product. For example, if the price of wheat increases, then farmers would tend to grow more wheat than nee. This would decrease the supply of rice in the market.

Supply Function:

Supply function is the mathematical expression of law of supply. In other words, supply function quantifies the relationship between quantity supplied and price of a product, while keeping the other factors at constant. The law of supply expresses the nature of relationship between quantity supplied and price of a product, while the supply function measures that relationship.

The supply function can be expressed as:

$Sx = f(Px)$

Where:

Sx = Quantity supplied for product X

Px = Price of product X

f = Constant representing change produced in Sx with one unit change in Px

Questions

1. Explain in law of demand with the help of an Illustration?

2. What is meant by elasticity of demand? How do you measure it? What are determinates of elasticity of demand?

3. Describe briefly various types of Elasticity of Demand with the help of Graphs?

4. 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?

5. What is Demand Forecasting. Explain various Demand Forecasting Techniques?

6. Discuss Briefly various factors determining Demand Forecasting?

7. Define Supply and explain Law of Supply?

Objective Questions

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. Giffen 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 = $\propto$ (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) Veblen 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

9. 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

10. 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

11. "Coffee and Tea are the_____goods". ( )

(a) Relative (b) Complementary (c) Substitute (d) None

12. 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

UNIT- III Production, Cost, Market Structures & Pricing

Production Function:

Samuelson define the production function as "the technical relationship which reveals the maximum amount of output capable of being produced by each and every set of inputs"

Michael define production function as " that function which defines the maximum amount of output that can be produced with a given set of inputs".

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(L1,L2,C,O,T)

Where Q is the quantity of production, F explains the functions, that is, the type of relation between inputs and outputs , L1,L2,C,.O,T refer to land, labout, capital, organization and technology respectively. These inputs have been taken in conventional terms. In reality, material also can be included in a set of inputs.

A manufacturer has to make a choice of the production function by considering his technical knowledge, the process of various factors of production and his efficiency level to manage. He should not only select the factors of production but also should work out the different permutations and combinations which will mean lower cost of inputs for a given level of production.

With change in industry and the requirements the production function also needs to be modified to suit to the situation.

Production Function with One Variable Input

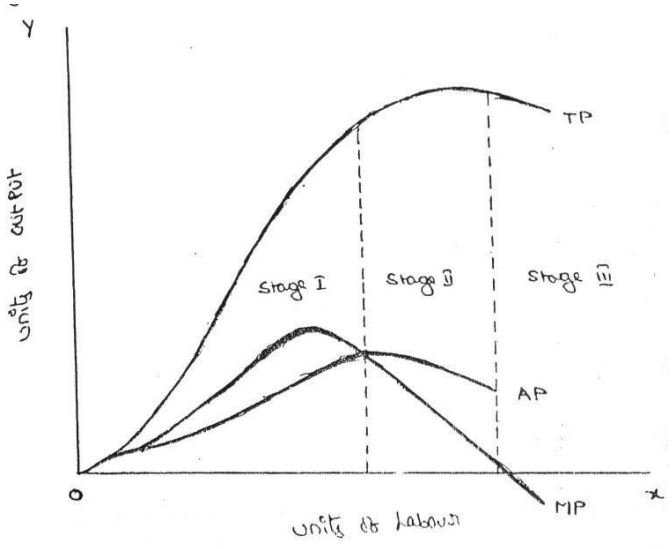
The laws of returns states that when at least one factor of production is fixed or factor input is fixed and when all other factors are varied, the total output in the initial stages will increase at an increasing rate, and after reaching certain level or output the total output will increase at declining rate. If variable factor inputs are added further to the fixed factor input, the total output may decline. This law is of universal nature and it proved to be true in agriculture and industry also. The law of returns is also called the law of variable proportions or the law of diminishing returns.

Definition According to **F. Benham**

"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".

Units of	Total	Marginal	Average	Stages

labour	production(tp)	product (mp)	product (ap)	
0	0	0	0	
1	10	10	10	Stages 1
2	22	12	11	
3	33	11	11	
4	40	7	10	Stages 2
5	45	5	9	
6	48	3	8	
7	48	0	6.85	Stages 3
8	45	-3	5.62	



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.

Production Function with Two Variable Inputs

Production process that requires two inputs, capital© and labour (L) to produce a given output(Q). There could be more than two inputs in a real life situation, but for a simple analysis, we restrict the number of inputs to two only. In other words, the production function based on two inputs can be expressed as

Q = f(C,L)

Where C= capital , L = labour,

Normally, both capital and labour are required to produce a product. To some extent, these two inputs can be substituted for each other. Hence the producer may choose any combination of labour and capital that gives him the required number of units of output, for any one combination of labour and capital out of several such combinations. The alternative combinations of labour and capital yielding a given level of output are such that if the use of one factor input is increased , that of another will decrease and vice versa. How ever, the units of an input foregone to get one unit of the other input changes, depends upon the degree of substitutability between the two input factors, based on the techniques or technology used, the degree of substitutability may vary.

Iso - Quants

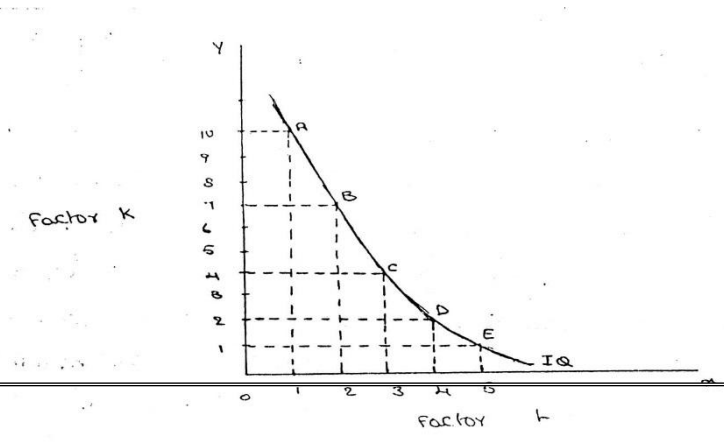
The term Isoquants is derived from the words 'iso' and 'quant' – 'Iso' means equal and 'quent' implies quantity. Isoquant therefore, means equal quantity. Isoquant are also called isopridcut curves, an isoquant curve show various combinations of two input factors such as capital and labour, which yield the same level of output.

As an isoquant curve represents all such combinations which yield equal quantity of output, any or every combination is a good combination for the manufacturer. Since he prefers all these combinations equally , an isoquant curve is also called product indifferent curve.

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.



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

Features of Isoquant

1. Downward sloping: isoquant are downward sloping curves because , if one input increase, the other one reduces. There is no question of increase in both the inputs to yield a given output. A degree of substitution is assumed between the factors of production

2. Convex to origin: isoquant are convex to the origin. It is because the input factors are not perfect substitutes. One input factor can be substituted by other input factor in a diminishing marginal rate. If the input factors were perfect substitutes , the isoquant would be a falling straight line.

3. Do not intersect: two isoquant do not intersect with each other. It is because, each of these denote a particular level of output. If the manufacturer wants to operate at a higher level of output, he has to switch over to another isoquant with a higher level of output and vice versa.

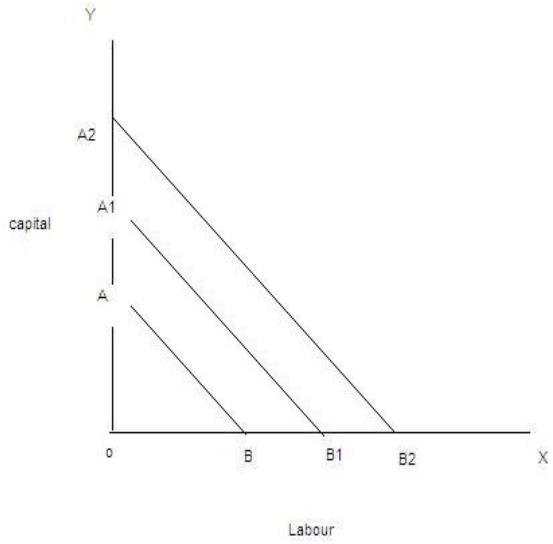
4. Do not axes: the isoquant touches neither X-axis nor Y- axis, as both inputs are required to produce a given product.

Iso Cost

Iso cost refers to that cost curve that represent the combination of inputs that will cost the producer the same amount of money. In other words, each isocost denotes a particular level of total cost for a given level of production. If the level of production changes, the total cost changes and thus the isocost curve moves upwards, and vice verse.

Iso cost line shows various combinations of labour and capital that the firm can buy for a given factor prices. The slope of iso cost line = PL/Pk. In this equation , PL is the price of labour and Pk is the price of capital. The slope of iso cost line indicates the ratio of the factor prices. A set of isocost lines can be drawn for different levels of factor prices, or different sums of money. The iso cost line will shift to the right when money spent on factors increases or firm could buy more as the factor prices are given.

With the change in the factor prices the slope of Isocost line will change. If the price of labour falls the firm could buy more of labour and the line will shift away from the origin. The slope depends on the prices of factors of production and the amount of money which the firm spends on the factors.



Marginal Rate Of Technical Substitution

The marginal rate lof technical substitution (MRTS) refers to the rate at which one input factor is substituted with the other to attain a given level of output. In other words, the lesser units of one input must be compensated by increasing amounts of another input to produce the same level of output.

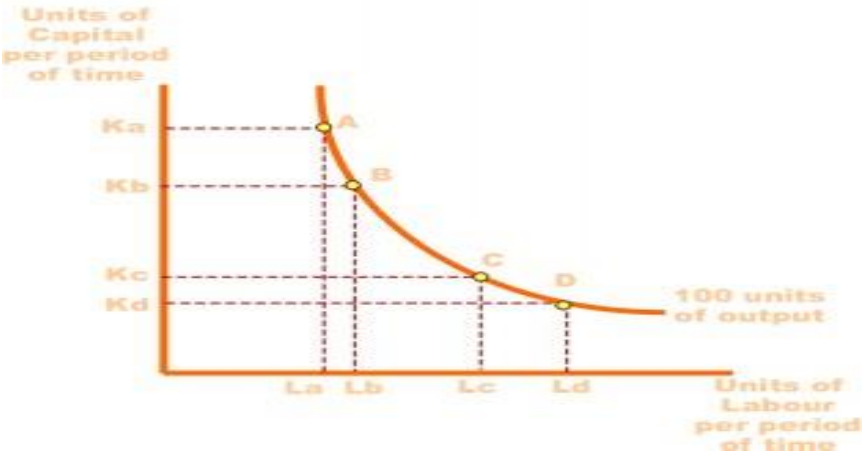
Isoquants are typically convex to the origin reflecting the fact that the two factors are substitutable for each other at varying rates. This rate of substitutability is called the "marginal rate of technical substitution" (MRTS) or occasionally the "marginal rate of substitution in production". It measures the reduction in one input per unit increase in the other input that is just sufficient to maintain a constant level of production. For example, the marginal rate of substitution of labour for capital gives the amount of capital that can be replaced by one unit of labour while keeping output unchanged.

To move from point A to point B in the diagram, the amount of capital is reduced from Ka to Kb while the amount of labour is increased only from La to Lb. To move from point C to point D, the amount of capital is reduced from Kc to Kd while the amount of labour is increased from Lc to Ld. The marginal rate of technical substitution of labour for capital is equivalent to the absolute slope of the isoquant at that point (change in capital divided by change in labour). It is equal to 0 where the isoquant becomes horizontal, and equal to infinity where it becomes vertical.

The opposite is true when going in the other direction (from D to C to B to A). In this case we are looking at the marginal rate of technical substitution capital for labour (which is the reciprocal of the marginal rate of technical substitution labour for capital).

It can also be shown that the marginal rate of substitution labour for capital, is equal to the marginal physical product of labour divided by the marginal physical product of capital.

In the unusual case of two inputs that are perfect substitutes for each other in production, the isoquant would be linear (linear in the sense of a function $y = a - bx$). If, on the other hand, there is only one production process available, factor proportions would be fixed, and these zero-substitutability isoquants would be shown as horizontal or vertical lines.



Law of Returns to Scale

There are three laws of returns governing production function. They are

1. Law of increasing returns to scale
   This law states that the volume of output keeps on increasing with every increase in the inputs,. Where a given increase in inputs leads to a more than proportionate increase in the output, the law of increasing returns to scale is said to operate.
2. Law of constant returns to scale
   When the scope for division of labour gets restricted, the rate of increase in the total output remains constant, the law of constant returns to scale is said to operate, this law states that the rate of increase/decrease in volume of output is same to that of rate of increase/decrease in inputs.
3. Law of decreasing returns to scale
   Where the proportionate increase in the inputs does not lead to equivalent increase in output, the output increases at a decreasing rate, the law of decreasing returns to scale is said to operate. This results in higher average cost per unit.

These laws can be illustrated with an example of agricultural land. Take one acre of land. If you till the land well with adequate bags of fertilizers and sow good quality seeds, the volume of output increases the following table illustrates further

Capital (in units)	Labor(in units)	% of increase in both inputs	Output(in units)	% of increase in output	Law applicable

1	3	---	---	---	---
2	6	100	120	140	Law of increase returns to scale
4	12	100	240	100	Law of constant returns to scale
8	24	100	360	50	Law of decrease returns to scale

Internal and External Economies of Scale

Internal Economies refer to the economies introduction costs which accrue to the firm alone when it expands its output. The internal economies occur as a result of increase in the scale of production.

a. **Managerial Economics**: As the firm expands, the firm needs qualified managerial personnel to handle each of its functions marketing, finance, production, human resources and others in a professional way. Functional specialization ensures minimum wastage and lowers the cost of production in the long –run.
b. **Commercial Economics**: The transaction of buying and selling raw material and other operating supplies such as spares and so on will be rapid and the volume of each transaction also grows as the firm grows, there could be cheaper savings in the procurement, transportation and storage cost, this will lead to lower costs and increased profits.
c. **Financial Economics**: 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.
d. **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.
e. **Marketing Economies:** The large firm reaps marketing or commercial economies in buying its requirements and in selling its final products. In the matter of buying they could enjoy advantages like preferential treatment, transport concessions, cheap credit, prompt delivery and fine relation with dealers.
f. **Risk Bearing Economies**: The large firm produces many commodities and serves wider areas. It is, therefore, able to absorb any shock for its existence
g. **Economics of Larger Dimension**: large – scale production is required to take advantage of bigger size plant and equipment.
h. **Economics of Research and Development**: Only such firms with a strong research and development base can cope with competition globally.

External Economics:

External economics refer to all the firms in the industry, because of growth of the industry as

a whole or because of growth of ancillary industries, external economics benefit al the firms

in the industry as the industry expands. This will lead to lowering the cost of production and thereby increasing the profitability. The external economics can be grouped under three types:

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) **Economics of Research And Development**: all the firms can pool resources to finance research and development activities and thus share the benefits of research. There could be a common facility to shares journals, newspapers and other valuable reference material of common interest.

C) **Economics of Welfare**: there could be common facilities such as canteen, industrial housing, community halls, schools and colleges, employment bureau, hospitals and so on, which can be used in common by the employees in the whole industry.

Cost Analysis

The institute of cost and management accountants (ICMA) has define cost as " the amount expenditure, actual or notional, incurred on or attributable to a specified thing or activity". It is the amount of resources sacrificed to achieve a specific objective. cost refer to the expenditure incurred to produce a particular product or services. Cost refers to the amount of expenditure incurred in acquiring something. In business firm, it refers to the expenditure incurred to produce an output or provide service. Thus the cost incurred in connection with raw material , labour, other heads constitute the overall cost of production.

Cost Concepts :

A managerial economist must have a clear understanding of the different cost concepts for clear business thinking and proper application.. The various relevant concepts of cost are:

Opportunity Cost:

In simple terms, it is the earning from the second is alternative. It represents the maximum possible alternative income that was have been earned if the resources were put to alternative use.

Opportunity cost can be distinguished from outlay costs based on the nature of sacrifice. Outlay costs are those costs that involve cash outflow at sometime and hence they are recorded in the book of account. Opportunity cost refers to earnings/profits that are foregone form alternative ventures by using gives limited facilities for a particular purpose.

Fixed Cost Vs Variable Cost

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

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,

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.

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.

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.

Market Structures

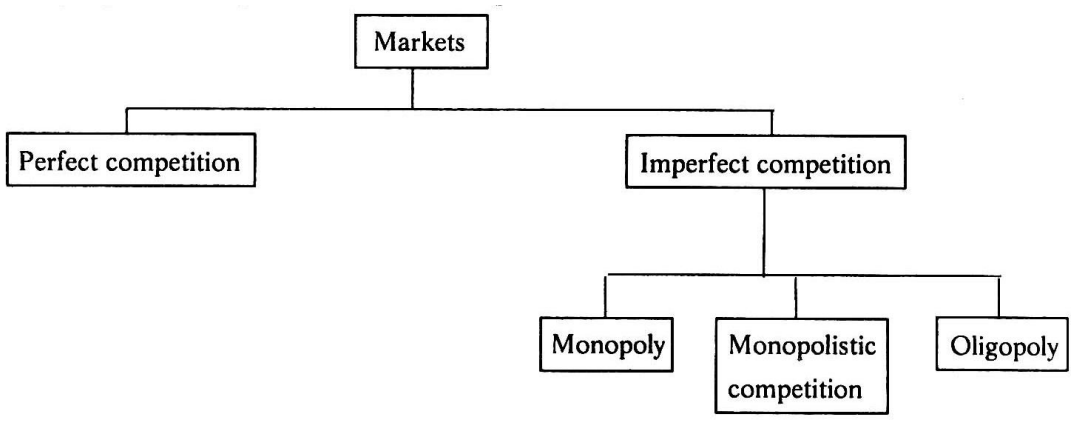
Market:

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. 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.

Market Structures

Market structure describes the competitive environment in the market for any good or service



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.

A market structure in which all firms in an industry are price takers and in which there is freedom of entry into and exit from the industry is called perfect competition. The market with perfect competition conditions is known as perfect market.

Features of perfect competition

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. **Homogenous products or services:** the products and services of each seller should be homogeneous. They cannot be differentiated from that of one another. Freedom to enter or exit the market:.
3. **Prefect information available to the buyers and sellers:** each buyer and seller has total knowledge of the prices prevailing in the market at every given point of time, quantity supplied, costs, demand, nature of product, and other relevant information.
4. **Perfect mobility of factors of production:** there should not be any restrictions on the utilization of factors of production such as land , labour, capital and so on. In words,

the firm or buyer should have free access to the factors of production. Whenever capital or labour is required, it should instantly be made available.

5. **Each firm is a price taker:** an individual firm can alter its rate of production or sales without significantly affecting the market price of the product, a firm in a perfect market cannot influence the market through its own individual actions. It has no alternative other than selling its products at the price prevailing in the market. It cannot sell as much as it wants at its own set price

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

1. **Single person or a firm:** 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. **No close substitute:** 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. **Large number of Buyers:** Under monopoly, there may be a large number of buyers in the market who compete among themselves.
4. **Price Maker:** Since the monopolist controls the whole supply of a commodity, he is a price-maker, and then he can alter the price.
5. **Supply and Price:** 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. **Downward Sloping Demand Curve:** 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.

Monopolistic competition

Monopolistic competition is said to exist when there are many firms and each one produces such goods and services that are close substitutes to each other. They are similar but not identical. Product differentiation is the essential feature of monopolistic. Products can be differentiated by means of unique facilities, advertising, brand loyalty, packaging, pricing, terms of credit, superior maintenance services, convenient location and so on

Features of Monopolistic Competition

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.
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.
3. **Large Number of Buyers:** 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.
4. **Free Entry and Exist of Firms:** 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. **Selling costs:** 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. **Imperfect Knowledge:** 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.
7. **The Group:** 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

Pricing Methods

Cost – Based Pricing Pricing Methods

Cost plus pricing: This is also called full cost or mark up pricing. Here the average cost normal capacity of output is ascertained and then a conventional margin of profit is added to the cost to arrive at the price. In other words, find out the product unit's total cost and add percentage of profit to arrive at the selling price.

Marginal cost pricing : In marginal cost pricing, selling price is fixed in such a way that it covers fully the variable or marginal cost and contributes towards recovery of fixed costs fully or partly, depending upon the market situations.

Competition – Oriented 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.

a. **Sealed bid pricing:** This method is more popular in tenders and contracts. Each

contracting firm quotes its price in a sealed cover called tender. All the tenders are

opened on a scheduled date and the person who quotes the lowest prices, other things remaining the same, is awarded the contract.

b. **Going rate pricing:** here the price charged by the firm is in tune with the price charged in the industry as a whole. In other words, the prevailing market price at a given point of time is the guiding factor.

Demand – Oriented Pricing

The higher the demand, the higher can be the price. Cost is not the consideration here. The key to pricing here is the value as perceived by the consumer. This is a relatively modern marketing concept.

a. **Price discrimination:** Price discrimination refer to the practice of charging different prices to customers for the same good. The firm uses its discretion to charge differently the different customer. It is also called differential pricing.
b. **Perceived value pricing:** perceived value pricing refers to where the price is fixed on the basis of the perception of the buyer of the value of the product.

Strategy – Based Pricing:

1. **Market skimming**: when the product is introduced for the first time in the market, the company follows this method. Under this method, the company fixes a very high price for the product. The main idea is to charge the customer maximum possible.
2. **Market penetration**: Here the price of the product is fixed so low that the company can increase its market share. the company attains profits with increasing volumes and increase in the market share.

Breakeven Analysis/ Cost-Volume-Profit Analysis

A business is said to break even when its total sales are equal to its total costs. It is a point of **No Profit No Loss.** Break even analysis is defined as analysis of costs and their possible impact on revenues and volume of the firm. Hence, it is also called the cost – volume- profit analysis. A firm is said to attain the BEP when its total revenue is equal to total cost.

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.

10. All the goods produced are sold. There is no closing stock.

Significance of BEA

- To ascertain the profit on a particular level of sales volume or a given capacity of production
- To calculate sales required to earn a particular desired level of profit.
- To compare the product lines, sales area, methods of sales for individual company
- To compare the efficiency of the different firms
- To decide whether to add a particular product to the existing product line or drop one from it
- To decide to "make or buy" a given component or spare part
- To decide what promotion mix will yield optimum sales
- To assess the impact of changes in fixed cost, variable cost or selling price on BEP and profits during a given period.

Limitations of BEA

- Break – even - point is based on fixed cost, variable cost and total revenue.
- A change in one variable is going to affect the BEP
- All cost cannot be classified into fixed and variable costs. We have semi-variable costs also
- In case of multi-product firm, a single chart cannot be of any use. Series of charts have to be made use of..
- It is based on fixed cost concept and hence holds good only in the short – run.
- Total cost and total revenue lines are not always straight as shown in the figure. The quantity and price discounts are the usual phenomena affecting the total revenue line.
- Where the business conditions are volatile, BEP cannot give stable results

Determination of Break Even Point

1. Fixed cost
2. Variable cost
3. Contribution
4. Margin of safety
5. Angle of incidence
6. Profit volume ratio

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.

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.

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 = Sales – Variable cost

Contribution = Fixed Cost + Profit.

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** $\frac{\text{Profit}}{\text{P. V. ratio}}$

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.

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.

Questions

1. Define production function, explain is equate and is cost curves.

2. Why does the law of diminishing returns operate? Explain with the help of a diagram. 3.Explain and illustrate Law of Returns to scale.

4. (a) Explain Cobb-Douglas Production function.

   (b) Internal and External Economies

5.. Explain the following with reference to production functions

(a) MRTS

(b) Isocosts

6. Explain Cost/Output relationship in the short run

7.What is a market? Explain, in brief, the different market structures.

8. Explain how a firm attains equilibrium in the short run and in the long run under conditions of perfect competition.

9. Define monopoly. How is price under monopoly determined?

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

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

12. Explain the various methods of strategy-based pricing.

13. Explain different Characteristics of Oligopoly?

14. A Company reported the following results for two 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.

15. 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/-

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.

Objective Questions

1. Conversion of inputs in to output is called as_____. ( )

(a) Sales (b) Income (c) Production (d) Expenditure

2. How many stages are there in 'Law of Variable Proportions'? ( )

(a) Five (b) Two (c) Three (d) Four

3. 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

4. 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

5. 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

6. _____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

7. 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

8. When different combinations of inputs yield the same level of output Known as _____. ( )

(a) Different Quants (b) Output differentiation (c) Isoquants (d) Production differentiation

9. 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

10. 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

11. 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

12. The cost of best alternative forgone is_____( )

(a) Outlay cost (b) Past cost (c) Opportunity cost (d) Future cost

13. 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

14. _____cost is the additional cost to produce an additional unit of output. ( )

(a) Incremental (b) Sunk (c) Marginal (d) Total

15. _____costs are the costs, which are varies with the level of output. ( )

(a) Fixed (b) Past (c) Variable (d) Historical

16. 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

17. 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

18. _____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

19. 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

20. 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

21. 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

22. 'Contribution" is the excess amount of Actual Sales over_____. ( )

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

UNIT-IV Financial Accounting

Accounting :

Accounting is the science of recording and classifying business transactions and events primarily of financial character, and the art of making significant, summaries, analysis and interpretations of those transaction and events, and communicating the results to persons who must make decisions or form judgment.

Accounting concepts and Conventions:

Concepts are the basic ideas, the theories on how and why certain categories of transactions should be treated in a particular manner.
Once the theories have been established and tested and proved to be acceptable, the task of the Conventions is to set out the limit of their applications.

Accounting Concepts :

1. **Business entity concept:** A business and its owner should be treated separately as far as their financial transactions are concerned.
2. **Money measurement concept:** Only business transactions that can be expressed in terms of money are recorded in accounting, though records of other types of transactions may be kept separately.
3. **Dual aspect concept:** For every credit, a corresponding debit is made. The recording of a transaction is complete only with this dual aspect.
4. **Going concern concept:** In accounting, a business is expected to continue for a fairly long time and carry out its commitments and obligations. This assumes that the business will not be forced to stop functioning and liquidate its assets at "fire-sale" prices.
5. **Cost concept:** The fixed assets of a business are recorded on the basis of their original

cost in the first year of accounting. Subsequently, these assets are recorded minus

depreciation. No rise or fall in market price is taken into account. The concept applies only to fixed assets.

6. **Accounting year concept:** Each business chooses a specific time period to complete a cycle of the accounting process—for example, monthly, quarterly, or annually—as per a fiscal or a calendar year.
7. **Matching concept:** This principle dictates that for every entry of revenue recorded in a given accounting period, an equal expense entry has to be recorded for correctly calculating profit or loss in a given period.
8. **Realisation concept:** According to this concept, profit is recognised only when it is earned. An advance or fee paid is not considered a profit until the goods or services have been delivered to the buyer.

Accounting Conventions

There are four main conventions in practice in accounting:

Conservatism is the convention by which, when two values of a transaction are available, the lower-value transaction is recorded. By this convention, profit should never be overestimated, and there should always be a provision for losses.
Consistency prescribes the use of the same accounting principles from one period of an accounting cycle to the next, so that the same standards are applied to calculate profit and loss.

Materiality means that all material facts should be recorded in accounting. Accountants should record important data and leave out insignificant information.

Full disclosure entails the revelation of all information, both favourable and detrimental to a business enterprise, and which are of material value to creditors and debtors.

Accounting Equation:

Accounting equation describes that the total value of assets of a business is always equal to its liabilities plus owner's equity. This equation is the foundation of modern double entry system of accounting being used by small proprietors to large multinational corporations. Other names used for accounting equation are balance sheet equation and fundamental or basic accounting equation.

Accounting equation is simply an expression of the relationship among assets, liabilities and owner's equity in a business. The general form of this equation is given below:

Assets = Liabilities + Owner's

Equity Rules for maintaining Books of Accounts

Personal Account: these are the accounts of natural persons such as ram account, gopal account. Artificial person such as udayltd, syndicate bank. And representative personal account.

Rule: "Debit --- The Receiver

Credit -- The Giver"

Real Accounts: accounts relating to properties or assets of a trader are known as real accounts. It includes tangible assests such as buildings, furniture,. Cash, etc and also intangible assets such as goodwill, trade marks, patent rights.

Rule: "Debit ---What comes in

Credit-- What goes out"

Nominal Accounts : account dealing with expenses, losses, gains and incomes are called nominal accounts, eg. Salaries, wages commission account etc.

Rule: "Debit --- All expenses and losses

Credit --All incomes and gains"

Journal

Journal means a daily record of business transactions. Journal being a book of original entry. The transaction is first written in the journal from which it is posted to the ledger. The transactions will be recorded as and when they occur and in the order in which they occur.

Date	Particular	LF	Debit	credit
	Cash a/c----------DR To ram a/c (narration)		20,000	 20,000

Where: ledger folio . in this column the pages numbers on which the various accounts appear in the ledger are entered.

Narration : an explanation of the entry in the particular column

Ledger

Ledger:

Ledger is a book in which various accounts such as personal, real and nominal account are opened. Every transaction is first recorded in the journal, and from it, transferred to the concerned account in the ledger. This process of transferring the transaction from the journal to the ledger is called posting.

Dr ledger a/c

Cr

Date	Particular	JF	Amount	Date	Particular	JF	Amount

Note:

Dr means debit side it is always start with TO, Cr means credit side it is always start with By

Balancing an account: after all transaction have been posted and the various accounts prepared they are balanced. The procedure for balancing ledger accounts is as follows.

1. Take the totals of the two sides of the account on a rough sheet.
2. Ascertain the difference between the totals of two sides . the difference is called "balance"
3. Enter the difference in the amount column of the side showing less total. If the credit side total is less , write in the particulars column on the credit side of the account , By balance c/d. similarly if the debit side is less , write on the debit side of the account To balance c/d.

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.

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.

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.)

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.

1. Trading account
2. Profit and loss account
3. Balance sheet.

Trading account

Trading account is a part of profit and loss account . trading account is prepared for ascertaining Gross profit or gross loss. The difference between the sales and the cost of the goods sold is gross profit. Cost of good sold can be ascertained by adding opening stock , purchases, direct expenses for purchase of goods and deduction there from closing stock and sales.

Proforma of Trading Account

Trading account of ---------- for the year ended 31 march ----

Particular	Amount	Particular	Amount
To opening stock	Xxxx	By Sales	
		xxxxx	Xxxx
To Purchase		Less; Sales return	
xxxx	Xxxx	xxxxx	
Less: purchase return			
xxxx			
To carriage inwards	Xxx	By closing stock	Xxxx
To wage	Xxxx		
To freight , duty clearing charges	Xxxx		
To fuel and power	Xxxx		
To coal, gas, and water	Xxxx		
To motive power	Xxxx		

To factory rent	Xxxx		
To manufacturing expenses	Xxxx		
To direct expenses	Xxxx		
To factory lighting	Xxxx		
To gross profit	Xxxx		
	Xxxxxxx		xxxxxxx

Profit and Loss Account

Profit and loss account is prepared to ascertain the net profit or net loss of the business for a particular period. All indirect expenses such as management and office expenses, financial expenses, selling and distribution expenses are taken on the debit side. Gross profit and other items of incomes such as interest received , discount received, etc. are taken on credit side. The different between two sides is either net profit or net loss which is transferred to capital 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.

Proforma of Profit and Loss Account

Profit and loss of ---------- for the year ended 31 march xxx

Particular	Amount	Particular	Amount
To Salaries		By gross profit	Xxx
xxx	Xxx		
Add : outstanding salaries			
xxx			
To Rent	Xxx	By Discount receive	Xxx
To Discount allowed	Xxx	By Interest receive	Xxx
To Office expenses	Xxx	By Commission receive	Xxx
To Rate and tax	Xxx		
To Lighting	Xxx		
To Printing and stationery	Xxx		
To Postage and telegrams	Xxx		
To Telephone charges	Xxx		
To Legal expenses	Xxx		
To Telephone charges	Xxx		
To Audit fee	Xxx		
To General expenses	Xxx		
To Advertisement	Xxx		
To Insurance	xxx		
To interest on capital	Xxx		
To deprecation on assets(	Xxx		
machinery , building , furniture,			

land.etc)			
To repair	Xxx		
To carriage outward	Xxx		
To written off bad debts	Xxx		
To travelling expenses	Xxx		
To interest on loan	Xxx		
To net profit	Xxx		
	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.

PROFORMA OF BALANCE SHEET

Balance sheet of Mr ----------for the year ending on 31 march xxxxx

Liabilities	Amount	Assets	Amount
Capital xxxx Add: interest on capital xxxx Net profit xxxx ------ Xxxx	Xxx	Plant and machinery Xxx Less: depreciation on plant machinery xxx Building xxx Less : depreciation on building xxx Land	Xxx Xxx Xxx

Less: drawings		xxx	
xxxx		Less ; depreciation on land	
Net loss		xxx	
xxxx			
Sundry creditor	xxx	Sundry debtor	
		xxx	Xxx
		Less : written of bad debts	
		xxx	
Bank overdraft	Xxx	Cash in hand	Xxx
Outstanding expenses	Xxxx	Cash at bank	Xxx
Reserves	Xxx	Investment	Xxx
Long term loans	Xxx	Bill receivable	Xxxx
Bill payable	Xxx	Prepaid expenses	Xxx
		Prepaid expenses	Xxx
		Vehicle	Xxx
		Closing stock	Xxx
	Xxxxx		xxxxx

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.

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.
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* :

First, it should be shown on debit side of the profit and loss account.
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.

Questions

1. Define Accounting. Desribe briefly Accounting Concepts and Accounting Conventions?

2. Explain various types of Accounts and their Rules with examples?

3. State the advantages of Double Entry system of Accounting?

4. Write short notes on

(a) Journal (b) Assets (c) Expenditure

5. Draw the proforma of Trial Balance?

6. What is Trial Balance? Why it is prepared?

7. Journalise 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. He bought a machine for Rs. 5,000 from Lakshman on account

iv. He paid to Lakshman Rs. 2,000

v. He sold goods for cash Rs.3,000

vi. He sold goods to A on account Rs. 4,000

vii. He paid to Shyam Rs.1,000

viii. He received amount from A Rs.2,000

8. In the books of Kishore, prepare Trading and profit and loss account for the year ended 30th June, 2003:

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.

9. 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.

Objective Questions

1. 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

2. In which Concept "Business is treated separate from the Proprietor? ( )

(a) Cost concept (b) Dual aspect concept (c) Business entity concept (d) Matching concept

3. 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

4. "Out standing wages" is treated as_____. ( )

(a) Asset (b) Expense (c) Liability (d) Income

5. How many types of accounts are maintained to record all types of business transactions? ( )

(a) Five (b) four (c) Three (d) Two

6. Which connects the link between Journal and Trial Balance? ( )

(a) Trading Account (b) Profit & Loss account (c) Ledger (d) Balance sheet

7. Which assets can be converted into cash in short period? ( )

(a) Fixed Assets (b) Intangible Assets (c) Current Assets (d) Fictious Assets

8. "Bank over draft" is a_____. ( )

(a) Asset (b) Expense (c) Liability (d) Income

9. Profit and Loss account is prepared to find out the business____. ( )

(a) Gross result (b) Financial position (c) Net result (d) Liquidity position

10.The statement of "Debit and credit balances of Ledger accounts" is called as_____( )

(a) Journal (b) Ledger (c) Trial balance (d) Balance sheet

11. _____is called as 'Book of Original Entry'. ( )

(a) Ledger (b) Trial Balance (c) Journal (d) Trading account

12. Debit what comes in; Credit what goes out is_____account principle? ( )

(a) Nominal (b) Personal (c) Real (d) None

13. The process of entering transactions in to Ledge accounts known as . ( )

(a) Journal entry (b) First entry (c) Posting (d) None

14. Debit Expenses and Losses; Credit Incomes and Gains is_____account Principle ( )

(a) Personal (b) Real (c) Nominal (d) None

15. "Prepaid Insurance Premium" is treated as_____. ( )

(a) Gain (b) Income (c) Asset (d) Liability

Unit -V Financial Analysis through Ratios

Concept of Ratio Analysis, Liquidity Ratios, Turnover Ratios, Profitability Ratios, Proprietary Ratios, Solvency, Leverage Ratios (simple problems).

Introduction to Fund Flow and Cash Flow Analysis (simple problems).

Ratio Analysis

Ratio analysis is used to evaluate relationships among financial statement items. The ratios are used to identify trends over time for one company or to compare two or more companies at one point in time.

Types of Ratios

Liquidity ratios measure the ability of a company to repay its short-term debts and meet unexpected cash needs.

Current ratio: The current ratio is also called the working capital ratio, as working capital is the difference between current assets and current liabilities. This ratio measures the ability of a company to pay its current obligations using current assets. The current ratio is calculated by dividing current assets by current liabilities

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

This ratio indicates the company has more current assets than current liabilities

Acid-test ratio. The **acid-test ratio** is also called the **quick ratio**. **Quick assets** are defined as cash, marketable (or short-term) securities, and accounts receivable and notes receivable, net of the allowances for doubtful accounts. These assets are considered to be very liquid (easy to obtain cash from the assets) and therefore, available for immediate use to pay obligations. The acid-test ratio is calculated by dividing quick assets by current liabilities.

$$\text{Acid-Test Ratio} = \frac{\text{Quick Assets}}{\text{Current Liabilities}}$$

The traditional rule of thumb for this ratio has been 1:1. Anything below this level requires further analysis of receivables to understand how often the company turns them into cash

Inventory Turnover Ratio: The **inventory turnover ratio** measures the number of times the company sells its inventory during the period.

$$\text{Inventory Turnover Ratio} = \frac{\text{Cost of Goods Sold}}{\text{Average Inventory}}$$

Profitability ratios

Profitability ratios measure a company's operating efficiency, including its ability to generate income and therefore, cash flow.

Earnings per share. Earnings per share (EPS) represents the net income earned for each share of outstanding common stock. In a simple capital structure, it is calculated by dividing net income by the number of weighted average common shares outstanding.

$$\text{Earnings Per Share} = \frac{\text{Net Income}}{\text{Weighted Average Common Shares Outstanding}}$$

Price-earnings ratio. The **price-earnings ratio (P/E)** is quoted in the financial press daily. It represents the investors' expectations for the stock. A P/E ratio greater than 15 has historically been considered high.

$$\text{Price-Earnings ratio} = \frac{\text{Market price per common share}}{\text{Earnings per share}}$$

Solvency Ratios

Solvency ratios are used to measure long-term risk and are of interest to long-term creditors and stockholders.

Debt to total assets ratio. The **debt to total assets ratio** calculates the percent of assets provided by creditors. It is calculated by dividing total debt by total assets. Total debt is the same as total liabilities.

$$\text{Debt to total assets ratio} = \frac{\text{Total debt}}{\text{Total assets}}$$

Introduction to Funds Flow and Cash Flow Analysis

Funds Flow Analysis

One of the most fundamental objectives of business is to make a profit. Long run survival requires that the business must be able to deal with any liquidity problems which arise in the short term.
Along with the information about the assets and liabilities as well as the profit and loss, it is equally important to know what funds became available during the accounting year and how such funds were applied. This information may be obtained by preparing a statement of source and application of funds. This statement demonstrates the movement of funds into and out of the business during the course during the accounting period.

Concept of "Fund": The term 'fund' has been defined and interpreted differently by different experts. Broadly the term 'fund' refers to all the financial resources of the company. On the other extreme, fund has been understood as 'cash' only. According to the International Accounting Standard No. 7, the term generally refers to cash, to working capital and to cash and cash equivalents (long term financial sources).

Concept of Fund Flow:

The term "Flow of Funds" refers to changes or movement of funds or changes in working capital in the normal course of business transactions.. In other words, any increase or decrease in working capital when the transactions take place is called as "Flow of Funds." If the components of working capital results in increase of the fund, it is known as Inflow of Fund or Sources of Fund. Similarly, if the components of working capital effects in decreasing the financial position it is treated as Outflow of Fund.

Specimen of Funds Flow Statement

T form

Fund Flow Statement for the year ended.....

Sources of Funds	Rs.	Application of Funds	Rs.
Trading Profit or Fund from Operations (1)	* * *	Trading Loss or Fund lost in Operations(1)	* * *
Issue of Share Capital	* * *	Redemption of Pref. Share	* * *
Issue of Debentures	* * *	Redemption of Debentures	* * *
Raising of Long-term Loans	* * *	Repayment of Long-term Loans	* * *
Receipts from Partly Paid-up shares Called-up	* * *	Purchase of Fixed Assets	* * *
Sale of Fixed Assets/ Investments	* * *	Purchase of Long-term Investment	* * *
Non-trading Receipts		Payment of Dividend	* * *
		Payment of Tax	* * *

Analysis of Cash Flow

A cash flow statement is a financial report that describes the sources of a company's cash and how that cash was spent over a specified time period. It does not include non-cash items. The cash flow statement is a cash basis report on three types of financial activities: operating activities, investing activities, and financing activities. Non-cash activities are usually reported in footnotes. This makes it useful for determining the short-term viability of a company, particularly its ability to pay bills. Because the management of cash flow is so crucial for businesses and small businesses in particular, most analysts recommend that an entrepreneur should study a cash flow statement at least every quarter. The cash flow statement is similar to the income statement in that it records a company's performance over a specified period of time. The difference between the two is that the income statement also takes into account some non-cash accounting items such as depreciation.

Classification of Cash Flow Transactions:

Cash flows result from operating, financing, and investing activities. You must be able to distinguish among these types of cash flows. These activities are explained as follows.

- **Operating activities:** Cash flows from operating activities include all cash flow transactions that are not classified as investing or financing activities. Operating activities are related to the primary operations of the company in generating revenues and incurring related expenses.
- **Investing activities:** In general, investing activities are transactions for purchasing and selling capital assets and other productive assets. Capital assets are acquired in order to increase productive capacity. Cash needed for this expansion may come from the sale of existing assets that are less productive.
- **Financing activities:** Financing activities affect a business' capital structure, its debt and equity. Financing activities include the use of cash to pay dividends to shareholders, the borrowing or payment of debt, and the issue or repurchase of shares.

Format for Cash Flow Statement

Cash flows from operating activities		
(List of individual items)	XX	
Net cash provided (used) by operating activities		XXX
Cash flows from investing activities		
(List of individual inflows and outflows)	XX	
Net cash provided (used) by investing activities		XXX
Cash flows from financing activities		
(List of individual inflows and outflows)	XX	
Net cash provided (used) by financing activities		XXX
Net increase (decrease) in cash		XXX
Cash at beginning of period		XXX
Cash at end of period		XXX
Noncash investing and financing activities		
(List of individual noncash transactions)		XXX

Questions

1. Define Ratio and State its advantages?
2. Discuss briefly various types of Ratios?
3. What do you mean by the term Fund? Explain the significance of Funds Flow Analysis?
4. Draw the format of Cash Flow Statement?
5. 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 .
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.
6. 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.
7. Distinguish Funds Flow with Cash Flow Statement?

Objective Questions

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

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) Profi