MALLA REDDY INSTITUTE OF TECHNOLOGY & SCIENCE
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Permanently Affiliated to JNTUH & Approved by AICTE, New Delhi
NBA Accredited Institution, An ISO 9001:2015 Certified, Approved by UK Accreditation Centre
Granted Status of 2(f) & 12(b) under UGC Act. 1956, Govt. of India.

BUSINESS ECONOMICS AND FINANCIAL ANALYSIS

COURSE FILE

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING
(2022-2023)

Faculty In-Charge
Mr. A PAPARAO

HOD-ECE
Dr.R.Prabhakar

COURSE FILE

SUBJECT: BUSINESS ECONOMICS AND FINANCIAL ANALYSIS

ACADEMIC YEAR: 2022-2023.

REGULATION: R18

NAME OF THE FACULTY: Mr. A PAPARAO

DEPARTMENT: H&S/ECE

YEAR&SECTION:IIIECE-ABC

SUBJECT CODE: SM504MS

INDEX

COURSE FILE

1. PEO'S, PO'S

PROGRAM EDUCATIONAL OBJECTIVES:

PEO1:
To excel in different fields of electronics and communication as well as in multidisciplinary areas. This can lead to a new era in developing a good electronic product.

PEO2:
To increase the ability and confidence among the students to solve any problem in their profession by applying mathematical, scientific and engineering methods in a better and efficient way.

PEO3:
To provide a good academic environment to the students which can lead to excellence, and stress upon the importance of teamwork and good leadership qualities, written ethical codes and guide lines for lifelong learning needed for a successful professional career.

PEO4: To provide student with a solid foundation to students in all areas like mathematics, science and engineering fundamentals required to solve engineering problems, and also to pursue higher studies.

PEO5: To expose the student to the state of art technology so that the student would be in position to take up any assignment after his graduation.

PROGRAM OUTCOMES

Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

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 the limitations.

The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PROGRAM SPECIFIC OUTCOMES:

PSO1: The ability to absorb and apply fundamental knowledge of core Electronics and Communication Engineering subjects in the analysis, design, and development of various types of integrated electronic systems as well as to interpret and synthesize the experimental data leading to valid conclusions.

PSO2: Competence in using electronic modern IT tools (both software and hardware) for the design and analysis of complex electronic systems in furtherance to research activities.

PSO3: Excellent adaptability to changing work environment, good interpersonal skills as a leader in team in appreciation of professional ethics and societal responsibilities.

2. Syllabus Copy

SM504MS: BUSINESS ECONOMICS AND FINANCIAL ANALYSIS

B.TECH III Year I Sem.	**L**	**T**	**P**	**C**
	3	0	0	3

Prerequisites: None

Course Objective: To learn the basic Business types, impact of the Economy on Business and Firms specific to analyze the Business from the Financial Perspective.

Course Outcome: The students will understand the various Forms of Business and the impact of economic variables on the Business. The Demand, Supply, Production, Cost, Market Structure, Pricing aspects are learnt. The Students can study the firm's financial position by analysing the Financial Statements of a Company.

UNIT – I

Introduction to Business and Economics:

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 Concept and Importance of National Income, Inflation, Money Supply in Inflation, Business Cycle, Features and Phases of Business cycles Nature and Scope of Business Economics, Role of Business Economics Multidisciplinary 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, Monopolistic Competition.

Pricing: Types of Pricing, Product Life Cycle based Pricing, Break Even 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, Preparation of Final Accounts.

UNIT - V

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

TEXT BOOKS:

1. D.D. Chaturvedi, S.L. Gupta, Business Economics - Theory and Applications, InternationalBook House Pvt. Ltd. 2013.
2. Dhanesh K Khatri, Financial Accounting, Tata McGraw Hill, 2011.
3. Geethika Ghosh, Piyali Gosh, Purba Roy Choudhury, Managerial Economics, 2e, TataMcGraw Hill Education Pvt. Ltd. 2012.

REFERENCES:

1. Paresh Shah, Financial Accounting for Management 2e, Oxford Press, 2015.
2. S.N. Maheshwari, Sunil K Maheshwari, Sharad K Maheshwari, Financial Accounting, 5e,Vikas Publications, 2013.

3. Class Time Table & Individual Time Table

MALLA REDDY INSTITUTE OF TECHNOLOGY & SCIENCE
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Class: III/IV B. Tech – I Semester
Branch: ECE-A

LECTURE HALL – B1 G07
W.E. F -09/09/2022

ELECTRONICS AND COMMUNICATION ENGINEERING DEPARTMENT

Day/ Time	9:15 am to 10:15 am	10:15 am to 11:15 am	11:15 am to 12:15 pm	12:15 pm to 1:15 pm	1:15 pm to 2:00 pm	2:00 pm to 3:00 pm	3:00 pm to 4:00 pm
Monday	COOS	DCN/MPMC LAB			LUNCH	MPMC	SPORTS
Tuesday	CS	DCN	BEFA	SEMINAR		COOS	CYBER SECURITY
Wednesday	BEFA	CS	ACS LAB			DCN	MPMC
Thursday	DCN	MPMC/DCN LAB				MPMC	COOS
Friday	DCN	COOS	BEFA	TUTORIAL		CS	LIBRARY
Saturday	MPMC	BEFA	CS	COOS		DCN	IPR

Business Economics and Financial Analysis	:	Mr. A. Papa Rao
Control Systems	:	Mr. K. Y. Srinivas
Data Communications and Networks	:	Mr. B. Sampath (C.I)
Microprocessors and Microcontrollers	:	Mr. J. I. Chakravarthy
Computer Organization and Operation Systems	:	Dr. S. Kannan
Advanced Communication Skills Lab	:	Ms. A. Likitha
Data Communications and Networks Lab	:	Mr. B. Sampath/ Ms. Suchitra Rana/ Mr. A. Suresh
Microprocessors and Microcontrollers Lab	:	Mr. J. I. Chakravarthy/ Mr. G. Naveen/ Mrs. B. Sharadha
Intellectual Property Rights	:	Dr. R. Narasiah
Cybersecurity	:	Mrs. B. Sharadha
Seminar	:	Mr. B. Sampath

HOD, ECE

PRINCIPAL

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Class: III/IV B. Tech – I Semester
Branch: ECE-B

LECTURE HALL – B1 G12
W.E. F -09/09/2022

ELECTRONICS AND COMMUNICATION ENGINEERING DEPARTMENT

Day/ Time	9:15 am to 10:15 am	10:15 am to 11:15 am	11:15 am to 12:15 pm	12:15 pm to 1:15 pm	1:15 pm to 2:00 pm	2:00 pm to 3:00 pm	3:00 pm to 4:00 pm
Monday	CS	BEFA	COOS	SEMINAR	LUNCH	DCN	MPMC
Tuesday	COOS	DCN/MPMC LAB				MPMC	SPORTS
Wednesday	CS	COOS	BEFA	LIBRARY		CS	DCN
Thursday	DCN	BEFA	CS	COOS		TUTORIAL	MPMC
Friday	DCN	MPMC/DCN LAB				MPMC	CYBER SECURITY
Saturday	BEFA	COOS	ACS LAB			DCN	IPR

Business Economics and Financial Analysis	:	Mr. A. Papa Rao
Control Systems	:	Mr. N. Ramesh
Data Communications and Networks	:	Ms. Suchitra Rana (C.I)
Microprocessors and Microcontrollers	:	Mr. J. I. Chakravarthy
Computer Organization and Operation Systems	:	Dr. S. Kannan
Advanced Communication Skills Lab	:	Ms. A. Likitha
Data Communications and Networks Lab	:	Ms. Suchitra Rana/ Mr. A. Suresh/ Mr. B. Sampath
Microprocessors and Microcontrollers Lab	:	Mr. J. I. Chakravarthy/ Mr. G. Naveen/ Mrs. B. Sharadha
Intellectual Property Rights	:	Dr. R. Narasiah
Cybersecurity	:	Mrs. B. Sharadha
Seminar	:	Ms. Suchitra Rana

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Class: III/IV B. Tech – I Semester
Branch: ECE-C

LECTURE HALL – B1 G04
W.E. F -09/09/2022

ELECTRONICS AND COMMUNICATION ENGINEERING DEPARTMENT

Day/ Time	9:15 am to 10:15 am	10:15 am to 11:15 am	11:15 am to 12:15 pm	12:15 pm to 1:15 pm	1:15 pm to 2:00 pm	2:00 pm to 3:00 pm	3:00 pm to 4:00 pm
Monday	DCN	CS	ACS LAB		L U N C H	COOS	LIBRARY
Tuesday	BEFA	CS	COOS	TUTORIAL		BEFA	MPMC
Wednesday	COOS	DCN/MPMC LAB				MPMC	SPORTS
Thursday	CS	COOS	SEMINAR	BEFA		DCN	CYBER SECURITY
Friday	BEFA	CS	DCN	COOS		DCN	MPMC
Saturday	DCN	MPMC/DCN LAB				MPMC	IPR

Business Economics and Financial Analysis	:	Mr. A. Papa Rao
Control Systems	:	Mr. N. Ramesh (C.I)
Data Communications and Networks	:	Mr. B. Sampath
Microprocessors and Microcontrollers	:	Mr. J. I. Chakravarthy
Computer Organization and Operation Systems	:	Dr. S. Kannan
Advanced Communication Skills Lab	:	Ms. A. Likitha
Data Communications and Networks Lab	:	Ms. Suchitra Rana/ Mr. B. Sampath/ Mr. A. Suresh/
Microprocessors and Microcontrollers Lab	:	Mr. J. I. Chakravarthy/ Mr. G. Naveen/ Mrs. B. Sharadha
Intellectual Property Rights	:	Dr. R. Narasiah
Cybersecurity	:	Mrs. B. Sharadha
Seminar	:	Mr. N. Ramesh

HOD, ECE

PRINCIPAL

Individual Time Table

	9.15-10.15	**10.15-11.15**	**11.15-12.15**	**12.15-1.15**	**1.15-2.00**	**2.00-3.00**	**3.00-4.00**
MON		BEFA (B)			**LUNCH**		
TUES	BEFA (C)		BEFA (A)			BEFA (C)	
WED	BEFA (A)		BEFA (B)				
THUR		BEFA (B)		BEFA (C)			
FRI	BEFA (C)		BEFA (A)				
SAT	BEFA (B)	BEFA (A)					

4. Students Roll List

MALLA REDDY INSTITUTE OF TECHNOLOGY & SCIENCE		
ELECTRONICS AND COMMUNICATION ENGINEERING		
Class: **III Year- I Sem**		**Branch: B.Tech-ECE-A**
Batch: **2020-2024**		**A.Y: 2022-2023**
S.NO	**Roll Number**	**Name of the Student**
1	20S11A0401	ANUNYA PARANKUSHAM
2	20S11A0402	ABIJITH REDDY ANNEM
3	20S11A0403	AKHIL NAKKIRATHA
4	20S11A0404	ANUSHA URADI
5	20S11A0405	ARUN KANDULA
6	20S11A0406	ARUN SUJITH BABU KUNAPPA REDDY
7	20S11A0407	BALAJI T
8	20S11A0408	CHARISHMA ADABALA
9	20S11A0409	DEEKSHITH REDDY M
10	20S11A0410	DHANANJAI GHAWALKAR
11	20S11A0411	DHANUSHA PINNEBOINA
12	20S11A0412	GOPI CHAND REDDY AVULA
13	20S11A0413	HARSHITH USHAKOLA
14	20S11A0414	HASEENA BEGUM
15	20S11A0415	KEERTHANA CHINTALABAI
16	20S11A0416	KIRAN KATHULA
17	20S11A0417	KOTESHWARI VEMIREDDY
18	20S11A0418	PRANIKA RAMREDDY GARI
19	20S11A0419	PREMANATH RAO MAHENDRAKAR
20	20S11A0420	PUJITHA PATLURI
21	20S11A0421	RAKESH REDDY TADA
22	20S11A0422	RISHIVARDHAN REDDY ARMOOR
23	20S11A0423	SAI BHARGAV SASANALA
24	20S11A0424	SAI CHARAN ALLAM
25	20S11A0425	SAI CHARAN REDDY JOGANNAGARI
26	20S11A0426	SAI VAMSI THOTA

27	20S11A0427	SALONI KUMARI
28	20S11A0428	SAMYUKTHA MEDHARAMETLA
29	20S11A0429	SANOJ KUMAR VARMA
30	20S11A0430	SATYAM REDDY BISU
31	20S11A0431	SHASHANK REDDY P
32	20S11A0432	SHASHANK W.M.
33	20S11A0433	SHIVA KUMAR PURAMVAR
34	20S11A0434	SHIVA SATHVIKA
35	20S11A0435	SINDHU ALIPEDDY
36	20S11A0436	SPANDHANA GARLAPATI
37	20S11A0437	SRI VALLABHA MADIREDDY
38	20S11A0438	SRI VIDYA DEVASANI
39	20S11A0439	SRIKANTH REDDY BANDI
40	20S11A0440	SRIMAN PRASAD JAGATHE
41	20S11A0441	SRINIVAS BALAJI VARMA GORINTA
42	20S11A0442	SRINIVAS MACHARLA
43	20S11A0443	SUSHMA ALLU
44	20S11A0444	TIRUMALESH NIDIGONDA
45	20S11A0446	VARUN KONDABOINA
46	20S11A0447	VENKAT TEJA SYAMA
47	20S11A0448	VENKATESH LAKAVATH
48	20S11A0449	VINAY REDDY VANGALA
49	20S11A0450	YASHWANTH REDDY VADDEPALLY
50	20S11A0451	ABHINAV REDDY ERUPAKA
51	20S11A0452	AKSHITHA JADHAV T
52	20S11A0453	ANGALI MOGILI
53	20S11A0454	ASRITH VEMULA
54	20S11A0455	BHARATH KARINGULA
55	20S11A0456	BHARGAVI NAREDDY
56	20S11A0457	CHANDRA SHEKAR REDDY MEKHA
57	20S11A0458	DEEPIKA SANAMPUDI
58	20S11A0459	DIIXITHA S
59	20S11A0460	DINESH SAI BOLAGANI

60	20N61A0443	M YEDUKONDALU

MALLA REDDY INSTITUTE OF TECHNOLOGY & SCIENCE		
ELECTRONICS AND COMMUNICATION ENGINEERING		
Class: **III Year- I Sem**		**Branch: B.Tech-ECE-B**
Batch: **2020-2024**		**A.Y: 2022-2023**
1	20S11A0461	ESHWAR KAITHOJU
2	20S11A0462	GANESH BHARATHA
3	20S11A0463	GOWRAV NAGULA
4	20S11A0464	HARINI YERABATI
5	20S11A0465	INDIRA SATYA SRI BANDI
6	20S11A0466	KALYAN REDDY ANNEPALLI
7	20S11A0467	KANTA JADAV
8	20S11A0468	LALITH ASHISH REDDY MARRAM
9	20S11A0470	MANIDEEP BILLA
10	20S11A0471	MANIKANTA BADDA
11	20S11A0472	MANOJ KUMAR BODA
12	20S11A0473	NAGA GANESH PATTHIPAKA
13	20S11A0474	NANDINI NEELA
14	20S11A0475	NARASIMHA DHARMAPURI
15	20S11A0476	NAVEEN KUMAR NALLA
16	20S11A0477	NITHIN CHARY VADAKAPURAM
17	20S11A0478	PAVAN KUMAR CHUNCHU
18	20S11A0479	PAVANI ENGE
19	20S11A0480	PREMKUMAR KANDIPALLI
20	20S11A0481	RAGHAVENDRA ACHAMPETA
21	20S11A0482	RAKESH MODEM
22	20S11A0483	RAVITEJA SANKURI
23	20S11A0484	SAHITHI ALUGALA
24	20S11A0485	SAI NARASIMHA PRANAV P
25	20S11A0486	SAI TEJA GOUD JUVVAGANI

26	20S11A0487	SAIRAM TIKKALA
27	20S11A0488	SAKETH KAMATHAM
28	20S11A0489	SAMPATH KUMAR S
29	20S11A0490	SANTHOSH ADICHARLA
30	20S11A0491	SRAVANI T
31	20S11A0492	SRIKANTH LAKAVATH
32	20S11A0493	SRIKAR REDDY KARADA
33	20S11A0494	SRINIVAS PEDDI
34	20S11A0495	VAMSHI KRISHNA KOBBAJI
35	20S11A0496	VENKATESH THOTA
36	20S11A0497	VINAY KUSUMA
37	20S11A0498	VINAY TANNIRU
38	20S11A0499	VINEELA KAVALI
39	20S11A04A0	YASHASWINI BATCHU
40	20S11A04A1	ABHISHEK TALARI
41	20S11A04A2	AKASH RAO SAINENI
42	20S11A04A3	AKHIL S
43	20S11A04A4	ARAVIND INDKURI
44	20S11A04A5	BABU ALAKUNTLA
45	20S11A04A6	BANU KARTHIKEYA CH
46	20S11A04A7	DINESH KUMAR NENAUATH
47	20S11A04A8	GANESH BALAPOGU
48	20S11A04A9	GOVID KATARAVATH
49	20S11A04B0	HARSHITHA GANDHAM
50	20S11A04B1	HEMANTHSAI KORRAPATI
51	20S11A04B2	KEERTHIKA KOPPULA
52	20S11A04B3	MADHAVA BARADI
53	20S11A04B4	MD HAFEEZ
54	20S11A04B5	MOHAMMED FARAZ BABA
55	20S11A04B6	NAGA SAI HARIKA THOGARUCHITI
56	20S11A04B7	NAVEEN UDUTHA
57	20S11A04B8	NIKHIL A
58	20S11A04B9	NIKHIL REDDY MARAPELLI
59	20S11A04C0	NITHIN TEJA K

60	21M95A0405	JAKKA AKHILESH

MALLA REDDY INSTITUTE OF TECHNOLOGY & SCIENCE		
ELECTRONICS AND COMMUNICATION ENGINEERING		
Class: **III Year- I Sem**		**Branch: B.Tech-ECE-C**
Batch: **2020-2024**		**A.Y: 2022-2023**
1	20S11A04C1	PAVAN KUMAR POTHULA
2	20S11A04C2	PRANAY DASARAPU
3	20S11A04C3	PRASAD BADHAVATH
4	20S11A04C4	PRAVALLIKA ALLAM
5	20S11A04C5	RAHMATH PATHAN
6	20S11A04C6	RAMAN UGILE
7	20S11A04C7	ROHITH MAMIDIPELLY
8	20S11A04C8	ROHITH VARDHAN GODA
9	20S11A04C9	SAI DINESH A
10	20S11A04D0	SAI KIRAN AMBATI
11	20S11A04D1	SAI KIRAN MASURI
12	20S11A04D2	SANATH REDDY V
13	20S11A04D3	SANDHYA RANI GANTA
14	20S11A04D4	SATHVIKA DEVUNI
15	20S11A04D5	SHAIK ASHIK
16	20S11A04D6	SHIVA CHARAN VELPULA
17	20S11A04D7	SIDDHU GUGULOTH
18	20S11A04D8	THARUN AMMULA
19	20S11A04D9	THARUN BHAIRAGONI
20	20S11A04E0	THARUN TEJ BANOTH
21	20S11A04E1	VAMSHI BANOTHU
22	20S11A04E2	VAMSI KRISHNA MUDEL
23	20S11A04E3	VIJAY SIMHA REDDY GUNNAM
24	20S11A04E4	VINAY TADAPAKALA
25	20S11A04E5	YAGNITA MALAROUTHU
26	20S11A04E6	SATWIK V
27	20S11A04E7	ARAPALLY RAJU
28	20S11A04E8	THADA SANTHOSH REDDY
29	20S11A04E9	MYAKALA SHARATH KUMAR

30	20S11A04F0	GUNDLAPALLY SAI AKHIL
31	20S11A04F1	KANDULA BHARGAVI
32	21S15A0401	ADARSH SAVILLA
33	21S15A0402	AJAY JERIPOTHULA
34	21S15A0403	AKHIL CHINTHA
35	21S15A0404	ARAVIND REDDY PABBATHI
36	21S15A0405	ARUN KATTA
37	21S15A0406	BHANU KARNE
38	21S15A0407	BHARATH GADE
39	21S15A0408	BHAVANA A
40	21S15A0409	DIVYA SRI SHAKKARI
41	21S15A0410	GANESH BANOTH
42	21S15A0411	HEMALATHA BURADA
43	21S15A0412	HEMANTH SAI KRISHNA VUNGARALA
44	21S15A0413	JUGAL RAJ ANKAM
45	21S15A0414	MANIMALA PADALA
46	21S15A0415	MOHAMMAD ANWAR
47	21S15A0416	NAGARAJU BODDU
48	21S15A0417	NAVEENA M
49	21S15A0418	NITHISH KONINTI
50	21S15A0419	PARVATHI
51	21S15A0420	RAJASHEKAR KUNUSOTHU
52	21S15A0421	SAI KRISHNA VADIYALA
53	21S15A0422	SAISHEKAR BUKKA
54	21S15A0423	SANDHYA SHIVARATHRI
55	21S15A0424	SANTHOSHINI MADIPELLI
56	21S15A0425	SHASHI KIRAN REDDY MALLEPALLY
57	21S15A0426	SHIVA KRISHNA SAGAR MARKU
58	21S15A0427	SHIVANI A
59	21S15A0428	SIVAKUMAR K
60	21S15A0429	SRUJALA AYYANKI
61	21S15A0430	SUCHITHRA MOLUGURI
62	21S15A0431	THARUN KUMAR GANAPA
63	21S15A0432	VIJAY BABU K

64	21S15A0433	VIJAY DHANDU
65	21S15A0434	VIKRANTH KUMAR SHIVARATHRI
66	19S11A04B2	UMA MAHESH MITTAPALLY

5.Lesson Plan

Name of the Faculty: Mr. A PAPARAO Academic Year: 2022-2023
Course Number : SM504MS Course Name : BUSINESS ECONOMICS AND FINANCIAL ANALYSIS
Program : B.Tech Branch : ECE
Year/Sem : III-I Section : A,B, C

Unit No.	Lesson No.	No of periods per unit	No. of Periods	Topic/Sub Topic
I	1	15	1	**UNIT- I** Introduction to Business and Economics
	1.1		1	Structure of Business Firm
	1.2		1	Theory of Firm
	1.3		1	Types of Business Entities
	1.4		1	Limited Liability Companies
	1.5		1	Sources of Capital for a Company
	1.6		1	Non-Conventional Sources of Finance
	1.7		1	Significance of Economics
	1.8		1	Micro and Macro Economic Concepts
	1.9		1	Concepts and Importance of National Income
	1.10		1	Inflation
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	1.12		1	Business Cycle
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	5.5		1	Solvency ratios
	5.6		1	Leverage ratios
	5.7		2	Ratio analysis and analysis

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UNIT WISE LECTURE NOTES

a) Notes of Units

UNIT - I

INTRODUCTION

Human beings are continuously engaged in some activity or other in order to satisfy their unlimited wants. Every day we come across the word 'business' or 'businessman' directly or indirectly. Business has become essential part of modern world.

Business is an economic activity, which is related with continuous and regular production and distribution of goods and services for satisfying human wants.

All of us need food, clothing and shelter. We also have many other household requirements to be satisfied in our daily lives. We met these requirements from the shopkeeper. The shopkeeper gets from wholesaler. The wholesaler gets from manufacturers. The shopkeeper, the wholesaler, the manufacturer are doing business and therefore they are called as Businessman.

DEFINITIONS

Stephenson defines business as, "The regular production or purchase and sale of goods undertaken with an objective of earning profit and acquiring wealth through the satisfaction of human wants."

Dicksee defines business as "a form of activity conducted with an objective of earning profits for the benefit of those on whose behalf the activity is conducted."

Lewis Henry defines business as, "Human activity directed towards producing or acquiring wealth through buying and selling of goods."

Thus, the term business means continuous production and distribution of goods and services with the aim of earning profits under uncertain market conditions.

CHARACTERISTICS

1. **Exchange of goods and services**

All business activities are directly or indirectly concerned with the exchange of goods or services for money or money's worth.

2. Deals in numerous transactions

In business, the exchange of goods and services is a regular feature. A businessman regularly deals in a number of transactions and not just one or twotransactions.

3. Profit is the main Objective

The business is carried on with the intention of earning a profit. The profit is a reward for the services of a businessman.

4. Business skills for economic success

Anyone cannot run a business. To be a good businessman, one needs to have good business qualities and skills. A businessman needs experience and skill to run a business.

5. Risks and Uncertainties

Business is subject to risks and uncertainties. Some risks, such as risks of loss due to fire and theft can be insured. There are also uncertainties, such as loss due to change in demand or fall in price cannot be insured and must be borne bythe businessman.

In business there has to be dealings in goods and service.Goods may be divided into

following two categories :-

1. **Consumer goods** : Goods which are used by final consumer for consumption are called consumer goods e.g. T.V., Soaps, etc.
2. **Producer goods** : Goods used by producer for further production are called producers goods e.g. Machinery, equipments, etc. Services areintangible but can be exchanged for value like providing transport, warehousing and insurance services, etc.

6. To Satisfy human wants

The businessman also desires to satisfy human wants through conduct of business. By producing and supplying various commodities, businessmen try to promote consumer's satisfaction.

7. Social obligations

Modern business is service oriented. Modern businessmen are conscious of their social responsibility. Today's business is service-oriented rather than profit-oriented.

STRUCTUREOFBUSINESSFIRM

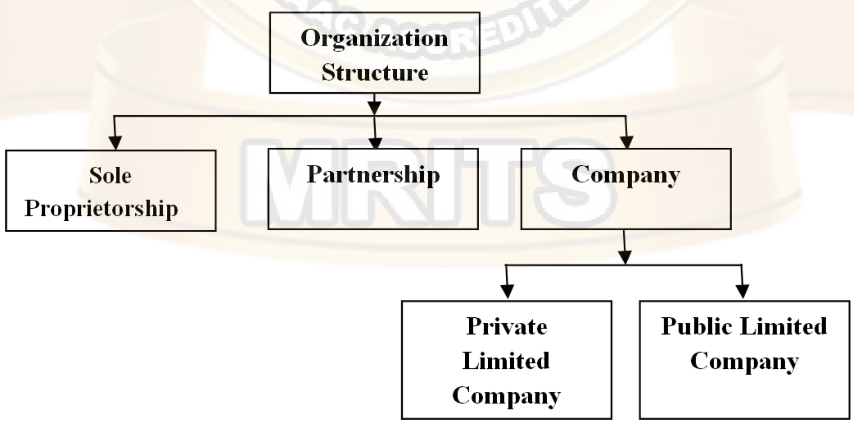
A business firm is an organization that uses resources to produce goods and services that are sold to consumers, other firms, or the government. Most businesses exist because a group of people working together can be more effective than a group of people working individually.

Firms are grouped into three types: sole proprietorships, partnerships, andcompanies.

sole proprietorship is a business that is owned by one individual. This owner makes all the business decisions, receives all the profits or losses of the firm, and is legally responsible for the debts of the firm.

A type of business organization in which two or more individuals pool money, skills, and other resources, and share profit and loss in accordance with terms of the partnership agreement. In absence of such agreement, a partnership is assumed to exit where the participants in an enterprise agree to share the associated risks and rewards proportionately.

A company is a legal entity, allowed by legislation, which permits a group of people, as shareholders, to apply to the government for an independent organization to be created, which can then focus on pursuing set objectives, and empowered with legal rights which are usually only reserved for individuals, suchas to sue and be sued, own property, hire employees or loan and borrow money.



THEORY OF FIRM

The following are the various theories of the firm.

1. Profit Maximization Theory

Profit maximization is one of the most common and widely accepted objectives of a firm. According to the profit maximization theory, the main aim of the firmis to produce large amount of profits. Profit is considered as the internal source of funds and the market value of the firm also rely mainly on the profits earned by the firm. in order to survive in the market, it is very essential for the firms to earn profits. Profits are obtained by deducting total revenue from the total cost i.e.,

Profit = Total revenue – total cost

2. Baumol‟s Theory of Sales Revenue Maximization

According to Baumol, maximization of sales revenue is the main objective of the firms in the competitive markets. It's based on the theory that, once a company has reached an acceptable level of profit for a good or service, the aim should shift away from increasing profit to focus on increasing revenue from sales. According to the theory, companies should do so by producing more, keeping prices low, and investing in advertising to increase product demand. The idea is that applying this sales revenue maximization model will improve the overall reputation of the company and, in turn, lead to higher long-term profits.

He found that sales volumes helps in finding out the market leadership in competition. According to him, in large organization, the salary and other benefits of the managers are connected with the sales volumes instead of profits. Banks give loans to firms with more sales. So, managers try to maximizethe total revenue of the firms. The volume of sales represents the position of thefirm in the market. The managers' performance is measured on the basis of the attainment of sales and maintain minimum profit. Thus, the main aim of the firmis to maximize sales revenue and maintain minimum profits for satisfying shareholders.

3. Marris theory of Growth Maximization

According to Marris, owners/shareholders strive for attaining profits and market share and mangers strive for better salary, job security and growth. These two objectives can be attained by maximizing the balanced growth of the firm. The balanced growth of the firm relies mainly on the growth rate of demand for the firm's products and growth rate of capital supplied to the firm. if the demand for the firm's product and the capital supplied to the firm grows at the same rate then the growth rate of the firm will be considered as balanced.

Marris found that the firms faces two difficulties while attaining the objectives of maximization of balanced growth which are managerial difficulties and financial difficulties. For maximizing the growth of the firm the managers should have skills, expertise, efficiency and sincerity in them. The prudent financial policy of the firm depends on at least three financial ratios which restricts the growth of the firm. 1. Debt-Equity Ratio 2. Liquidity Ratio, 3. Retention Ratio.

4. Williamson‟s Model of Managerial Utility Functions

Williamson's model combined profits maximization and growth maximizationobjectives. According to the model of managerial utility functions, managers makes use of their discretionary powers for maximizing their own utility function and maintains minimum profits for satisfying shareholders.

- Minimum profits for minimum investment and growth of the firm.
- Managers want to maximize their own utility (satisfaction).
- Satisfaction or utility of managers depends on three variables.
  1. Staff salaries, S: Includes management salaries, administration expenses, selling expenditure. More the staff exp. more sales. Power and prestige of managers increases with S.
  2. Management emoluments, M: i.e., luxury offices, fancy cars. Perks.
  3. Discretionary investments, D: Amount spent at his own discretion

     e.g. on latest equipment, furniture, decoration material etc. to satisfy ego and give them a sense of pride. These give a boost to themanager‘s esteem and status in the organization.
- Managers use that combination of above variables that maximizes their own satisfaction.

The Williamson‘s model is written as,UM = f(S,M,D)

Where, UM = Utility of Manager, S = Salaries, M = Managerialemoluments, D = Discretionary power for investments.

The utility function of the managers rely on salary of the mangers, job security, power, status, professional satisfaction and power to affect the objectives of the firm.

TYPES OF BUSINESS ENTITIES

I. Sole Proprietorship

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

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

Features

- It is easy to start a business under this form and also easy to close.

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

Advantages

1. **Easy to start and easy to close**: Formation of a sole trader form of organization is relatively easy even closing the business is easy.
2. **Personal contact with customers directly:** Based on the tastes and preferences of the customers the stocks can be maintained.
3. **Prompt decision-making:** To improve the quality of services to the customers, he can take any decision and implement the same promptly. He is the boss and he is responsible for his business Decisions relating to growth or expansion can be made promptly.
4. **High degree of flexibility:** Based on the profitability, the trader can decide to continue or change the business, if need be.
5. **Secrecy:** Business secrets can well be maintained because there is only one trader.
6. **Transferability:** The legal heirs of the sole trader may take thepossession of the business.

Disadvantages

1. **Unlimited liability:** The liability of the sole trader is unlimited. It means that the sole trader has to bring his personal property to clear off theloans of his business. From the legal point of view, he is not different from his business.

2. **Limited amounts of capital:** The resources a sole trader can mobilize cannot be very large and hence this naturally sets a limit for the scale of operations.

3. **No division of labour:** All the work related to different functions such as marketing, production, finance, labour and so on has to be taken care of by the sole trader himself. There is nobody else to take his burden. Family members and relatives cannot show as much interest as the trader takes.

4. **Uncertainty:** There is no continuity in the duration of the business. On the death, insanity of insolvency the business may be come to an end.

5. **Inadequate for growth and expansion:** This from is suitable for only small size, one-man-show type of organizations. This may not really work out for growing and expanding organizations.

II. Partnership

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

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

Features

1. **Relationship:** Partnership is a relationship among persons. It is relationship resulting out of an agreement.

2. **Two or more persons:** There should be two or more number of persons.

3. **There should be a business**: Business should be conducted.

4. **Agreement:** Persons should agree to share the profits/losses of thebusiness

5. **Carried on by all or any one of them acting for all:** The business can be carried on by all or any one of the persons acting for all. This means that the business can be carried on by one person who is the agent for all other persons. Every partner is both an agent and a principal.

6. **Unlimited liability:** The liability of the partners is unlimited. The partnership and partners, in the eye of law,

and not different but one and the same. Hence, the partners have to bring their personal assets to clear the losses of the firm, if any.

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

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

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

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

10. **Flexibility:** All the partners are likeminded persons and hence they cantake any decision relating to business.

Partnership Deed

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

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

11. Name of the arbitrator to whom the disputes, if any, can be referred to forsettlement.

12. Special rights, obligations and liabilities of partners(s), if any.

Kind Of Partners:

1. **Active Partner:** Active partner takes active part in the affairs of the partnership. He is also called working partner.

2. **Sleeping Partner:** Sleeping partner contributes to capital but does not take part in the affairs of the partnership.

3. **Nominal Partner:** Nominal partner is partner just for namesake. He neither contributes to capital nor takes part in the affairs of business. Normally, the nominal partners are those who have good business connections, and are well places in the society.

4. **Partner by Estoppels:** Estoppels means behavior or conduct. Partner by estoppels gives an impression to outsiders that he is the partner in the firm. In fact be neither contributes to capital, nor takes any role in the affairs of the partnership.

5. **Partner by holding out:** If partners declare a particular person (having social status) as partner and this person does not contradict even after he comes to know such declaration, he is called a partner by holding out and he is liable for the claims of third parties. However, the third parties should prove they entered into contract with the firm in the belief that he is the partner of the firm. Such a person is called partner by holding out.

6. **Minor Partner:** Minor has a special status in the partnership. A minor can be admitted for the benefits of the firm. A minor is entitled to his share of profits of the firm. The liability of a minor partner is limited to the extentof his contribution of the capital of the firm.

Advantages

1. **Easy to form:** Once there is a group of like-minded persons and good business proposal, it is easy to start and register a partnership.
2. **Availability of larger amount of capital:** More amount of capital can beraised from more number of partners.

3. **Division of labour:** The different partners come with varied backgrounds and skills. This facilities division of labour.

4. **Flexibility:** The partners are free to change their decisions, add or drop a particular product or start a new business or close the present one and so on.

5. **Personal contact with customers**: There is scope to keep close monitoring with customers requirements by

keeping one of the partners incharge of sales and marketing. Necessary changes can be initiated based on the merits of the proposals from the customers.

Disadvantages:

1. **Formation of partnership is difficult:** Only like-minded persons can start a partnership. It is sarcastically said,‘ it is easy to find a life partner, but not a business partner‘.

2. **Liability:** The partners have joint and several liabilities beside unlimited liability. Joint and several liability puts additional burden on the partners, which means that even the personal properties of the partner or partners can be attached. Even when all but one partner become insolvent, the solvent partner has to bear the entire burden of business loss.

3. **Lack of harmony or cohesiveness:** It is likely that partners may not, most often work as a group with cohesiveness. This result in mutual conflicts. Lack of harmony results in delay in decisions and paralyses theentire operations.

4. **Limited growth:** The resources when compared to sole trader, a partnership may raise little more. But when compare to the other forms such as a company, resources raised in this form of organization are limited. Added to this, there is a restriction on the maximum number of partners.

III. Joint Stock Company

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

Company Defined

Lord justice Lindley explained the concept of the joint stock company from of organization as **„an association of many**

persons who contribute money ormoney‟s worth to a common stock and employ it for a common purpose‟.

Features

1. **Artificial person:** The Company has no form or shape. It is an artificial person created by law. It is intangible, invisible and existing only, in the eyes of law.

2. **Separate legal existence**: it has an independence existence, it separate from its members. It can acquire the assets. It can borrow for the company. It can sue other if they are in default in payment of dues, breach of contract with it, if any. Similarly, outsiders for any claim can sueit.

3. **Voluntary association of persons**: The Company is an association of voluntary association of persons who want to carry on business for profit. To carry on business, they need capital. So they invest in the share capitalof the company.

4. **Limited Liability**: The shareholders have limited liability i.e., liability limited to the face value of the shares held by him.

5. **Capital is divided into shares**: The total capital is divided into a certain number of units. Each unit is called a share.

Advantages

1. **Mobilization of larger resources:** A joint stock company provides opportunity for the investors to invest, even small sums, in the capital of large companies. The facilities rising of larger resources.

2. **Separate legal entity:** The Company has separate legal entity. It is registered under Indian Companies Act, 1956.

3. **Limited liability:** The shareholder has limited liability in respect of the shares held by him. In no case, does his liability exceed more than the face value of the shares allotted to him.

4. **Transferability of shares:** The shares can be transferred to others. However, the private company shares cannot be transferred.

5. **Liquidity of investments**: By providing the transferability of shares, shares can be converted into cash.

Disadvantages

1. **Formation of company is a long drawn procedure**: Promoting a joint stock company involves a long drawn procedure. It is expensive and involves large number of legal formalities.

2. **High degree of government interference**: The government brings out a number of rules and regulations governing the internal conduct of the operations of a company such as meetings, voting, audit and so on, and any violation of these rules results into statutory lapses, punishable under the companies act.

3. **Inordinate delays in decision-making**: As the size of the organization grows, the number of levels in organization also increases in the name of specialization. The more the number of levels, the more is the delay in decision-making.

4. **Lack or initiative**: In most of the cases, the employees of the company at different levels show slack in their personal initiative with the result,the opportunities once missed do not recur and the company loses the revenue.

IV. Limited Liability Company (LLC)

Limited Liability Company is another category of company registered under the Indian New Companies Act, 2013. There are number of companies available in India including private limited and public limited ones but Limited LiabilityCompany is a brand new one in the line. It's often called as a Limited Liability Corporation and its nature of business is quite similar with partnership firm and sole trade business. Company is an association of persons or an artificial person formed under the Indian Companies act in order to carry out a certain business. Under the Limited Liability Company Act, liability is limited among members or partners.

New Companies Act, 2013 has defined all rules and regulations regarding incorporating and registering all limited liability companies. One should apply to the Registrar of Companies (ROC) by giving all the details regarding company including name of the company, name and address of board of directors, location of the company as per the company registration services.

company may be owned by a single individual, two or more individuals, or by acompany or another LLC.

Features

Limited liability: As the name implies, members‘ liabilities for the debtsand obligations of the LLC are limited to their own investment.

1. **Pass-through taxation:** For taxation purposes, income from your business can be treated as your own personal income, and is therefore notsubject to certain corporate taxes for which companies are liable.

2. **Separate Legal Entity:** A LLP is a legal entity and a juristic person established under the Act. Therefore, a LLP has wide legal capacity andcan own property and also incur debts. However, the Partners of a LLP have no liability to the creditors of a LLP for the debts of the LLP.

3. **Uninterrupted Existence:** A LLP has 'perpetual succession', that is continued or uninterrupted existence until it is legally dissolved. A LLP being a separate legal person, is unaffected by the death or other departure of any Partner. Hence, a LLP continues to be in existence irrespective of the changes in ownership.

Advantages

1. Limited liability: As the name implies, members‘ liabilities for the debtsand obligations of the LLC are limited to their own investment.

2. **Pass-through taxation:** For taxation purposes, income from your business can be treated as your own personal income, and is therefore notsubject to certain corporate taxes for which companies are liable.

3. **Limitless ownership:** Some legal structures limit the number of people allowed to file as owners. With an LLC, there is no limit to the number of owners. An LLC can have one member or hundreds of members.

SOURCES OF RAISING CAPITAL

Sources of raising long-term capital:

1) **Issue of Shares**: The amount of capital decided to be raised frommembers of the public is divided into units of equal value. These units are known as share and the aggregate values of shares are known as share capital of the company. Those who subscribe to the share capital become members of the company and are called shareholders. They are theowners of the company.

a) **Issue of Preference Shares**: Preference share have three distinct characteristics. Preference shareholders have the right to claim dividend at a fixed rate, which is decided according to the terms of issue of shares. Moreover, the preference dividend is to be paid first out of the net profit. The balance, it any, can be distributed among other shareholders that is, equity shareholders. However, payment of dividend is not legally compulsory. Only when dividend is declared, preference shareholders have a prior claim over equity shareholders.

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

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

2) **Issue of Debentures:** When a company decides to raise loans from the public, the amount of loan is divided into units of equal. These units are known as debentures. A debenture is the instrument or certificate issued by a company to acknowledge its debt. Those who invest money in debentures are known as _debenture holders'. They are creditors of the company. Debentures carry a fixed rate of interest, and generally are repayable after a certain period.

3) **Loans from financial Institutions:** Government with the main object of promoting industrial development has set up a number of financial institutions. These institutions play an important role as sources of company finance. These institutions provide medium and long-term finance to industrial enterprises at a reason able rate of interest. Thus companies may obtain direct loan from the financial institutions for expansion or modernization of existing manufacturing units or for starting a new unit.

4) **Retained Profits:** Successful companies do not distribute the whole of their profits as dividend to shareholders but reinvest a part of the profits. The amount of profit reinvested in the business of a company is known as retained profit.

5) **Public Deposits:** An important source of medium – term finance which companies make use of is public deposits. This requires advertisement to be issued inviting the general public of deposits. Against the deposit, the company mentioning the amount, rate of interest, time of repayment and such other information issues a receipt.

Sources of raising short-term capital:

1) **Trade credit**: Trade credit is a common source of short-term finance available to all companies. It refers to the amount payable to the suppliersof raw materials, goods etc. after an agreed period, which is generally lessthan a year. It is customary for all business firms to allow credit facility to their customers in trade business. Thus, it is an automatic source of finance.

2) **Bank loans and advances**: Money advanced or granted as loan by commercial banks is known as bank credit. Companies generally secure bank credit to meet their current operating expenses. The most common forms are cash credit and overdraft facilities. Under the cash credit arrangement, the maximum limit of credit is fixed in advance on the security of goods and materials in stock.

3) **Overdraft**: In the case of overdraft, the company is allowed to overdraw its current account up to the sanctioned limit. This facility is also allowed either against personal security or the security of assets. Interest ischarged on the amount actually overdrawn, not on the sanctioned limit.

4) **Discounting of Bills**: Commercial banks also advance money by discounting bills of exchange. A company having sold goods on credit maydraw bills of exchange on the customers for their acceptance. A bill is an order in writing requiring the customer to pay the specified amount after a certain period (say 60 days or 90 days). After acceptance of the bill, the company can drawn the amount as an advance from many commercial banks on payment of a discount. The amount of discount, which is equalto the interest for the period of the bill, and the

balance, is available to the company. Bill discounting is thus another source of short-term finance available from the commercial banks.

5) **Short term loans from finance companies**: Short-term funds may be available from finance companies on the security of assets. Some finance companies also provide funds according to the value of bills receivable or amount due from the customers of the borrowing company, which theytake over.

NON-CONVENTIONAL SOURCES OF FINANCE

1. **Venture capital**

Venture capital is financing that investors provide to start-up companies and small businesses that are believed to have long-term growth potential. Venture capital generally comes from venture capital firms, which comprise of professionally well-off investors, investment banks and any other financial institutions. However, it does not always take just a monetary form; it can be provided in the form of technical or managerial expertise.

Though it can be risky for the investors who put up the funds, the potential for above-average returns is an attractive payoff. For new companies or ventures that have a limited operating history (under two years), venture capital fundingis increasingly becoming a popular – even essential – source for raising capital, especially if they lack access to capital markets, bank loans or other debt instruments. The main downside is that the investors usually get equity in the company, and thus a say in company decisions.

2. Private Equity

Private equity is capital that is not noted on a public exchange. Private equity is composed of funds and investors that directly invest in private companies, or that engage in buyouts of public companies, resulting in the delisting of public equity. Institutional and retail investors provide the capital for private equity,and the capital can be utilized to fund new technology, make acquisitions, expand working capital, and to bolster and solidify a balance sheet.

Private equity comes primarily from institutional investors and accredited investors, who can dedicate substantial sums of money for extended timeperiods. In most cases, considerably long holding periods are often required for private equity investments, in order to ensure a turnaround for distressed companies or to enable liquidity events such as an initial public offering (IPO) or a sale to a public company.

3. IPO

An initial public offering, or IPO, is the very first sale of stock issued by a company to the public. Prior to an IPO the company is considered private, with a relatively small number of shareholders made up primarily of early investors (such as the founders, their families and friends) and professional investors (such as venture capitalists or angel investors). The public, on the other hand, consists of everybody else – any individual or institutional investor who wasn‘t involved in the early days of the company and who is interested in buying shares of the company. Until a company‘s stock is offered for sale to the public, the public is unable to invest in it. You can potentially approach the owners of a private company about investing, but they're not obligated to sell you anything. Public companies, on the other hand, have sold at least a portion of their shares to the public to be traded on a stock exchange. This is why an IPO is also referred to as "going public."

The English word economics is derived from the ancient Greek word oikonomikos—meaning the management of a family or a household. Economics is the study of how individuals and societies make decisions about way to use scarce resources to fulfil wants and needs. Economics deals with individual choice, money and borrowing, production and consumption, trade and markets, employment and occupations, asset pricing, taxes and much more.

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DEFINITIONS

1. **Adam Smith‟s Definition:-** Adam Smith, considered to be the founding father of modern Economics, defines Economics as **"the study of the nature and causes of nations‟ wealth or simply as the study of wealth".** The central point in Smith's definition is wealth creation. He assumed that, the wealthier a nation becomes the happier are its citizens. Thus, it is important to find out, how a nation can be wealthy. Economics is the subject that tells us how to make a nation wealthy. Adam Smith'sdefinition is a wealth-centred definition of Economics.

2. **Alfred Marshall‟s Definition:-** Alfred Marshall also stressed the importanceof wealth. But he also emphasised the role of the individual in the creation and the use of wealth. He defines: **"Economics is a study of man in the ordinary business of life.**
3. **Lionel Robbins‟ Definition:-** In his book **„Essays on the Nature and Significance of the Economic Science‟, published in 1932,** Robbins gavea definition which has become one of the most popular definitions of Economics. According to Robbins, **"Economics is a science which studies human behaviour as a relationship between ends and scarce means which have alternative uses".**

MICRO AND MACRO ECONOMICS

Meaning of Micro – economics

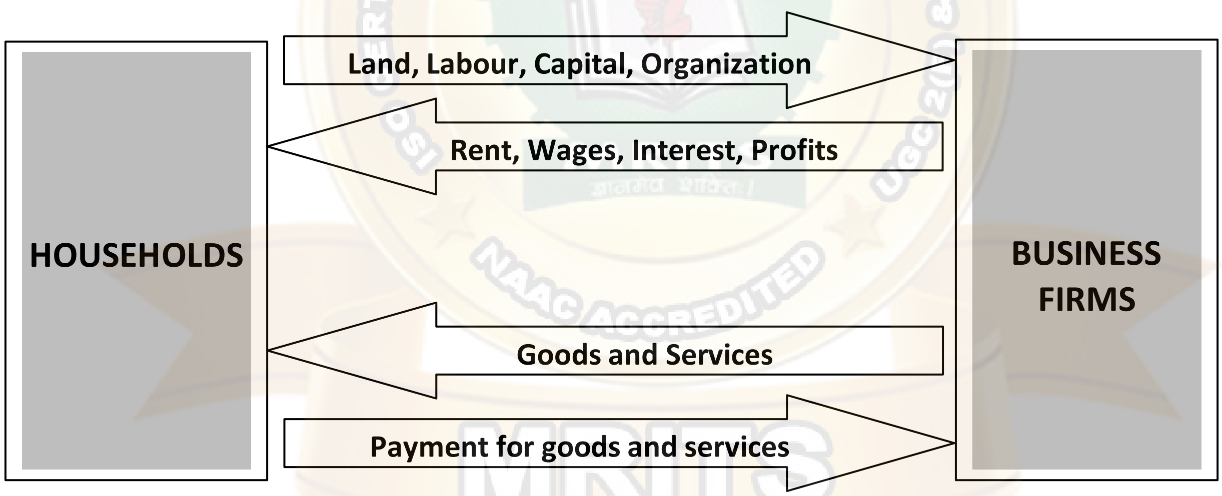
The term micro was originated from Greek word ‗Mikros' which means small. Hence, microeconomics is concerned on small economic units like as individual consumer, households, firms, industry etc.

Microeconomics may be defined as the branch of economic analysis whichstudies about the economic behaviour of individual economic unit may be a person, a particular households, a particular firm and an industry. The main objective of micro – economics is to explain the principles, problems and policies related to the optimum allocation of resources. According to K. E. Boulding,
―Microeconomics is the study of particular firm, particular households, individual price, wage, income of the industry and particular commodity‖.

It is the study of individual tree not a whole forest. Hence, microeconomics tries to explain how an individual allocates his money income among various needs aswell as how an individual maximize satisfaction level from the consumption of available limited resources. Microeconomics also explains about the process of determination of individual price with interaction of demand and supply. It helps to determine the price of the product and factor inputs. Therefore, it is also called as price theory or demand and supply theory. Simply microeconomics is microscopic study of the economy.

NATIONAL INCOME

According to Marshall: ―The labour and capital of a country acting on its natural resources produce annually a certain net aggregate of commodities, materialand immaterial including services of all kinds. This is the true net annual income or revenue of the country or national dividend.‖ In this definition, the word ‗net' refers to deductions from the gross national income in respect of depreciation and wearing out of machines. And to this, must be added income from abroad.



Circular Flow of National Income :-

National income is a flow of money payments resulting from the productive resources of a country during a year. It has the concept of circular flow in this sense that the economic transactions which are made in a country during a particular year appears in different ways. The expenditure of one person is the income of another person, and his expenditure is also equal to value of goods and services. To explain this idea we assume that there is economy where are only two sectors in the economy.

1. Firms.
2. **Households.**

Firms are required to produce goods. Households own the various factors of production. Firms require the services of households to produce goods. The firmshire the services of households to produce goods. These goods are again supplied to the households. When households sector purchases the goods it makes the payments. Similarly firms make the payment in the shape of rent, wages, and interest to the households against their services.

In this way the sum of prices of the goods and services must be equal to the sum of the reward for the services of factors of production.

So income flows from firms to households in exchange for these services and again the expenditure flows from households to firms. The goods which are produced by the firms these are purchased by the household. The flow of income flows from firms to household and flow of expenditure from household to firms will be equal. This is called circular flow of national income.

CONCEPTS OF NATIONAL INCOME

There are various concepts of National Income. The main concepts of NI are: GDP, GNP, NNP, NI, PI, DI, and PCI. These different concepts explain about the phenomenon of economic activities of the various sectors of the economy.

1. Gross Domestic Product (GDP)

Gross domestic product- the market value of all final goods and services produced in a country during a specific period of time which is usually one year.

GDP is measured using market values, and not quantities. Production is measured in quantities, but then those quantities have to be changed to accountfor their value. In economics we use prices to place values on the final goods,so total production times price will give us the total value.

Final goods and services vs intermediate goods or services. A product is a final good or service when it is purchased by the final user. Intermediate productsare used as an input to produce another good or service such as sugar being purchased to make soda. Sugar is an intermediate good, while soda is a final good.

GDP only includes the value of final goods, intermediate goods are not included. GDP only includes current production, and ignores the sale of used goods. If you purchase a bike in 2011, then that purchase is included in 2011 GDP measure, not 2010 or 2012. Also, if you sell that bike at any time in the future, the sale of that bike is not included in GDP.

An equation for GDP and some actual values:

$$GDP = C + I + G + NX$$

The GDP equation shows us that GDP is equal to consumption expenditure (C) plus investment expenditure (I) plus government expenditure (G) plus netexports (NX = Exports - Imports).

2. Gross National Product (GNP)

Gross National Product is the total market value of all final goods and services produced annually in a country plus net factor income from abroad. Thus, GNP is the total measure of the flow of goods and services at market value resulting from current production during a year in a country including net factor income from abroad. The GNP can be expressed as the following equation:

GNP=GDP+NFIA (Net Factor Income from Abroad

NFIA = Income earned by Indians in abroad through jobs or businesses –Income earned by foreigners in India by jobs or businesses.

3. Net National Product (NNP)

Net National Product is the market value of all final goods and services after allowing for depreciation. It is also called National Income at market price. When charges for depreciation are deducted from the gross national product, we get it.Thus,

NNP=GNP-Depreciation

4. National Income (NI)

National Income is also known as National Income at factor cost. National income at factor cost means the sum of all incomes earned by resources suppliers for their contribution of land, labor, capital and organizational ability which go into the years net production. Hence, the sum of the income received by factors of production in the form of rent, wages, interest and profit is called National Income. Symbolically,

NI=NNP + Subsidies given by Govt. - Indirect Taxes

5. Personal Income (PI)

Personal Income is the total money income received by individuals and households of a country from all possible sources before direct taxes. Therefore, personal income can be expressed as follows:

PI=NI-Corporate Income Taxes-Undistributed Corporate Profits-Social Security Contribution + Transfer Payments

6. Disposable Income (DI)

The income left after the payment of direct taxes from personal income is called Disposable Income. Disposable income means actual income which can be spent on consumption by individuals and families. Thus, it can be expressed as:

DI=PI-Direct Taxes

7. Per Capita Income (PCI)

Per Capita Income (average income) of a country is derived by dividing the national income of the country by the total population of a country. Thus,

PCI=Total National Income/Total National Population

IMPORTANCE OF NATIONAL INCOME

The following points highlight the top eleven reasons for growing importance of national income studies in recent years.

1. Economic Policy:

Economic policy refers to the actions which Govt. Takes in the economic feild such as Tax policy, Money supply policy, Interest rate policy etc. National income figures are an important tool of macroeconomic analysis and policy.

National income estimates are the most comprehensive measures of aggregate economic activity in an economy. It is through such estimates that we know the aggregate yield of the economy and can lay down future economic policy for development.

2. Economic Planning:

National income statistics are the most important tools for long-term and short- term economic planning. A country cannot possibly frame a plan without having a prior knowledge of the trends in national income. The Planning Commission in India also kept in view the national income estimates before formulating the five-year plans.

3. Economy‟s Structure:

National income statistics enable us to have clear idea about the structure of the economy. It enables us to know the relative importance of the various sectors of the economy and their contribution towards national income. From these studieswe learn how income is produced, how it is distributed, how much is spent, saved or taxed.

4. Inflationary and Deflationary Gaps:

Inflationary gap means the amount by which the total demand is higher than the total supply. Deflationary gap means the amount by which the total demand is less than the total supply. National income and national product figures enableus to have an idea of the inflationary and deflationary gaps. For accurate and timely anti-inflationary and deflationary policies, we need regular estimates of national income.

5. Budgetary Policies:

Modern governments try to prepare their budgets within the framework of national income data and try to formulate anti-cyclical policies according to the facts revealed by the national income estimates. Even the taxation and borrowing policies are so framed as to avoid fluctuations in national income.

6. National Expenditure:

National income studies show how national expenditure is divided between consumption expenditure and investment expenditure. It enables us to provide for reasonable depreciation to maintain the capital stock of a community. Too liberal allowance of depreciation may prove harmful as it may unnecessarily leadto a reduction in consumption.

7. Distribution of Grants-in-aid:

National income estimates help a fair distribution of grants-in-aid by the federal governments to the state governments and other constituent units.

8. Standard of Living Comparison:

National income studies help us to compare the standards of living of people in different countries and of people living in the same country at different times.

9. International Sphere:

National income studies are important even in the international sphere as these estimates not only help us to fix the burden of international payments equitably amongst different nations but also enable us to determine the subscriptions and quotas of different countries to international organisations like the UNO, IMF, IBRD. etc.

10. Defense and Development:

National income estimates help us to divide the national product between defence and development purposes. From such figures we can easily know how much can be spared for war by the civilian population.

11. Public Sector:

National income figures enable us to know the relative roles of public and privatesectors in the economy. If most of the activities are performed by the state, we can easily conclude that public sector is playing a dominant role.

INFLATION

Inflation is defined as a sustained increase in the general level of prices forgoods and services in a county, and is measured as an annual percentage change. Under conditions of inflation, the prices of things rise over time. Put differently, as inflation rises, every rupee you own buys a smaller percentage ofa good or service. When prices rise, and alternatively when the value of money falls you have inflation.

The value of a rupee (or any unit of money) is expressed in terms of its purchasing power, which is the amount of real, tangible goods or actual services that money can buy at a moment in time. When inflation goes up, thereis a decline in the purchasing power of money. For example, if the inflation rateis 2% annually, then theoretically a Rs.1 chocolate will cost Rs.1.02 in a year. After inflation, your rupee does not go as far as it did in the past.

TYPES OF INFLATION

1. **Creeping Inflation:** This is also known as mild inflation or moderate inflation. This type of inflation occurs when the price level persistently rises over a period of time at a mild rate. When the rate of inflation is less than 10 per cent annually, or it is a single digit inflation rate, it is considered to be a moderate inflation.

2. **Galloping Inflation:** If mild inflation is not checked and if it is uncontrollable, it may assume the character of galloping inflation. Inflationin the double or triple digit range of 20, 100 or 200 percent a year is called galloping inflation . Many Latin American countries such as Argentina, Brazil had inflation rates of 50 to 700 percent per year in the 1970s and 1980s.

3. **Hyperinflation:** It is a stage of very high rate of inflation. While economies seem to survive under galloping inflation, a third and deadlystrain takes hold when the cancer of hyperinflation strikes. Nothing good can be said about a market economy in which prices are rising a million or even a trillion percent per year . Hyperinflation occurs when the prices go out of control and the monetary authorities are unable to impose any check on it. Germany had witnessed hyperinflation in 1920‘s.

4. **Stagflation:** It is an economic situation in which unemployment increases along with rising inflation causing demand to remain stagnant in a given period. In fact, it is an indication of an inefficient market, as traditionally, there is an inverse relationship between unemployment rates and inflationary pressures. Stagflation was witnessed by developed countries in 1970s,when world oil prices rose dramatically.

5. **Deflation:** Deflation is the reverse of inflation. It refers to a sustained decline in the price level of goods and services. It occurs when the annual inflation rate falls below zero percent (a negative inflation rate), resultingin an increase in the real value of money. Japan suffered from deflation for almost a decade in 1990s.

MONEY SUPPLY AND INFLATION

Inflation refers to a sustained rise in the prices of goods and services. When inflation occurs, the buying value of a currency unit erodes, meaning that a person needs more money to buy the same product. Most economists suggest there is a direct relationship between the amount of money in an economy, known as the money supply, and inflation levels. Understanding the relationship between money supply and inflation is far from easy or predictable, sinceinflation can easily be influenced by other factors as well.

BUSINESS CYCLE

Business cycles, also called trade cycles or economic cycles, refer to perpetual features of the economic environment of a country. In simple words, business cycles can be defined as fluctuations in the economic activities of a country. The economic activities of a country include total output, income level, prices of products and services, employment, and rate of consumption. All these activities are interrelated; if one activity changes, rest of them would also show changes

Definition: Lord Keynes defines business cycle as ― a business cycle is composed of periods of good trade characterized by rising prices and lowunemployment percentage, altering with periods of bad trade characterized by falling prices and high unemployment percentage‖.

CHARACTERISTICS OF A BUSINESS CYCLE

1. **Cyclical movements**: When excess movement in one direction, saydepression tends to bring into operations not only in its remedy but also a stimulus to an excess movement in the other direction, say boom, the movement is said to be cyclical. It is like the movement of a pendulum. The movement in one direction tends to automatically generate a movement in the opposite direction of prosperity in the economy sow the seeds of depression also.
2. **International in nature:** it is very likely that boom in the economy of one country boom in another country. Different countries are linked with one another through international trade and foreign exchange. This implies that prosperity in one country contributes to prosperity in other countries also.
3. **Varying degree of impact:** Since periods of business cycles are more likely to be different, they tend to vary in the degree of their impact on an economy. Business cycles may affect different industries in an economy in varying degrees.
4. **Irregular patterns:** No two business cycles are similar in rhythm. There is no fixed pattern governing each business cycle.
5. **Wave like movement:** Business cycles reflect a wavelike movement that implies a composite photograph of all the recorded cycles. One complete round from boom to depression and depression to boom is calledbusiness cycle.
6. **Fluctuation in productive capacities:** Production capacities undergo wild fluctuations are measured in terms of unemployment.
7. **Fluctuations in price levels:** The upward phase of cycle is identified with expansion of production capacities, diminishing unemployment and rise in prices. On the other hand, the downward phase of cycle is identified with contraction of production capacities, increasingunemployment and fall in prices.
8. Every cycle has four distinct phases: (a) depression, (b) revival, (c)prosperity or boom, and (d) recession

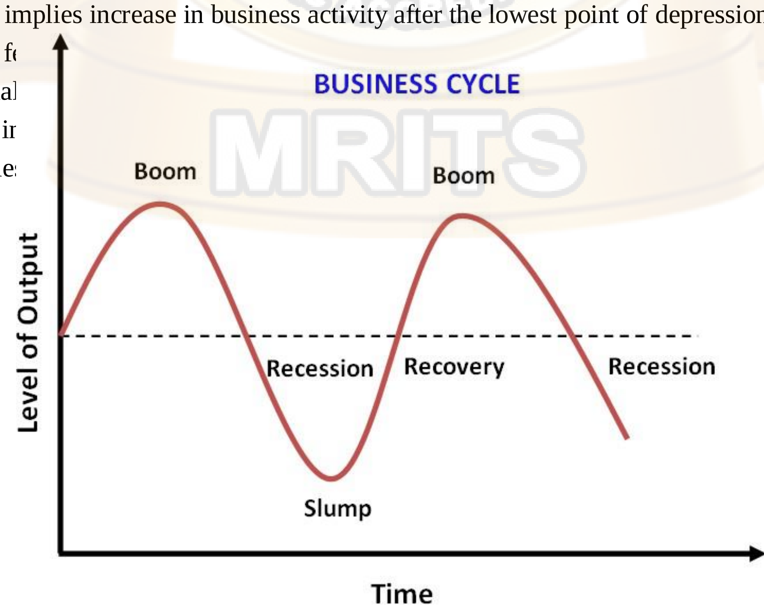
PHASES OF A BUSINESS CYCLE

(a) Prosperity/Expansion/Boom : In this stage increase production, high capital investment in basic industries, expansion of the bank credit, high prices, high profit, full employment.

(b) Recession : This stage is characterized by liquidation in the stock market, strain in the banking system and some liquidation of bank loan, small fall inprice, sharp reduction in demand for capital equipment and abandoning ofrelatively new projects. Unemployment leads to full income expenditure, price & profits. It is cumulative effect once a recession starts it goes on gathering momentum and finally assumes the shape of depression.

(c) Depression/Slump : It is a protective period in which Business activities inthe country is far below the normal. It is characterized by a sharp deduction of production, mass unemployment, low employment, falling prices, falling profits, low wages, and contraction of credit, high rate of business failures and an atmosphere of all round pessimism and despair all construction activities cometo a more or less complete stand still during depression. The consumer goods industries and however, not much affected.

(d) Recovery : It implies increase in business activity after the lowest point of depression has been reached. The entrepreneur began to fe ... ew innovation in business activities. The industrial ... t also straightly increases. There is a slow rise in ... vestment takes place in capital goods industries ... atmosphere of all round



According to **E. F. Brigham** and **J. L. Pappas**, *"Managerial Economics is the application of Economic theory and methodology to business administrationpractise."*

According to **McNair** and **Meriam**, *"Managerial Economics consists of the use of Economic modes of thought to analyse business situations."*

According to **M. H. Spencer** and **L. Siegelman**, *"Managerial Economics is the integration of economic theory with business practise for the purpose of facilitating decision making and forward planning."*

According to **Hauge**, *"Managerial Economics is concerned with using logic of economics, mathematics & statistics to provide effective ways of thinking about business decision problems."*

According to **Joel Dean**, *"The purpose of Managerial Economics is to show how economic analysis can be used in formulating business policies."*

NATURE OF BUSINESS ECONOMICS

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

The other features of managerial economics are explained as below:

(a) Microeconomics in nature: Business economics is concerned with finding the solutions for different managerial problems of a particular firm. Thus, it is more close to microeconomics.

(b) Operates against the backdrop of macroeconomics: The macroeconomics conditions of the economy are also seen as limiting factors for the firm to operate. In other words, the managerial economist has to be awareof the limits set by the macroeconomics conditions such as government industrial policy, inflation and so on.

(c) Normative economics: Economics can be classified into two broad categories normally. Positive Economics and Normative Economics. Positive economics describes ― what is‖ i.e., observed economic phenomenon. The statement ― Poverty in India is very high‖ is an example of positive economics. Normative economics describes ―what ought to be‖ i.e., it differentiates the ideals form the actual. Ex: People who earn high incomes ought to pay more income tax than those who earn low incomes. A normative statement usually includes or implies the words _ought' or _should'. They reflect people's moral attitudes and are expressions of what a team of people ought to do.

(d) Prescriptive actions: Prescriptive action is goal oriented. Given a problem and the objectives of the firm, it suggests the course of action from the availablealternatives for optimal solution. It does not merely mention the concept, it also explains whether the concept can be applied in a given context on not. For instance, the fact that variable costs as marginal costs can be used to judge the feasibility of an export order.

(e) Applied in nature: _Models‘ are built to reflect the real life complex business situations and these models are of immense help to managers for decision-making. The different areas where models are extensively used include inventory control, optimization, project management etc. In Business economics, we also employ case study methods to conceptualize the problem, identify that alternative and determine the best course of action.

(f) Offers scope to evaluate each alternative: Business economics provides an opportunity to evaluate each alternative in terms of its costs and revenue. The Business economist can decide which is the better alternative to maximize the profits for the firm.

(g) Interdisciplinary: The contents, tools and techniques of Business economics are drawn from different subjects such as economics, management, mathematics, statistics, accountancy, psychology, organizational behavior, sociology and etc.

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

SCOPE OF BUSINESS ECONOMICS

The main focus of Business economics is to find the solution to Business problems for which the Business economist makes use of the concepts, tools andtechniques of economics and other related disciplines.

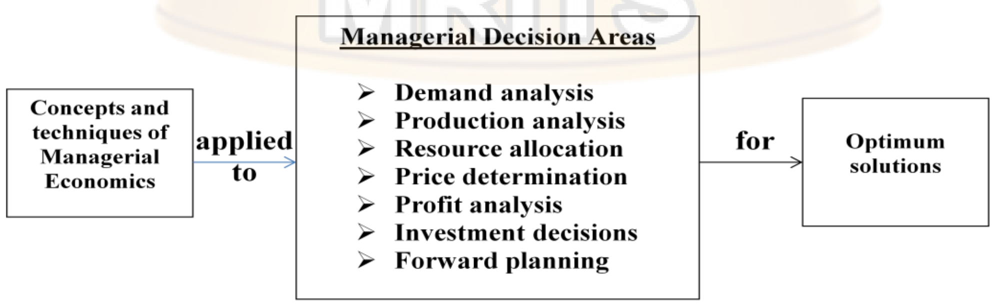


Fig: Scope of Managerial Economics

1. Demand Analyses and Forecasting:

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

a) The basis for analyzing market influences on the firms; products and thus helps in the adaptation to those influences.

b) Demand analysis also highlights for factors, which influence the demand for a product. This helps to manipulate demand. Thus demand analysis studies not only the price elasticity but also income elasticity, crosselasticity as well as the influence of advertising expenditure. With the advent of computers, demand forecasting has become an increasingly important function of Business economics.

2. Price determination:

Pricing decisions have been always within the preview of Business economics. Pricing policies are merely a subset of broader class of Business economic problems. Price theory helps to explain how prices are determined under different types of market conditions. Competition analysis includes the anticipation of the response of competing firms‘ pricing, advertising and marketing strategies. Product line pricing and price forecasting occupy an important place here.

3. Production and cost analysis:

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

4. Resource Allocation:

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

5. Profit analysis:

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

6. Investment decisions:

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

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

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

7. Forward planning:

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

MULTI-DISCIPLINARY NATURE OF BUSINESS ECONOMICS

Many new subjects have evolved in recent years due to the interaction among basic disciplines. While there are many such new subjects in natural and social sciences, Business economics can be taken as the best example of such a phenomenon among social sciences. Hence it is necessary to trace its roots and relationship with other disciplines.

1. **Relationship with economics:**

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

2. Relationship with accounting:

Business economics has been influenced by the developments in management theory and accounting techniques. A proper knowledge of accounting techniques is very essential for the success of the firm because profit maximization is the major objective of the firm. Business Economist requires a proper knowledge of cost and revenue information and their classification.

3. Relationship with mathematics:

The use of mathematics is significant for Business economics in view of its profit maximization goal long with optional use of resources. The major problem of thefirm is how to minimize cost, how to maximize profit or how to optimize sales. Mathematical concepts and techniques are widely used in economic logic to solve these problems. Geometry, Algebra and calculus are the major branches of mathematics which are of use in Business economics.

4. Relationship with Statistics:

A successful businessman must correctly estimate the demand for his product. Statistical methods provide and sure base for decision-making. Thus statistical tools are used in collecting data and analyzing them to help in the decision making process. Statistical tools like the theory of probability and forecasting techniques help the firm to predict the future course of events. Business Economics also make use of correlation and multiple regressions in related variables like price and demand to estimate the extent of dependence of one variable on the other.

5. Relationship with Operations Research:

The development of techniques and concepts such as linear programming, inventory models and game theory is due to the development of this new subject of operations research in the post-war years. Operations research is concerned with the complex problems arising out of the management of men, machines, materials and money.

Operation research provides a scientific model of the system and it helps Business economists in the field of product development, material management, and inventory control, quality control, marketing and demand analysis.

7. Relationship with Computer Science:

Computers are used in data and accounts maintenance, inventory and stock controls and supply and demand predictions. What used to take days and months is done in a few minutes or hours by the computers. In fact computerization of business activities on a large scale has reduced the workload of Business personnel

Unit-II

DEMAND ANALYSIS

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

Thus demand in economics means the desire backed by the willingness to buy a commodity and the purchasing power to pay.

In the words of -**Benham‖** –The demand for anything at a given price is the amount of it which will be bought per unit of time at that Price‖.

Hence, demand refers to the amount of commodity which an individual consumer is willing to purchase atgiven price in a given period. The demand is said to exist when the following three conditions are fulfilled.

1. Desire to purchase
2. Ability to pay
3. Willing to pay

Ex: A beggar may have desire to purchase a car but he cannot pay money for it.Ex: A miser does not purchase a car but he can pay money for it.

DEMAND FUNCTION

Demand function is a function which describes a relationship between one variable and its determinants. The demand function for a good relates the quantity of good which consumers demand during a given period to the factors which influence the demand. Quantity demanded is dependent variable and all the factors are independent variables. The factors can be built up into a demand function. The demand function can be mathematically expressed as follows:

$$Q = f(P, I, T, P_1..P_n, E_P, E_I, A, O)$$

Q = Quantity demandedf = Function of
P = Price of goods itself I = Income of consumers
T = Taster and preferences $P_1..P_n$ = Price of related goods
E_P = Expectation about future

LAW OF DEMAND:

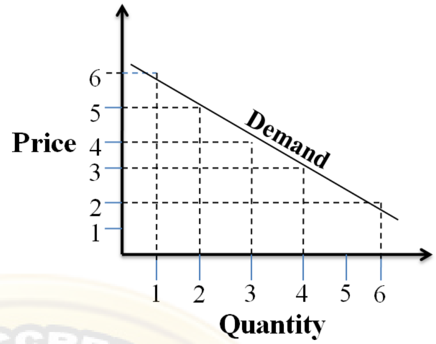
Law of demand shows the relationship between price and quantity demanded of a commodity in the market. In the words of Marshall, ―the amount demand increases with a fall in price and The law of demand states that **" other things remaining constant, the higher the price of the commodity, the lower is the demand and lower the price, higher is the demand". paribus**

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

Demand Schedule:

Price of Apple (In. Rs.)	Quantity Demanded
2	6
3	4
4	3
5	2
6	1

Demand Curve:



When the price falls from Rs. 6 to 5, quantity demand increases from 1 to 2. In the same way as pricefalls, quantity demanded increases. On the basis of the demand schedule, we can draw the demand curve. The above demand curve shows the inverse relationship between price and quantity demanded of apple.It is downward sloping.

EXCEPTIONS TO LAW OF DEMAND

According to law of demand, other things being constant, as the price increases, the demand for the commodity decreases and vice-versa. But this is not true all the time. In some cases, as the price increases, the demand for the commodity will also increase and the demand decreases when the price decreases. All these cases are considered as exceptions to the law of demand.

When price increases from OP to Op1, quantity demanded also increases from OQ to OQ1 and vice versa.The following are the exceptions to the law of demand.

***1.* Giffen goods or Giffen paradox:**

The Giffen good or inferior good or cheap good is an exception to the law of demand. The demand for these goods varies directly with the variations in prices i.e., there exists direct relation between the quantity demanded and the price of the commodity. Giffen goods may or may not exist in the real world.

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***2.* Goods of status**

In some situations, certain commodities are demanded just because they are expensive or prestige goods and are usually used as status symbols to display one's wealth in the society. Examples of such commodities are diamonds, air conditioned car, duplex houses etc. as the price of these commodities increase, they are more considered as status symbols and hence their demand gets raised. This goesagainst the law of demand.

***3.* Ignorance:**

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

***4.*consumer expectations of future prices**

If the price of the commodity is increasing, the consumers will buy more of it because of the fear that it increase still further. Similarly, if the consumer expects the future prices to decrease, he may not purchasethe commodity thinking that the good may be of bad quality. This violates the law of demand.

ELASTICITY OF DEMAND

Elasticity of demand explains the relationship between a change in price and consequent change inamount 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.

Definition Of Elasticity Of Demand:

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 four types of elasticity of demand:

1. Price elasticity of demand
2. Income elasticity of demand
3. Cross elasticity of demand
4. Advertisement elasticity of demand

I. Price elasticity of demand:

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

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

$$E_p = \frac{\dfrac{Q_2 - Q_1}{Q_1}}{\dfrac{P_2 - P_1}{P_1}}$$

Q_1 = Old demand
Q_2 = New demand
p_1 = Old price
p_2 = New price

There are five cases of price elasticity of demand

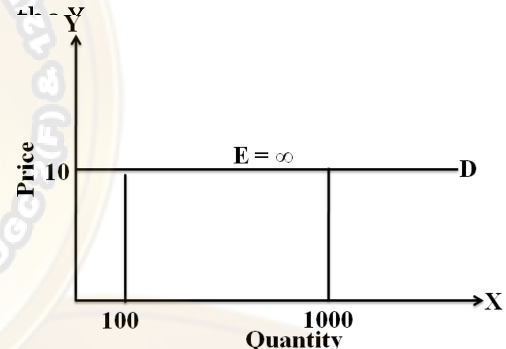
A. Perfectly elastic demand:

When small change in price leads to an infinitely large change is quantity demand, it is called perfectly or infinitely elastic demand. In this case E=∞. Sometimes, even there is no change in the price, the demand changes in huge quantity. In case of perfect elastic demand, the demand for a commodity changes even though there is no change in price. This elasticity is very rarely found in practice. We can see a straight line demand curve parallel to

Price	Demand
10	100
10	1000

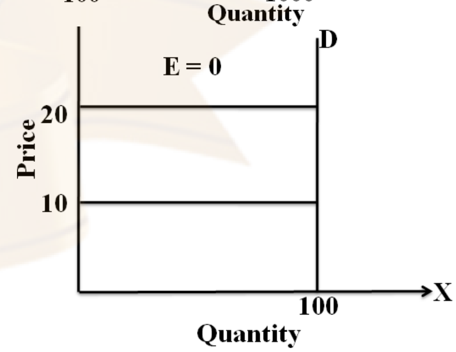
E_p = ((Q2 – Q1)/Q1) /((P2 – P1)/P1)

E_p = (1000 – 100)/100 /(10 – 10)/10 = ∞



The demand curve is horizontal straight line. It shows the at Rs. 10 price any quantity is demanded and if price increases, the consumer will not purchase the commodity.

B. Perfectly Inelastic Demand



A commodity is said to have perfectly inelastic demand, when even a large change in price of the commodity causes no change in the quantity demanded. The elasticity coefficient of perfectly in elastic demand is E_p = 0.

The shape of the demand curve for perfectly inelastic is vertical as shown below.

Price	Demand
10	100
20	100

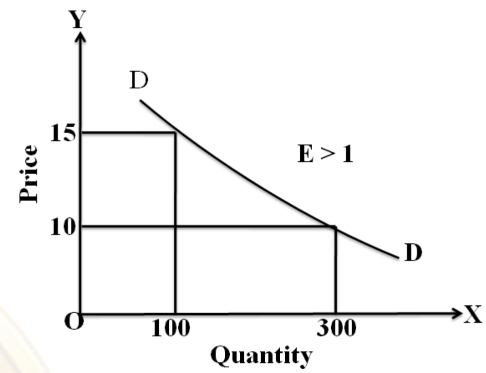
E_p = ((Q2 – Q1)/Q1) /((P2 – P1)/P1)

E_p = (100 – 100)/100 /(20 – 10)/10 = 0

When price increases from Rs. 10 to Rs.20, the quantity demanded remains the same. In other words theresponse of demand to a change in Price is nil. In this case ‗E'=0.

C. Relatively elastic demand:

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



Price	Demand
10	300
15	100

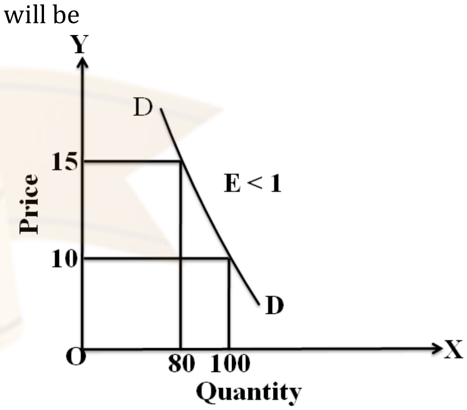
E_p = ((Q2 – Q1)/Q1) /((P2 – P1)/P1)

E_p = (100 – 300)/300 /(15 – 10)/10 = –1.34

When price increases from Rs.10 to Rs.15, quantity demanded decreases from 300units to 100units whichis larger than the change in price.

D. Relatively in-elastic demand.

Quantity demanded changes less than proportional to a change in price. A large change in price leads tosmall change in quantity demanded. Here E < 1. Demanded carve will be steeper.



Price	Demand
10	100
15	80

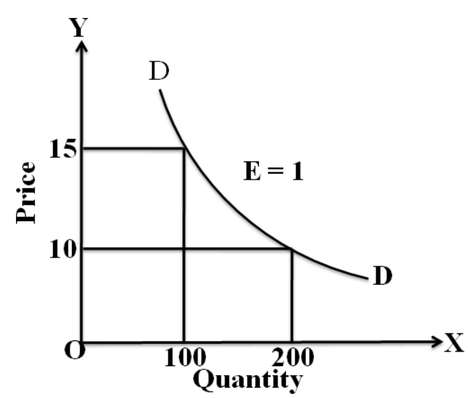
E_p = ((Q2 – Q1)/Q1) /((P2 – P1)/P1)

E_p = (80 – 100)/100 /(15 – 10)/10 = –0.40

When price increases from Rs.10 to Rs.15 quantity demanded decreases from100units to units, which is smaller than the change in price.

E. Unitary elasticity of demand:

The change in demand is exactly equal to the change in price. When bothare equal, E=1 and elasticity is said to be unitary.



Price	Demand
10	200
15	100

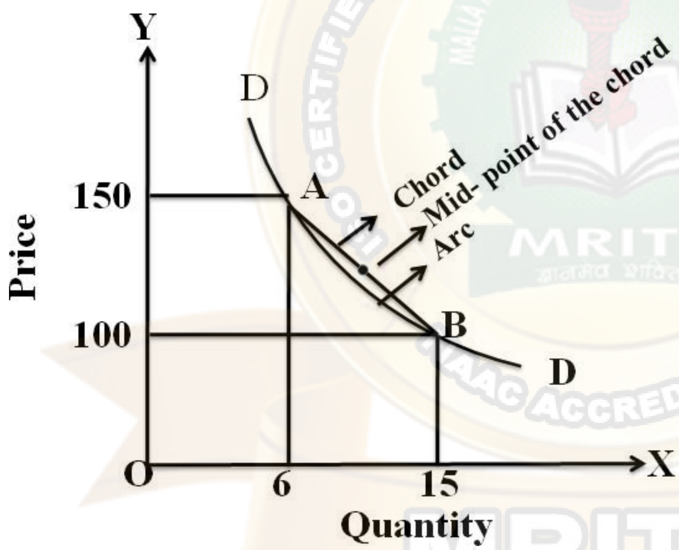
E_p = ((Q2 – Q1)/Q1) /((P2 – P1)/P1)

$E_p = (100 - 200)/200\ /(15 - 10)/10 = -1$

When price increases from Rs.10 to Rs.15, quantity demanded decreases from 200units to 100units. Thusa change in price has resulted in an equal change in quantity demanded so price elasticity of demand is equal to unity.

1) Arc Elasticity or Mid–Point Method:

Arc elasticity of demand is the average elasticity over a segment of the demand curve. In point elasticity, we find elasticity on straight line demand curve. We cannot always find a demand curve in the form of straight line. A demand curve is not linear. So, how do we find elasticity on such a curve?. What we do is that we have to identify two points, say point A and point B and then draw a chord (a straight line joining two points on a curve) between these two points. Join these two points with a straight line. What happens is we get a straight line with arc (a part of a curve). Now, how do we find elasticity between these two points?. We have a formula for that: The following graph presents the clear meaning of the arc elasticity.



$$\text{Arc Elasticity} = \frac{\dfrac{Q_2-Q_1}{\frac{Q_2+Q_1}{2}}}{\dfrac{P_2-P_1}{\frac{P_2+P_1}{2}}} = \frac{\dfrac{15-6}{\frac{15+6}{2}}}{\dfrac{100-150}{\frac{100+150}{2}}} = 2.14$$

DEMAND FORECASTING

Forecasting is predicting or expecting the needs of the consumers in future. Forecasting the demand for its products is the essential function for an organization irrespective of its nature. Forecasting customer demand for products and services is a proactive process of determining what products are needed, where, when and in what quantities. So, demand forecasting is a customer focused activity. It supports other planning activities such as capacity planning, inventory planning and even overall business planning. Many organizations follow it as a custom to completely and accurately forecast the demand of its products regularly. Demand forecasting is not helpful at the firm level but also at national level. The need for demand forecasting arises due to the following purposes.

- It serves as a road map for production plans.
- It plays a significant role in situations of uncertain production or demand.
- It facilitates the managers to line up their business activities.
- It is a basis for export and import policy and fiscal policy.
- It can help businessman to take decisions regarding inputs of production process such as labor,capital etc.

STEPS IN DEMAND FORECASTING

1. Determining the objectives

The first step in this regard is to consider the objectives of sales forecasting carefully.

2. Period of forecasting

Before taking up forecasting, the company has to decide the period of forecasting — Whether it is a short-term forecast or long-term research.

3. Scope of forecast

The next step is to decide the scope of forecasting— Whether it is for the products, or for a particular areaor total industry or at the national/international level.

4. Sub-dividing the task

Sub-dividing the task into homogeneous groups, according to product, area, activities or consumers. The figure of sales forecasting shall be the sum total of the sales forecasts of all the groups.

5. Identify the variables

The different variables or factors affecting the sales should be identified so that due weight age may be given to those different factors.

6. Selecting the method

Appropriate method of sales forecasting is selected by the company taking into account all the relevant information, purpose of forecasting and the degree of accuracy required

7. Study of correlation between sales forecasts and sales promotion plans

Making the forecast reliable, the sales promotion plans such as advertising, personal selling and othersales programmes should be reviewed. A study of correlation between sales forecasts and sales promotionplans should be made in order to establish their role in promoting the sales.

8. Competitors activities

Volume of sales of a company is largely affected by the activities of competitors and, therefore, the forecaster must also study the competitors' activities, policies, programmes and strategies.

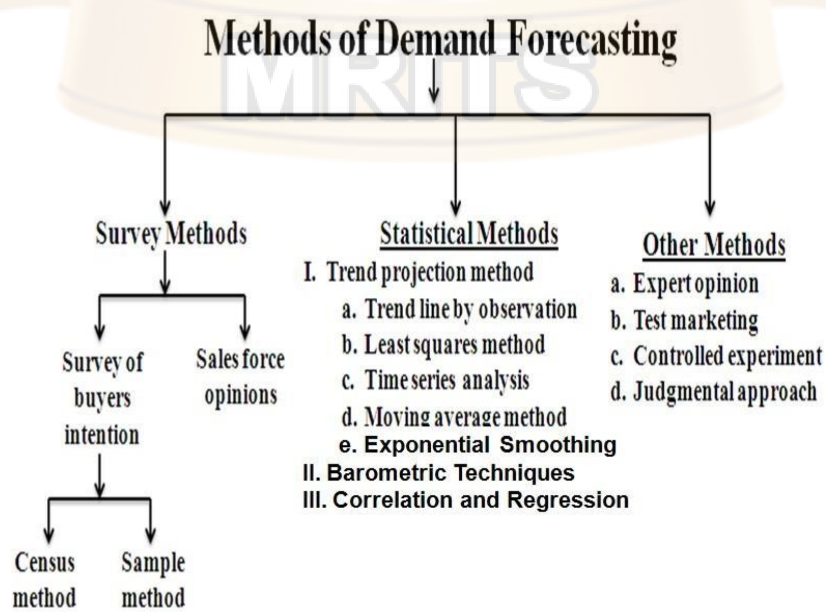
9. Preparing final sales forecasts

The preliminary sales forecasts figure should be reviewed and final sales forecast figures should be arrived at after making all adjustments.

10. Evaluation and adjustments

The figures of final sales forecasts form the basis for the operations of the company in the next period. The actual sales performance in the forthcoming period should be reviewed and evaluated from time to time viz, monthly, quarterly, half-yearly or yearly and so on. The forecast figures should be revised in the light of difficulties experienced during actual performance. At the end of the forecast period, actual performance should be reviewed and rectified while forecasting the demand for the next period.

METHODS OF FORECASTING:



This method of forecasting trend is elementary, easy and quick as it involves merely the plotting theactual sales data on a chart and then estimating just by observation where the trend line lies. The line can be extended towards a future period and corresponding sales forecast read from the graph.

1. Least squares method:

Here, certain statistical formulas are used to find the trend line which best fits the available data. It is assumed that there is a proportional change in sales over period of time. In such a case, the trend line equation is in linear form.

The estimating linear trend equation of sales is written as: $S = x + y(T)$, where x and y have been calculated form past data, S is sales and T is the year number for which the forecast is made. To find the values of x and y, the following equations have to be used.

$$\Sigma S = Nx + y\Sigma T$$
$$\Sigma ST = x\Sigma T + y\Sigma T^2$$

Where S is the sales; T is the year number, N= number of years.

2. Times series analysis:

Time series forecasting is the use of a model to predict future values based on previously observed values. The first step in making estimates for the future consists of gathering information from the past. In this connection one usually deals with statistical data which are collected, observed or recorded at successive intervals of time. Such data are generally referred to as time series. Thus when we observe numerical data at different points of time the set of observations is known as time series. It may be noted that any or allof the components may be present in any particular series. The components are Secular trend(Long term trend), Seasonal trend , Cyclical trend (periods in the business cycle such as prosperity, decline, depression, improvement), Irregular trend(also called as erratic or accidental or random variations in business). From the following equation future sales can be measured. The constants T,S,C,I. are
calculated from past data.

3.

$$Y = T + S + C + I$$

Y = Future sales
T = Secular trend
S = Seasonal trend
C = Cyclical trend
I = Irregular trend

3.Moving average method

This method considers that the average of past events determine the future events. As the name itself suggests, under this method, the average keeps on moving depending up on the number of years selected. This method is easy to compute.

4. Exponential Smoothing

It is the most popular technique used for short-run forecasts. Unlike in moving average method, in this method, all time periods are given varying weights. Recent values are given higher weights and distance past values are given lower values. The reason is that the recent past reflects more in nearest future.

The following formula is used for exponential smoothing.

$$\mathbf{F_t + 1 = \alpha A_t + (1 - \alpha) F_t}$$

$$\mathbf{F_t + 1 = \text{New forecast}}$$

$$\mathbf{\alpha = \text{Smoothing constant; its value lies between 0 and 1}}$$

$$\mathbf{A_t = \text{Last period actual value}}$$

$$\mathbf{F_t = \text{Last period forecast value}}$$

If α is higher, higher weight is given to the most recent information. α is calculated on the basis ofpast data. If there were fluctuations in past data, the α value is high.

C. Barometric techniques:

Under the barometric technique, one set of data is used to predict another set. In other words, to forecast demand for a particular product or service, use some other relevant indicator (which is known asbarometer) of future demand. Ex: The demand for cable TV may be linked to the number of new houses occupied in a given area or demand for new houses in a particular area.

D. Correlation and Regression method:

Correlation and regression methods are statistical techniques. Correlation describes the degree of association between two variables such as sales and advertisement expenditure. When the two variables tend to change together, then they are said to be correlated. The extent to which they are correlated is measured by correlation coefficient. Of these two variables, one is dependent variable and the other is independent. If the high values of one variable are associated with the high values of another, they are said to be positively correlated. Similarly, if the high values of one variable are associated with the low values of another, then they are said to be negatively correlated. Correlation coefficient ranges between
+1 and -1. When the correlation coefficient is zero, it indicates that the variables under study are not related at all.

a) Experts opinion:

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 interests in the results of a particular survey.

b) <u>Test marketing:</u>

It is likely that opinions given by buyers, salesmen or other experts may be, at times, misleading. This is the reason why most of the manufacturers favour to test their product or service in a limited market as test-run before they launch their products nationwide. Based on the results of test marketing, valuable lessons can be learnt on how consumers react to the given product and necessary changes can be introduced to gain wider acceptability. To forecast the sales of a new product or the likely sales of an established product in a new channel of distribution or territory, it is customary to find test marketing in practice.

c) <u>Controlled experiments:</u>

Controlled experiments refer to such exercises 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. In this method, the product is introduced with different packages, different prices in different markets or same markets to assess which combination appeals to the customer most.

d) <u>Judgment approach:</u>

When none of the above methods are directly related to the given products or services, the management has no alternative other than using its own judgment.

SUPPLY

In economics, we have two forces: the producer, who makes things, and the consumer, who buys them. **Supply** is the producer's willingness and ability to supply a given good at various price points, holding all else constant. An increase in price will increase producers' revenues, so they'll be willing to supply more; a decrease in price will reduce revenues, and so producers will supply less.

LAW OF SUPPLY

Definition: Law of supply states that other factors remaining constant, price and quantity supplied of a good are directly related to each other. In other words, when the price paid by buyers for a good rises, then suppliers increase the supply of that good in the market.

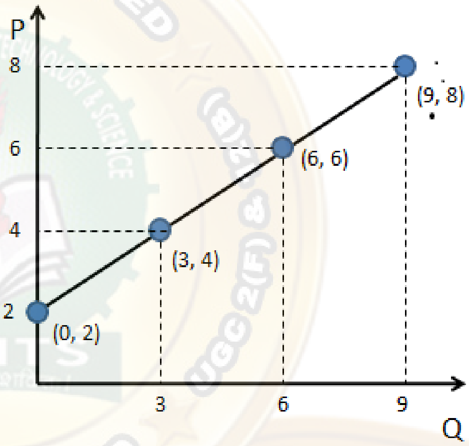
In the Words of Dooley, -The law of supply states that other things remaining the same, higher the prices the greater the quantity supplied and lower the prices the smaller the quantity supplied||.

Assumption of the Law :

1. It is assumed that incomes of buyers and sellers remain constant.
2. It is assumed that the tastes and preferences of buyers and sellers remain constant.
3. Cost of all the factors of production is also assumed to be constant.
4. It is also assumed that the level of technology remains constant.
5. It is also assumed that the commodity is divisible.
6. Law of supply states only a static situation.

Description: Law of supply depicts the producer behavior at the time of changes in the prices of goods and services. When the price of a good rises, the supplier increases the supply in order to earn a profit because of higher prices.

Price (Rs)	Quantity Supplied
2	0
4	3
6	6



The above diagram shows the supply curve that is upward sloping (positive relation between the price andthe quantity supplied). When the price of the good was at P4, suppliers were supplying Q3 quantity. As the price starts rising, the quantity supplied also starts rising.

SUPPLY FUNCTION

$$Sx = f(px, pf, o \ldots \ldots \ldots \ldots \ldots T, t, s)$$

The supply function is the mathematical expression of the relationship between supply and those factors that affect the willingness and ability of a supplier to offer goods for sale.

SX = Supply of goods X

PX = Price of goods X

PF = Factor input employed (used) for production.

- Raw material
- Human resources
- Machinery

O = Factors outside economic sphere.

Unit III PRODUCTION

Production is the transformation or conversion of resources into commodities over time. Economists view production as an activity through which utility is created or enhanced for a product. A firm is a business unit which undertakes the activity of transforming inputs into output of goods and services.

FACTORS OF PRODUCTION

Factors of production is an economic term that describes the inputs that are used in the production of goods or services in order to make an economic profit. The factors of production include land, labor, capital and entrepreneurship. These production factors are also known as management, machines, materials and labor, and knowledge has recently been talked about as a potential new factor of production.

1. Land

Land is short for all the natural resources available to create supply. It includes raw land and anything that comes from the land. It can be a non-renewable resource.

That includes commodities such as oil and gold. It can also be a renewable resource, such as timber. Once man changes it from its original condition, it becomes a capital good. For example, oil is a natural resource, but gasoline is a capital good. Farmland is a natural resource, but a shopping center is a capital good.

The income earned by owners of land and other resources is called rent.

2. Labour

Labor is the work done by people. The value of labor depends on workers' education, skills, and motivation. It also depends on productivity. That measures how much each hour of worker time produces in output.

The reward or income for labor is wages.

3. Capital

Capital is short for capital goods. These are man-made objects like machinery, equipment, and chemicals, that are used in production. That's what differentiates them from consumer goods. For example, capital goods include industrial and commercial buildings, but not private housing. A commercial aircraft is a capital goodbut a private jet is not.

The income earned by owners of capital goods is called interest.

4. Entrepreneurship

Entrepreneurship is the drive to develop an idea into a business. An entrepreneur combines the other three factors of production to add to supply. The most successful are innovative risk-takers.

The income entrepreneurs earn is profits.

PRODUCTION FUNCTION

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. So, production function is an input – output relationship. Mathematically production function can be written as

$$Q= f (L_1,L_2\ C,O,T)$$

Q = Output
f = Function of
L_1 = Land
L_2 = Labour
C = Capital
O = Organization
T = Technology

Here output is the function of inputs. Hence output becomes the dependent variable andinputs are the independent variables.

Definition :

Samueson defines the production function as "The technical relationship which reveals the maximumamount of output capable of being produced by each and every set of inputs"

Michael R Baye defines the production function as" That function which defines the maximum amountof output that can be produced with a given set of inputs."

Assumptions:

Production function has the following assumptions.

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

PRODUCTION FUNCTION WITH ONE VARIABLE INPUT

The law of variable proportions which was earlier called as "Law of diminishing returns has played a vital role in the modern economics theory. Assume that a firms‟ production function consists of fixed quantities of all inputs (land, equipment, etc.) except labour which is a variable input. If you go on adding the variable input, say, labor, the total output in the initial stages will increase at an increasing rate, and after reaching certain level of 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.

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

1. Only one factor is varied
2. The scale of output is unchanged
3. The technique of production is unchanged
4. All units of factor input varied are homogeneous

Three stages of law:

The behaviour of the Output when the varying quantity of one factor is combined with a fixed quantity of theother can be divided in to three district stages. The three stages

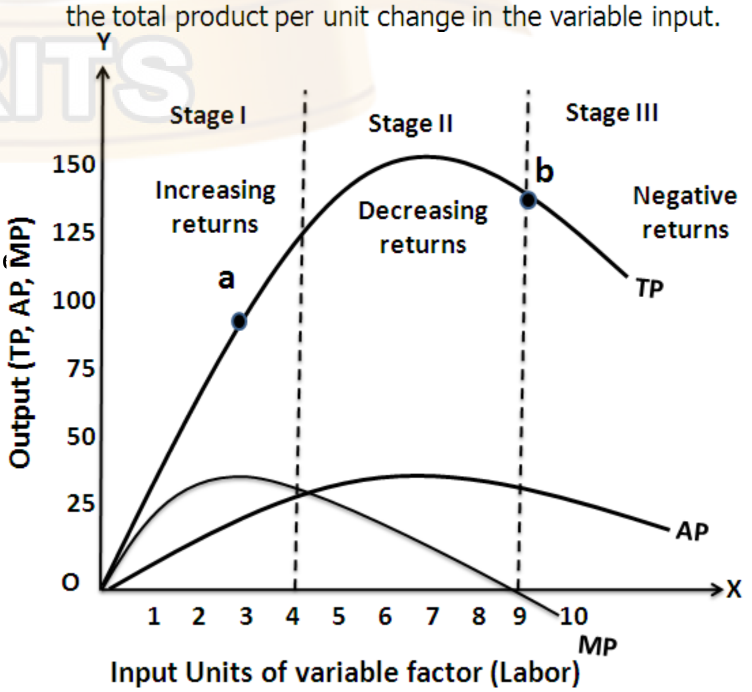
Production function with one variable input

Fixed Factor (FF) (land)	Variable Factor (VF) (labor)	Total Product (TP)	Average Product (AP)	Marginal Product (MP)	
1	1	20	20	20	STAGE I
1	2	50	25	30	
1	3	90	30	40	
1	4	120	30	30	STAGE II
1	5	135	27	15	
1	6	144	24	9	
1	7	147	21	3	
1	8	148	18.5	1	
1	9	148	16.4	0	
1	10	145	14.5	- 3	STAGE III

	I	II	III
TP	Increases at an increasing rate	Increases at a decreasing rate and becomes maximum	Decreases
AP	Increases and reaches maximum	Decreases	Continuous to decrease
MP	Increases and reaches maximum	Continuous to fall	Becomes negative

To clarify the relationship, the following are measurements of product.

1. **Total product(TP)**:- Means the total number of units of output produced per unit of time by all factor inputs.
2. **Average product(AP)**:- Is obtained by dividing the total product by the total units of variable factor.
3. **Marginal product(MP):-** is defined as the change in the total product per unit change in the variable input.



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 atthis stage. The law of diminishing returns starts operating from the second stage onwards. At the second stage total product increases only at a diminishing rate. The average product also declines. The second stage comes to an end where total product becomes maximum and marginal product becomes zero. The marginal product becomes negative in the third stage. So the total product also declines. The average product continues to decline.

We can sum up the above relationship thus when „AP‟ is rising, "MP‟ rises more than "AP; When „AP" is maximum and constant, „MP‟ becomes equal to „AP‟ when „AP‟ starts falling, „MP‟ falls faster than „AP‟.

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

PRODUCTION FUNCTION WITH TWO VARIABLE INPUTS

Isoquants analyse and compare the different combinations of capital & labour and output. The term isoquant has its origin from two words "iso" and "quantus". „iso‟ is a Greek word meaning „equal‟ and „quantus‟ is a Latin word meaning „quantity‟. Isoquant therefore, means equal quantity. An isoquant curve is therefore calledas iso-product curve or equal product curve or production indifference curve.

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

<u>Assumptions:</u>

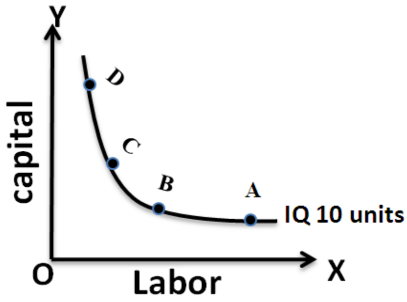
1. There are only two factors of production, viz. labour and capital.
2. The two factors can substitute each other up to certain limit
3. The shape of the isoquant depends upon the extent of substitutability of the two inputs.
4. The technology is given over a period.

For example:- Now the firm can combine labor and capital in different proportions and can maintain specified level of output say, 10 units of output of a product X. It may combine alternatively as follows:

In the below table, combination „A‟ represent 1 unit of capital and 10 units of labour and produces „10‟ units of a product. All other combinations in the table are assumed to yield the same given output of a product say „10‟ units 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 a curve called Iso-quant curve as shown below.

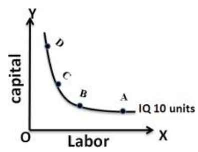
Labour is on the X-axis and capital is on the Y-axis. IQ is the Iso-Quant curve which shows all the alternative combinations A, B, C, D which can produce 10 units of a product.

Combination	Capital	Labor	output
A	1	10	10 units
B	2	6	10 ʺ
C	3	3	10 ʺ
D	4	1	10 ʺ

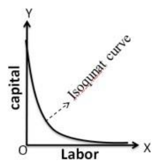


Features of an ISOQUANT:

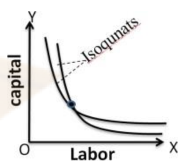
1. **Downward sloping:-**If one of the inputs is reduced, the other input has to be increased. There is no question of increase in both the inputs to yield a given output.



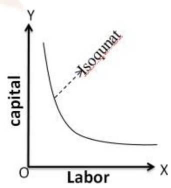
2. **Don't touch the axes:-** The isoquant touches neither X-axis nor Y-axis, as both inputs are required to produce a given product.If an isoquant is touching the X-axis, it means output is possible even by using a factor(Ex: Labor alone without using capital). But, this is unrealistic.



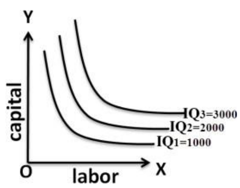
3. **Don't intersect:-** Iso-quants representing different levels of output never intersect or touch or be tangent to each other. If they intersect to each other, they have a common point on them which means that the same amount of labor and capital produce two different levels of output.



4. **Convex to origin:-**Isoquants are convex to the origin. It is because the inputs factor are not perfect substitutes. One input factor is substituted by other input factor in a decreasing marginal rate.The convexity of isoquant suggests that MRTS is diminishingwhich means that as quantities of one factor-labor is increased , the less of another factor-capital will be given up, if output level is to be kept constant.



5. **Upper isoquants represent higher level of output**:- Each isoquant represents a different quantity of output. Higher isoquants indicate a higher level of output.



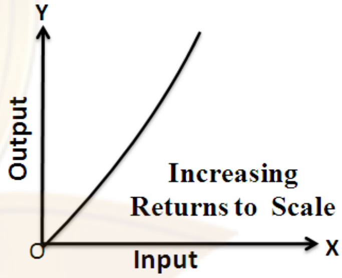
LAW OF RETURNS TO SCALE

The concept of variable proportions is a short-run phenomenon as in these period fixed factors cannot be changed and all factors cannot be changed. On the other hand in the long-term all factors can be changed as made variable. When we study the changes in output when all factors or inputs are changed, we study returns to scale. An increase in the scale means that all inputs or factors are increased in the same proportion. In variable proportions, the cooperating factors may be increased or decreased and one faster (Ex. Land in agriculture (or) machinery in industry) remains constant so that the changes in proportion among the factors result in certain changes in output. In returns to scale, all the necessary factors or production are increased or decreased to the same extent so that whatever the scale of production, the proportion among the factors remains the same.

Assumptions

1. Technique of production is unchanged
2. All units of factors are homogeneous
3. Returns are measured in physical terms

When a firm expands, its scale increases all its inputs proportionally, then technically there are three possibilities.

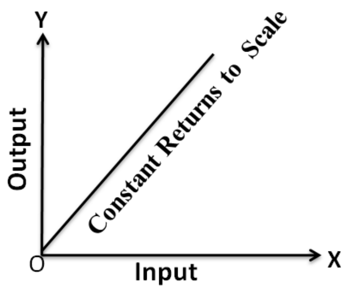


1. Law of increasing returns to scale:- if a proportionate/percentage increase in the output is larger than the proportionate/percentage increase in inputs, thereare increasing returns.

For example: If a 5% increase in inputs, results in 10% increase in theoutput, a firm is said to attain increased returns.

$$\text{Production Factor Co-efficient} = \frac{\%\ \text{Change in output}}{\%\ \text{Change in input}}$$

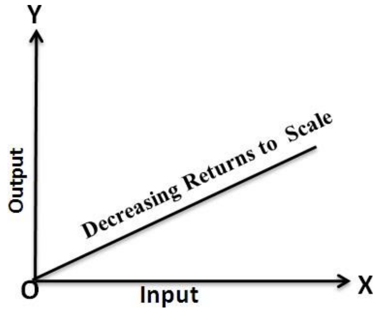
If PFC > 1, it means increasing returns to scaleIf PFC = 1, it means constant returns to scale
If PFC < 1, it means decreasing returns to scale



2. Law of constant returns to scale:- if the proportionate increase in all the inputs is equal to the proportionate increase in output, then situation of constant returns to scale occurs.

For Example:- If the inputs are increased at 10% and if the resultant output also increases a 10% then the organization is said to achieve constant returns to scale.

3. Law of decreasing returns to scale:- if the proportionate increase in output is less than the proportionate increase in input, then a situation of decreasing returns to scale occurs.



For Example:- If the inputs are increased by 10% and if the resultant outputincreases only by 5% then the organization is said to achieve decreasing returns to

DIFFERENT TYPES OF PRODUCTION FUNCTIONS

1. **Cobb-Douglas Production Function**

This production function was proposed by C. W. Cobb and P. H. Dougles. This famous statistical production function is known as Cobb-Douglas production function. Originally the function is applied on the empirical study of the American manufacturing industry from 1899 to 1922. Cobb – Douglas production function takes the following mathematical form.

$$Q = aL^{b}K^{C}$$

$$Q = 1.01L^{0.75}K^{0.25}$$

AAssumptions:

It has the following assumptions

1. The function assumes that output is the function of two factors viz. capital and labour.
2. It is a linear homogenous production function of the first degree
3. There are constant returns to scale (b+c=1)
4. All inputs are homogenous
5. There is perfect competition

TYPES OF COSTS

Profits are the difference between selling price and cost of production. In general the selling price is not within the control of a firm but many costs are under its control. The firm should therefore aim at controlling and minimizing cost. The various relevant concepts of cost are:

1. Opportunity costs and Outlay costs:

Opportunity costs refer to the „costs of the next best alternative foregone". We have scarce resources and all these have alternative uses. Where there is an alternative, there is an opportunity to reinvest the resources. In other words, if there are no alternatives, there are no opportunity costs. It is necessary that we should always consider the cost of the next best alternative foregone before committing the funds on a given option. In other words, the benefits from the present option should be more than the benefits of the next best alternative. Opportunity cost is said to exist when the resources are scarce and there are alternative uses forthese resources. If there is no alternative, Opportunity cost is zero.

For example: if a firm owns a land, there is no cost of using the land (i.e., the rent) in firm‟s account. Bust the firm has an opportunity cost of using this land, which is equal to the rent foregone by not letting the land out on (the return of second best alternative is regarded as the cost of first best alternative) rent.

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

2. Explicit costs and Implicit costs:

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

Implicit costs are also called as imputed costs which don‟t involve payment of cash as they are not actually incurred. They would have been incurred had the owner not been in possession of the facilities. Ex: Interest on own capital, saving in terms of salary due to own supervision and rent of own building etc.

3. Historical costs and Replacement costs:

Historical cost is the original cost that has been originally spent to acquire the asset. of an asset. Historical valuation is the basis for financial accounts.

A replacement cost is the price that is to be paid currently to replace the same asset. A replacement costis a relevant cost concept when financial statements have to be adjusted for inflation.

4. Short – run costs 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 are constant.Long run is defined as a period of adequate length during which a company may alter all factors of production with high degree of flexibility.

5. Out-of pocket costs and Books costs:

Out-of pocket costs also known as explicit costs are those costs that involve current cash payment such as purchase of raw material, payment of salary rents payment, interest on loan etc.

Book costs also called implicit costs do not require current cash payments. Depreciation, unpaidinterest, salary of the owner is examples of back costs.

6. Fixed costs, Variable costs and Semi-variable costs:

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

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

Semi-variable costs refer to such costs that are fixed to some extent beyond which they are variable. Ex:telephone charges, Electricity charges, etc.

7. Past costs and Future costs:

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

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

8. Controllable costs and Uncontrollable costs:

Controllable costs are ones, which can be regulated by the executive who is in charge of it. Direct expenses like material, labour etc. are controllable costs.

Some costs are not directly identifiable with a process of product. They are apportioned to various processes or products in some proportion. These apportioned costs are called uncontrollable costs.

9. Incremental costs and Sunk costs:

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

Sunk costs are those which are not altered by any change – They are the costs incurred in the past. This cost is the result of past decision, and cannot be changed by future decisions. Investments in fixed assets are examples of sunk costs. Once an asset is bought, the funds are blocked forever. They can neither be changednor controlled.

10. Total costs, Average costs and Marginal costs:

Total cost is the total expenditure incurred for the input needed for production. It may be explicit or implicit. It is the sum total of the fixed and variable costs.

Average cost is the cost per unit of output. It is obtained by dividing the total cost (TC) by the total quantity produced (Q)

Marginal cost is the additional cost incurred to produce an additional unit of output.

11. Accounting costs and Economic costs:

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

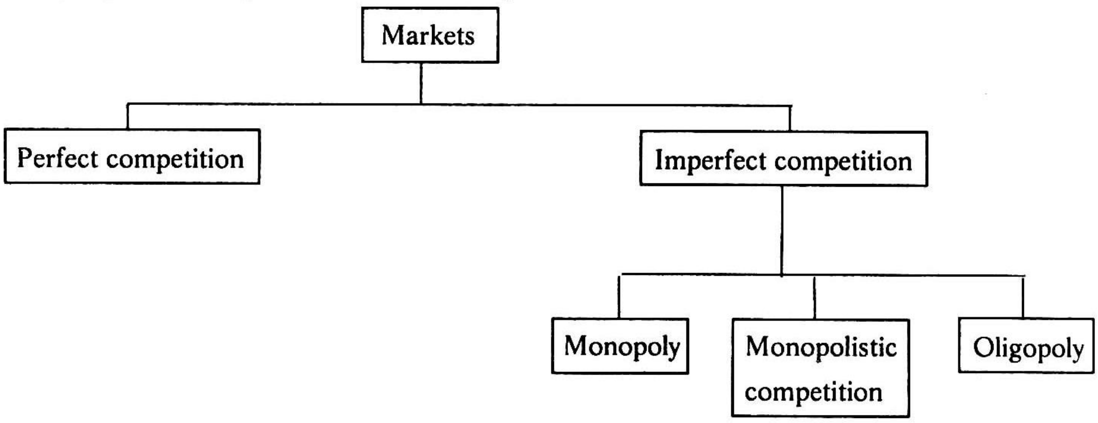
Economic cost refers to cost of economic resources used in production including opportunity cost. Economics concept considers future costs and future revenues, which help future planning, and choice, while the accountant describes what has happened, the economics aims at projecting what will happen.

MARKET

Market is a place where buyer and seller meet, goods and services are offered for the sale and transfer of ownership occurs. A market may be also defined as the demand made by a certain group of potential buyers for a good or service. The former one is a narrow concept and later one is a broader concept. Economists describe amarket as a collection of buyers and sellers who transact over a particular product or product class (the housing market, the clothing market, the grain market etc.)

Different Market Structures

Market structure describes the competitive environment in the market for any good or service. A marketconsists of all firms and individuals who are willing and able to buy or sell a particular product. This includesfirms and individuals currently engaged in buying and selling a particular product, as well as potential entrants. The determination of price is affected by the competitive structure of the market. This is because the firmoperates in a market and not in isolation. In making decisions concerning economic variables it is affected, asare all institutions in society by its environment.



PERFECT COMPETITION

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

Characteristics Of Perfect Competition

The following features characterize a perfectly competitive market:

a) **A large number of buyers and sellers:** The number of buyers and sellers is large and the share of eachone of them in the market is so small that none has any influence on the market price.
b) **Homogeneous product:** The product of each seller is totally undifferentiated from those of the others.
c) **Free entry and exit**: Any buyer and seller is free to enter or leave the market of the commodity.
d) **Perfect knowledge**: All buyers and sellers have perfect knowledge about the market for the commodity.
e) **Indifference:** No buyer has a preference to buy from a particular seller and no seller to sell to aparticular buyer.
f) **Non-existence of transport costs**: Perfectly competitive market also assumes the non-existence oftransport costs.
g) **Perfect mobility of factors of production**: Factors of production must be in a position to move freelyinto or out of industry and from one firm to the other.

Perfect competition: The individual firm

AR(Average revenue) curve and MR(Marginal Revenue) curve under perfect competition becomes equal to D(Demand) curve and it would be a horizontal line or parallel to the X-axis. The curve simply implies that a firm under perfect competition can sell as much quantity as it likes at the given price determined by the industry

i.e. a perfectly elastic demand curve.

Price=AR=MR=D

Quantity Q	Price P	Total Revenue TR	Average Revenue AR	Marginal Revenue MR
1	5	5	5	5
2	5	10	5	5
3	5	15	5	5
4	5	20	5	5

Fig: Demand curve for the firm

Perfect competition: The firm and the industry

Price is determined by the market forces, that is, demand and supply for a given product or service. As discussed above, firms have no control over the prices they charge for their products. The ultimate price that determines the quantity demanded is equal to the quantity supplied. This price is also called equilibrium price, as it balances the forces of demand and supply. The figure shows how the price is determines. DD is the demand curve and SS is the supply curve. Rs. 6 is the price at which DD and SS intersect each other. At Rs. 6, 60 units are supplied and demanded.

If the price increases to Rs.8, supply will also increase and hence the price is likely to fall down.
If the price decreases to Rs. 4, supply will decrease and hence the price is likely to go up.

Price-Output Determination Under Perfect Competition

In this market, the price is determined by supply and demand forces. Marshal who propounded the theory says that the price is determined by the equilibrium between demand and supply.

The pricing of commodity under perfect competition can be determinedin three periods of time.

a) Very short period (Market Period)

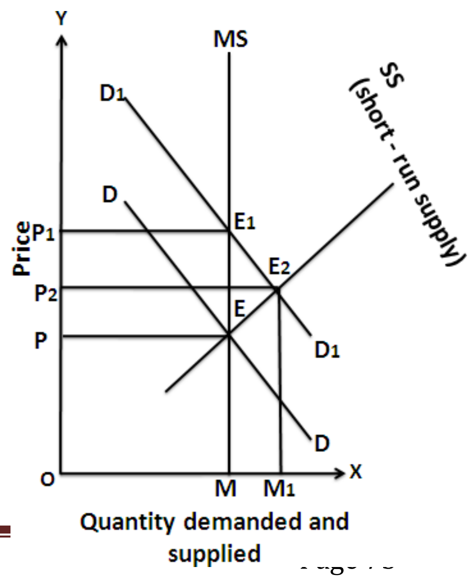
Market period is too short period to increase the supply. The market period is so short that supply of the commodity is limited to existing stock. During the market period, say a single day, the supply of a commodity is perfectly inelastic.

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

b) Short Period

Short period is not too long period to install new capital equipments. It is also not sufficient period to permit the new firms to enter the industry to increase the supply of the commodity in the market. Hence the firm can increase the supply of a commodity in the short period only by making intensive use of the given plants and equipments and increasing the units of variable factors.

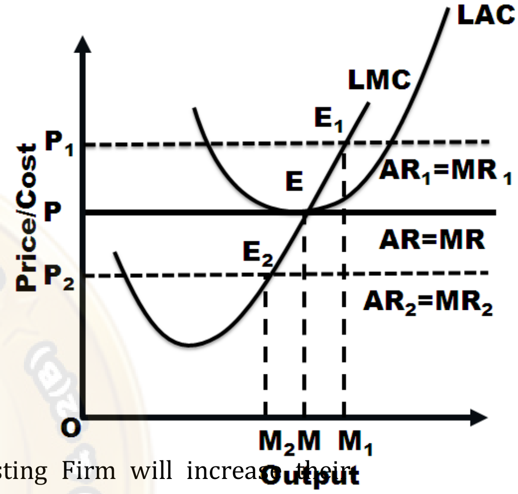
As a result of this, the short period supply of a commodity will be relatively less elastic.



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

As the price rises from OP to OP1, firms expand output. As firms can vary some factors but not all, the law of variable proportions operates. This results in new short-run supply curve SS. It interests D1 D1 curve at E2. Theprice will fall from OP1 to OP2.

c) Long Period



In Long run, the Firm‟s output (supply) can be changed by both the variable factors and fixed factors i.e. all factors become variable. There is enough time for new Firms to enter the Industry. Further, ifthe demand is increased, the supply can be increased or decreased according to the demand. For Long run equilibrium, long run marginal cost (LMC) is equal to MR and LMC curve cut the MR curve from below. In case of long run equilibrium, all the firms will earn only normal profits.

Take the case when the Firm earn super-normal profit-Then the existing Firm will increase their production and new Firm will enter the Industry. Consequently, the total supply will increase and price fall down and further results in normal profit for the firm

On the contrary, if the firm is incurring losses, Then some Firm will leave the Industry which will reduce the total supply. And due to decrease in supply, price will rise and once again Firm will begin to earn normal profit.Firm equilibrium is at the minimum point of its LAC and at this point the Firm will get the normal profits. If AR (price) rises to OP_1, then Firm‟s LMC cuts its MR1 at E_1 and the firm gets super-normal profit but again come to OP yielding normal profits as stated before. And at price OP_2, firm incurs losses but again rise to level OP to maintain the equilibrium at normal profit

Firm‟s equilibrium: MC=MR=AR= min LAC

MONOPOLY

„mono‟ means single and „poly‟ means seller. The term monopoly refers to that market in which a single firm controls the whole supply of a particular product which has no close substitutes. Monopoly emerges in firms such as transport, water and electricity supply etc.

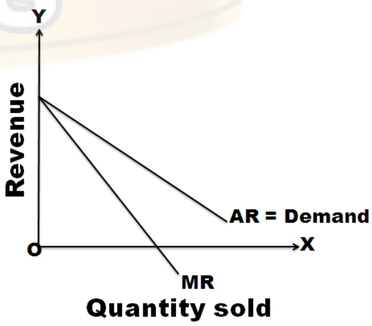
Features:

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 close substitutes. Even if price of monopoly product increases, people will not go in far substitute. For example: If the price of electric bulb increases 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, andthen 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.

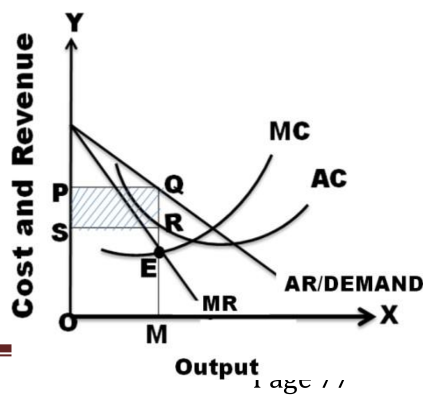
Monopoly refers to a market situation where there is only one seller. He has complete control over the supply of a commodity. He is therefore in a position to fix any price. Under monopoly there is no distinction between a firm and an industry. This is because the entire industry consists of a single firm.
Being the sole producer, the monopolist has complete control over the supply of the commodity. He has also thepower to influence the market price. He can raise the price by reducing his output and lower the price by increasing his output. Thus he is a price-maker. He can fix the price to his maximum advantages. But he cannot fix both the supply and the price, simultaneously. He can do one thing at a time. If he fixes the price, his output will be determined by the market demand for his commodity. On the other hand, if he fixes the output to be sold, its market will determine the price for the commodity. Thus his decision to fix either the price or theoutput is determined by the market demand.
The market demand curve of the monopolist (the average revenue curve) is downward sloping. Its corresponding marginal revenue curve is also downward sloping. But the marginal revenue curve lies below theaverage revenue curve as shown in the figure. The monopolist faces the down-sloping demand curve because to sell more output, he must reduce the price of his product. The firm‟s demand curve and industry‟s demand curve are one and the same. The average cost and marginal cost curve are U shaped curve. Marginal cost falls and rises steeply when compared to average cost.
Under monopoly, demand curve is average revenue curve.

Qty	AR/Price	TR	MR
1	8	8	8
2	6	12	4
3	4	12	0
4	2	8	-4
5	0	0	-8



Price-Output Determination Under Monopoly

The monopolistic firm attains equilibrium when its marginal cost becomes equal to the marginal revenue. The monopolist always desires to make maximum profits. He makes maximum profits when MC=MR. He does not increasing his output if his revenue exceeds his costs. But when the costs exceed the revenue, the monopolist firm incur loses. Hence the monopolist curtails his production. He produces up to that point where marginal cost is equal to the marginal revenue (MR=MC).



Thus, the point is called equilibrium point. The price output under monopoly may be explained with the help of a diagram.

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

The above diagram (Average revenue) =

MQ or OPAverage cost = MR

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

MR=QRTotal Profit = QR x SR=PQRS

If AR > AC; Abnormal or super normal

profits.If AR = AC; Normal Profit

If AR < AC ; Loss

MONOPOLISTIC COMPETITION

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

Features/Characteristics

The important characteristics of monopolistic competition are:

1. **Existence of Many firms:** Industry consists of a large number of sellers, each one of whom does not feel dependent upon others. Every firm acts independently without bothering about the reactions of its rivals. The size is so large that an individual firm has only a relatively small part in the total market, so that each firm has very limited control over the price of the product. As the number is relatively large, it is difficult for these firms to determine its price- output policies without considering the possible reactions of the rival forms. A monopolistically competitive firm follows an independent price policy

2. **Product Differentiation:** product differentiation is the essential feature of monopolistic competition. Products can be differentiated by means of unique facilities, advertising, brand loyalty, packing, pricing, terms of credit, superior maintenance service, convenient location and so on. Through heavy advertisement budgets, Pepsi and Coca-Cola make it very expensive for a third competitor to enter the cola market on such a big scale. The following example illustrate how the firms differentiate themselves from others in a monopolistic environment.
   - In hotel industry, some hotels have spacious swimming pools, gyms, cultural programs etc. Thecustomers who value these facilities don‟t bother about price changes.

- The colleges who provide best infrastructure and placements in various reputed companieshave demand from the student community irrespective of an increase in tuition fee.
- Cell phones which have unique features have demand from the public even price increases.

3. **Large Number of Buyers:** There are large number of buyers in the market. But the buyers have their own brand preferences. So, the sellers are able to exercise a certain degree of monopoly over them. Each seller has to plan various incentive schemes to retain the customers who patronize his products.
4. **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 substitutes, 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 notidentical though they are close substitutes.

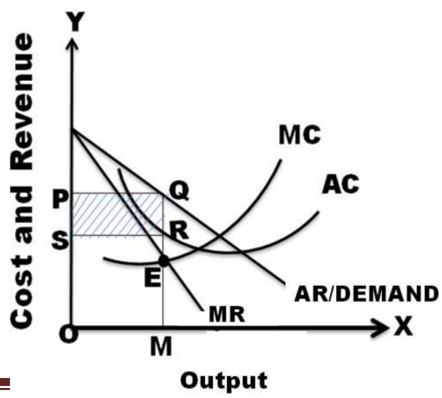
Price – Output Determination Under Monopolistic Competition

Under monopolistic competition, Since different firms produce different varieties of products, different prices for them will be determined in the market depending upon the demand and cost conditions. Each firm will set the price and output of its own product. Here also the profit will be maximized when marginal revenueis equal to marginal cost(MR=MC). The demand curve for the firm in case of monopolistic competition is just similar to that of monopoly.

The degree of elasticity of demand of a firm in monopolistic competition depends upon the extent to which the firm can resorts to product differentiation. The greater the ability of the firm to differentiate the product, the less elastic the demand is. The firm‟s influence to increase the price depends upon the extent to which it can differentiate the product

a) Short-run

In the short-run, the firm is in equilibrium when marginal Revenue = Marginal Cost. In the figure, AR is the average revenue curve. MR marginal revenue curve, MC marginal cost curve, AC average cost curve, MR and MC interest at point E where output is OM and price MQ (i.e. OP). Thus, the equilibrium output is OM and the price is MQ or OP. When the price (average revenue) is above average cost, a firm will be making supernormal profit. From the figure it can be seen that AR is above AC in the equilibrium point. As AR is above

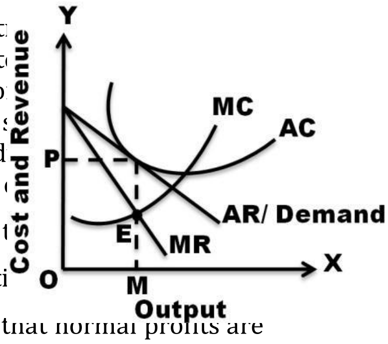


AC, this firm is making abnormal profits in the short-run. The abnormal profit per unit is QR, i.e., the difference between AR and AC at equilibrium point and the total supernormal profit is OR x OM. This total abnormal profits is represented by the rectangle PQRS. The firm may make supernormal profits in the short-run if it satisfies the following two conditions.

a) MR = MC

b) AR > AC

b) **Long–run**More and more firms will be entering the market having been att enjoyed by the existing firms in the industry. As a result, competition become s int compete with one another for acquiring scare inputs pushing up the prices of facto the entry of several firms, the supply in the market will increase, pulling down the s order to cope with the competition, the firms will have to increase the budget on ad entry of new firms continue till the supernormal profits of the firms completely firms in the industry will earn only normal profits. Those firms which are not able t profits will get closed. Thus in the long-run, every firm in the monopolistic competi only normal profits, which are just sufficient to stay in the business. It is be noted that normal profits are part of average costs.



In the long-run, in order to achieve equilibrium position, the firm has to fulfill the following conditions:

a) MR = MC

b) AR = AC at the level of equilibrium level of output.

OLIGOPOLY

The term oligopoly is derived from two Greek words, oligos meaning a few, and pollen meaning to sell. Oligopoly is the form of imperfect competition where there are a **few sellers** in the market, producing either a homogeneous product or producing products, which are close but not perfect substitute of each other.

Features

1. **Monopoly Power:**

   There is a clement of monopoly power in oligopoly. Since there are only a few firms and each firm has a large share of the market. In its share of the market, it controls the price and output. Thus anoligopoly has some monopoly power.

2. Interdependence of Firms:

   Under oligopoly, there are only a few firms, each producing a homogeneous or slightly differentiated product. Since the number of firms is small, each firm enjoys a large share of the market and has a significant influence on the price and output decisions. Thus, there is interdependence of firms. No firm can ignore the actions and reactions of rival firms under oligopoly.

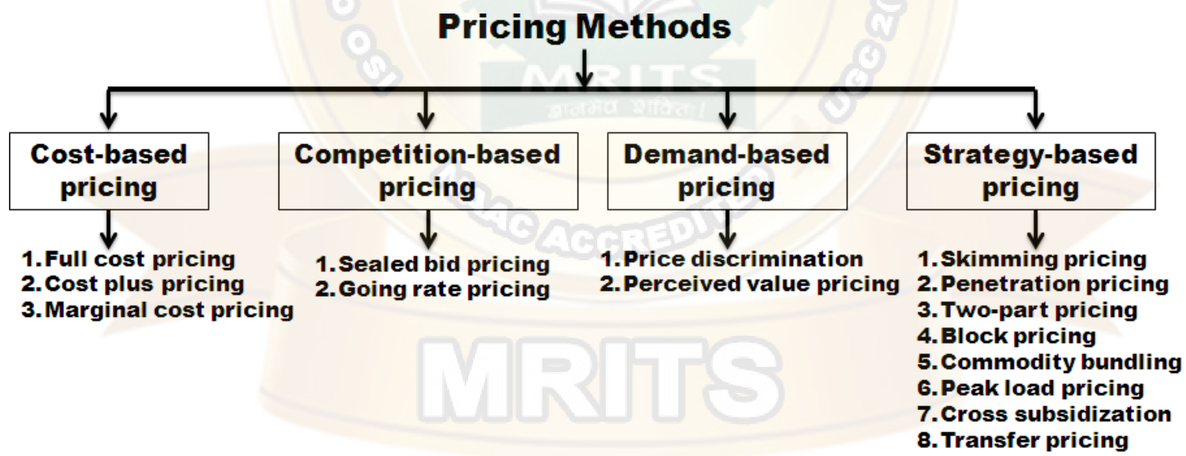
3. Conflicting Attitude of Firms:

   Under oligopoly, two types of conflicting attitudes are found in the firms. On the one hand, firms realize the disadvantages of mutual competition and desire to combine to maximize their joint profits. This tendency leads to the formation of collusion. On the other hand, the desire to maximize one‟s individual profit may lead to conflict and antagonism; the firms come into clash with one another onthe question of distribution of profits and allocation of markets. Thus, there is an existence of two opposing attitudes among the firms.

4. Few firms. In this market, only few sellers are found:
   For example, the market for automobiles in India exhibits oligopolistic structure as there are only few producers of automobiles. If there are only two firms, it is called „duopoly".
5. Nature of product:
   If the firms product homogeneous product, it becomes pure oligopoly. The firms with productdifferentiation constitute impure oligopoly.
6. Interdependence among firms:
   In oligopoly market, each firm treats the other as its rival firm. It is for this reason that each firm while determining price of its product, takes into account the reaction of the other firms to its own action.
7. Large number of consumers:
   In this market, there are large numbers of consumers to demand the produc

TYPES OF PRICING

Firms set prices for their products through several alternative means. The important pricing methods followedin practice are shown in the chart.



A. Cost Based Pricing

1. **Full cost pricing:-**Under this method, price is just equal to the average cost.
2. **Cost plus pricing:-** Here, the average cost is ascertained and then a conventional margin added to the cost to arrive at the price. In other words, find out the product unit‟s total cost and add a percentage of profit to arrive at the selling price. It is commonly followed in departmental stores and other retail shops. This method is simple to be administered. It may be very difficult to find the selling price in advance due to complexity of the nature of the project.
3. **Marginal cost pricing**(**Break even pricing or Target profit pricing**)**:-** In this method, selling price is fixed in such a way that it covers full variable or marginal cost and contributes towards recovery of fixed costs. in the stiff competition, marginal cost offers a guidelines as to how far the selling price can be lowered.

B. Competition based pricing

Here the price of product is set based on what the competitor charges for a similar product. In other words, a reduction in the price of products by the competitor will force us to follow suit. In such a case, how far we can go on reducing the price?. Here the marginal cost concept comes handy. As long as the price covers the marginal cost, continue to sell. If not, better stop selling. It is because, every unit sold at less than marginal cost results in loss.

1. **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 theperson who quotes the lowest price is awarded the contract.
2. **Going rate pricing**:- Here the prevailing market price is charged. Suppose, when one wants to buy or sell gold, the prevailing market rate at a given point of time is taken as the basis to determine the price

C. Demand Based Pricing

1. **Perceived value pricing**:- This method considers the buyer‟s perception of the value of the product as the basis of pricing. Here the pricing rule is that the firm must develop procedures for measuring the relative value of the product as perceived by consumers.
2. **Price discrimination**(**Differential pricing**)**:-** Price discrimination refers to the practice of charging different prices to customers for the same good. In involves selling a product or service for different prices in different market segments. Price differentiation depends on geographical location of the consumers, type of consumer, purchasing quantity, season, time of the service etc. E.g. Telephone charges, APSRTC charges.

D. Strategy based pricing

1. **Skimming pricing:-** The company follows this method when the product is for the first time introduced in the market. Under this method, the company fixes a very high price for the product. this strategy is mostly found in case of technology products. When Samsung introduces a new cell phone model, it fixes a high price because of the uniqueness of the product.
2. **Penetration pricing:-** This is exactly opposite to the market skimming method. Here, a low price is fixed for the product in order to catch the attention of consumers, once the product image and credibility is established, the seller slowly starts jacking up the price to reap good profits in future. The Rin washing soap perhaps falls into this category. This soap was sold at a rather low price in the beginning and the firm even distributed free samples. Today, it is quite an expensive brand and yet it is selling very well.
3. **Two-part pricing:-** Under this strategy, a firm charges a fixed fee for the right to purchase its goods, plus a per unit charge for each unit purchased. Entertainment houses such as country clubs, athletic clubs, etc, usually adopt this strategy. They charge a fixed initiation fee or membership fee plus a charge, per month or per visit, to use the facilities.

4. **Block pricing:-** We see block pricing in our day-to-day life very frequently. Four Santhoor soaps in a single pack with nice looking soap box or five Maggi packets in a single pack with an attractive bowl indicate this pricing method. The total value of the goods includes consumer‟s surplus as the consumer is given soap box and bowl along with the products freely. By selling certain number of units of a product as one package, the firm earns more than by selling unit wise.
5. **Commodity bundling:-** Commodity bundling means the practice of bundling two or more different products together and selling them at single „bundle price‟. For example tourist companies offer the package that includes the travelling charges, hotel, meals and sight-seeing etc, at a bundle price instead of pricing each of these services separate

6.Peak load pricing:- Under this method, high price is charged during the peak times than off-peak times. RTC increases charges during festivals, Railways charge more fares during tatkal time. During seasonal period when demand is likely to be higher, a firm may increase profits by peak load pricing.

6. **Cross subsidization:-** The process of charging high price for one group of customers in order to subsidize another group.
7. **Transfer pricing:-** Transfer pricing means a price at which one process forwards their output(work-in- progress) to the next process for further processing. It is an internal pricing technique.

BREAK EVEN ANALYSIS

BEP analysis is also called as CVP analysis. The BEP can be defined as that level of sales at which total revenues equals total costs and the net income is equal to zero. This is also known as no-profit no-loss point.

Break-even analysis refers to analysis of costs and their possible impact on revenues and volume of the firm. Hence, it is also called the cost-volume-profit (CVP) analysis. A firm is said to attain the BEP when its total revenue is equal to total cost(TR=TC).

The main objective of the Break Even Analysis is not only to spot the BEP but also to develop an understanding of the relationships of cost, volume and price within a company‟s practical range of operations.

Assumptions of Break-Even Analysis

1. All cost are divided into fixed and variable
2. Fixed costs remain constant whereas variable costs vary
3. Selling price remains constant
4. There will be no change in the operating efficiency

Key terms used in Break-even Analysis

1. Fixed cost(FC):- Fixed cost remains fixed in the short-run. These costs must be borne by the firm ever there is no production. Example: Rent, Insurance, Depreciation, permanent employees‟ salaries. Etc. Fixed cost per units varies.

2. Variable costs(VC):- The costs which vary in direct proportion to the production/sales volume are called as variable costs. variable cost per unit is fixed. Examples for variable costs: cost of direct material, cost directlabor, direct expenses, operating supplies such as oil, grease etc.

3. Total cost(TC):- The total of fixed cost and variable costs. TC=FC+VC

4. Total revenue:- The sales amount of goods sold in the market.(Selling Price per unit x No of units sold).

5. Contribution:- The excess of sales revenue over variable cost(C=S-V).

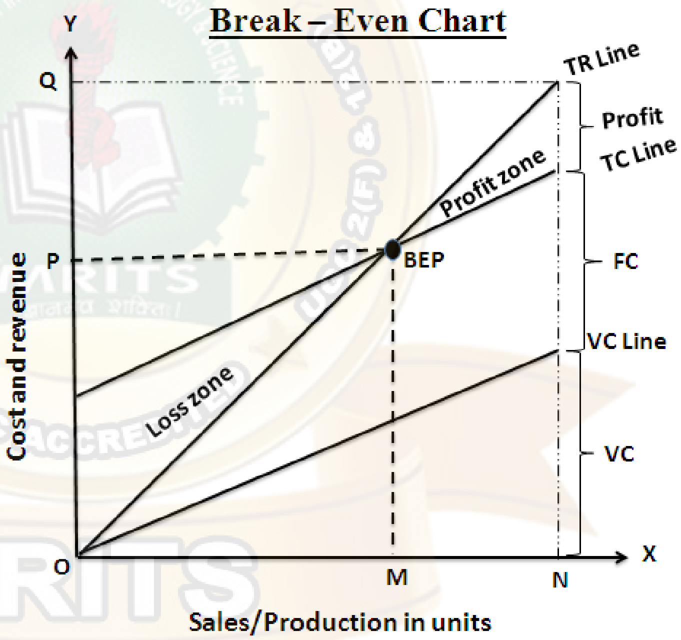
6. P/V Ratio(Profit/Volume Ratio):- The ratio between the contribution and sales:

7. Margin of Safety sales(M/S sales):- The excess of actual total sales over break even sales.

$$\text{M/S sales} = \text{Total sales} - \text{Break even sales} = \frac{\text{P}}{\text{P/V Ratio}}$$

8. Break-even point(BEP):- The point where total revenue is just equal to the total cost is called Break-even point. At break-even point, there is not profit or no loss to the business. Break-even point can be calculated in units as well as in sales.

- BEP sales, C=F
- Below the BEP sales, C=F-P; C<F
- In M/S sales, C=P
- M/S sales =Total sales-BEP sales
- BEP sales=Total sales-M/S sales
- Total sales=BEP sales+M/S sales



We understood from the above BEP graph that:

- In the above figure, units of products/sales are shown on the horizontal axis OX and costs and revenuesare shown on vertical axis OY.
- The variable cost line is drawn first. It increases along with volume of production and sales.
- The total cost line is parallel to variable cost line. It is derived by adding total fixed costs line to thetotal variable cost line.
- The total revenue line (TR) starts from point (0) and increases along with volume of production or salesintersecting total cost line at point BEP.
- To the right of the BEP is profit zone and to the left of the BEP is the loss zone.
- A perpendicular from the BEP to the horizontal axis at point „M" shows „OM" is the quantity producedat „ OP" the cost at BEP.

- The angle formed by the point of intersection of total revenue and total cost line at BEP is called angle of incidence. The greater the angle of incidence, the higher is the magnitude of profit once the fixed costs are observed.
- Margin of safety refers to the excess of production or sales over and above the BEP. The margin of safety „MN" is the difference between ON and OM (ON-OM=MN). The sales value at ON is OQ.

SIGNIFICANCE OF BREAK-EVEN ANALYSIS

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

LIMITATIONS OF BREAK-EVEN ANALYSIS

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

PROBLEMS AND SOLUTIONS:

1. A firm has a fixed cost of Rs. 10,000, selling price per unit is Rs.5 and variable cost per unit is Rs. 3.

a. Determine break-even point in terms of volume and also sales value.

b. Calculate the margin of safety considering that the actual production is 8000 units.

Solution:

$$\boldsymbol{a.} BEP\ (in\ units) = \frac{F}{C\ per\ unit}$$

Note: BEP in units can be calculated only when unit sales price and unit variable cost are given.

$$Contribution\ per\ unit = Selling\ price\ per\ unit - Variable\ cost\ per\ unit = S - V = 5 - 3 = 2$$

$$BEP\ (in\ units) = \frac{F}{C\ per\ unit} = \frac{10000}{2} = 5000\ units$$

$$BEP\ (in\ sales) = \frac{F}{P/V\ ratio}$$

$$P/V\ ratio = \frac{C}{S}\ X\ 100 = \frac{2}{5}\ X\ 100 = 40\%$$

$$BEP\ (in\ sales) = \frac{F}{P/V\ ratio} = \frac{10000}{40\%} = Rs. 25000$$

(or)

$$BEP\ (in\ sales) = BEP\ units\ x\ Selling\ Price\ per\ unit = 5000\ x\ 5 = 25000$$

$$\boldsymbol{b}.Margin\ of\ safety\ \boldsymbol{sales} = \frac{P}{P/V\ ratio}$$

Profit = Total Sales – (Total Variable cost +

Fixed cost)Profit = Contribution – Fixed cost

Contribution = Sales – Variable cost

Total Sales = Total Units sold x Selling price per unit = 8000 x 5 = Rs.

40000Total variable cost x Variable cost per unit = 8000 x 3 = Rs.

24000

Profit = Total Sales – (Total Variable cost + Fixed cost) = 40000 – (24000+10000) = Rs. 6000

$$Margin\ of\ safety\ sales = \frac{P}{P/V\ ratio} = \frac{6000}{40\%} = Rs.\ 15000$$

(or)

Margin of safety sales = Margin of safety units x Selling price per unit

Margin of safety unit = Total units – BEP units = 8000 – 5000 = 3000

Margin of safety sales = Margin of safety units x Selling price per unit = 3000 x 5 = Rs.15000

2. A high-tech rail can carry a maximum of 36,000 passengers per annum at a fare of Rs. 400. The variable cost per passenger is Rs. 150 while the fixed costs are Rs.25,00,000 per year. Find the break-even point in terms of number of passengers and also in terms of fare collections.

Solution:

$$\boldsymbol{a}.BEP\ (in\ number\ of\ passengers) = \frac{F}{C\ per\ unit}$$

$$Contribution\ per\ passenger = Selling\ price\ per\ passenger - Variable\ cost\ per\ passenger$$

$$= S - V = 400 - 150 = 250$$

$$BEP\ (in\ number\ of\ passengers) = \frac{F}{C\ per\ unit} = \frac{2500000}{250} = 10000\ passengers$$

$$\boldsymbol{b}.BEP\ (in\ Fare\ collection) = \frac{F}{P/V\ ratio}$$

$$P/V\ ratio = \frac{C}{S}\ X\ 100 = \frac{250}{400}\ X\ 100 = 62.50\%$$

$$BEP\ (in\ Fare\ collection) = \frac{F}{P/Vratio} = \frac{2500000}{62.50\%} = Rs.\ 4000000$$

Unit- IV

INTRODUCTION TO ACCOUNTING

The purpose of any business is to make profits for that some business activities are to be conducted. You may involve in transactions daily. Any human activity directed at making profit is called business. Business is of different types. It may be trading activity or manufacturing activity. Business may require capital which may be owner‟s capital and borrowed capital. Transactions involve exchange of value like purchase of goods, sale of goods for cash or credit and payment of expenses in the course of production and distribution.

History of Accounting:

Accounting is as old as civilization itself. From the ancient relics of Babylon, it can be will proved that accounting did exist as long as 2600 B.C. However, in modern form accounting based on the principles of Double Entry System came into existence in 17^{th} Century. Fra Luka Paciolo, a mathematician published a book *De computic et scripturies* in 1494 at Venice in Italy. This book was translated into English in 1543. In this book he covered a brief section on „book-keeping‟.

BOOK-KEEPING AND ACCOUNTING

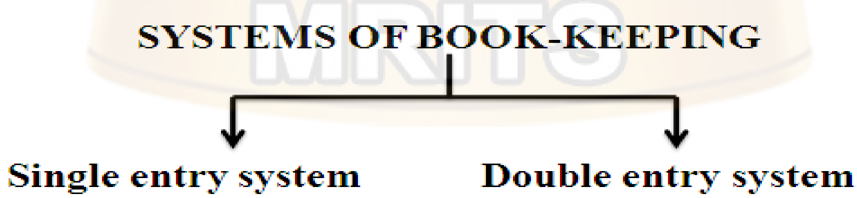
Book – Keeping: Book – Keeping involves the chronological recording of financial transactions in a set of books in a systematic manner.

Accounting: Accounting is concerned with the maintenance of accounts giving stress to the design of the system of records, the preparation of reports based on the recorded date and the interpretation of the reports.

DIFFERENCE BETWEEN BOOK-KEEPING AND ACCOUNTING:

BOOK-KEEPING		**ACCOUNTING**
Concerned with recording of transactions	**1**	Concerned with classifying, summarizing, analyzing and interpreting the data and communicating to the end users
Book-keeper maintains the accounts of particular section	**2**	Accountant maintains the accounts of whole organization
He works under an accountant	**3**	He directs and reviews the work of book-keeper
He has limited knowledge	**4**	He has higher level of knowledge, conceptual understanding, analytical skills
His work is clerical in nature	**5**	His work is executive in nature

SYSTEMS OF BOOK-KEEPING:



1. Single entry system

- It is incomplete system of double entry system.
- Only cash and personal accounts are maintained.

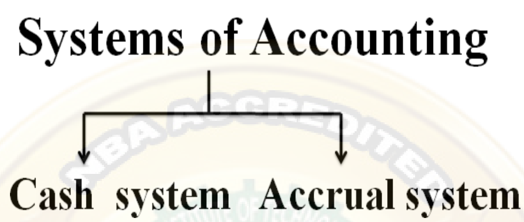
2. Double entry system

- It is only the system that records two aspects of a transaction.
- In this system, the transactions are recorded with the help of “Debit-Credit rules”.

Definition of Accounting:

American Institute of Certified Public Accountants (AICPA): "The art of recording, classifying and summarizing in a significant manner and in terms of money transactions and events, which are in part atleast, of a financial character and interpreting the results thereof."

Thus, accounting is an art of identifying, recording, summarizing and interpreting business transactions of financial nature. Hence accounting is the **Language of Business**.



1. Cash system: Only cash related transactions are recorded. Usually, Government and some professionals use this type of accounting system. Receipts and payments account is prepared. It does notpresent true picture of the financial position of a company.

2. Accrual system: It is also known as mercantile system of accounting. It considers outstanding expenses and incomes It provides clear picture of financial position of a firm. Company"s Act recommended this system to all companies.

BRANCHES OF ACCOUNTING

The important branches of accounting are:

1. **Financial Accounting:** The purpose of Accounting is to ascertain the financial results i.e. profit or loass in the operations during a specific period. It is also aimed at knowing the financial position, i.e. assets, liabilities and equity position at the end of the period. It also provides other relevant information to the management as a basic for decision-making for planning and controlling the operations of the business.

2. **Cost Accounting:** The purpose of this branch of accounting is to ascertain the cost of a product / operation / project and the costs incurred for carrying out various activities. It also assist the management in controlling the costs. The necessary data and information are gatherr4ed form financial and other sources.

3. **Management Accounting :** Its aim to assist the management in taking correct policy decision and to evaluate the impact of its decisions and actions. The data required for this purpose are drawn accounting and cost-accounting.

FUNCTIONS OF AN ACCOUNTANT

The job of an accountant involves the following types of accounting works :

1. **Designing Work :** It includes the designing of the accounting system, basis for identification and classification of financial transactions and events, forms, methods, procedures, etc.

2. **Recording Work :** The financial transactions are identified, classified and recorded in appropriate books of accounts according to principles. This is "Book Keeping". The recording of transactions tends to be mechanical and repetitive.

3. **Summarizing Work :** The recorded transactions are summarized into significant form according to generally accepted accounting principles. The work includes the preparation of profit and loss account, balance sheet. This phase is called „preparation of final accounts‟

4. **Analysis and Interpretation Work:** The financial statements are analysed by using ratio analysis, break-even analysis, funds flow and cash flow analysis.

5. **Reporting Work:** The summarized statements along with analysis and interpretation are communicated to the interested parties or whoever has the right to receive them. For Ex. Share holders.

In addition, the accou8nting departments has to prepare and send regular reports so as to assist themanagement in decision making. This is „Reporting‟.

USERS OF ACCOUNTING INFORMATION

1. **Managers :** These are the persons who manage the business, i.e. management at the top, middle and lower levels. Their requirements of information are different because they make different types of decisions.

   Accounting information also helps the managers in appraising the performance of subordinates.

   As such Accounting is termed as " the eyes and ears of management."

2. **Investors :** Those who are interested in buying the shares of company are naturally interested in the financial statements to know how safe the investment already made is and how safe the proposed investments will be.

3. **Creditors :** Lenders are interested to know whether their load, principal and interest, will be paid when due. Suppliers and other creditors are also interested to know the ability of the firm to pay their dues in time.

4. **Workers :** In our country, workers are entitled to payment of bonus which depends on the size of profit earned. Hence, they would like to be satisfied that he bonus being paid to them is correct. This knowledge also helps them in conducting negotiations for wages.

5. **Customers :** They are also concerned with the stability and profitability of the enterprise. They may be interested in knowing the financial strength of the company to rent it for further decisions relating to purchase of goods.

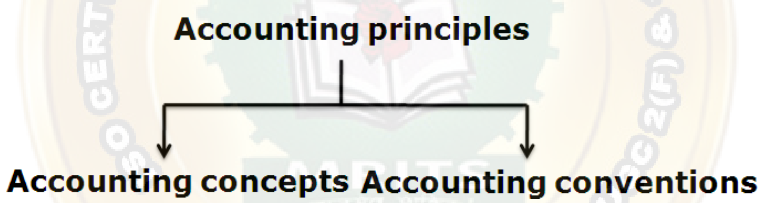
6. **Government:** Governments all over the world are using financial statements for compiling statistics concerning business which, in turn, helps in compiling national accounts. The financial statements are useful for tax authorities for calculating taxes.

7. **Public :** The public at large interested in the functioning of the enterprises because it may make a substantial contribution to the local economy in many ways including the number of people employed and their patronage to local suppliers.

8. **Researchers:** The financial statements, being a mirror of business conditions, is of great interest to scholars undertaking research in accounting theory as well as business affairs and practices.

ACCOUNTING PRINCIPLES

Accounting principles are the rules and regulations which are followed by the accountants at the time of recording the accounting transactions. They help in measuring, recording and summarizing the transactions. These principles are termed as " Generally Accepted Accounting Principles (GAAP) " whichare basic assumptions.



Accounting Concepts:

1. **Business Entity Concept**: In this concept "Business is treated as separate from the proprietor". All the Transactions recorded in the book of Business and not in the books of proprietor. The proprietor is also treated as a creditor for the Business.

2. **Going Concern Concept**: This concept relates with the long life of Business. The assumption is that business will continue to exist for unlimited period unless it is dissolved due to some reasons or the other.

3. **Money_Measurement_Concept**: In this concept "Only those transactions are recorded in accounting which can be expressed in terms of money, those transactions which cannot be expressed in terms of money are not recorded in the books of accounting".

4. **Cost Concept**: Accounting to this concept, can asset is recorded at its cost in the books of account. i.e., the price, which is paid at the time of acquiring it. In balance sheet, these assets appear not at cost price every year, but depreciation is deducted and they appear at the amount, which is cost, less classification.

5. **Accounting Period Concept**: every Businessman wants to know the result of his investment and efforts after a certain period. Usually one-year period is regarded as an ideal for this purpose. This period is called Accounting Period. It depends on the nature of the business and object of the proprietorof business.

6. **Dual Aspect Concept**: According to this concept "Every business transactions has two aspects", one is the receiving benefit aspect another one is giving benefit aspect. The receiving benefit aspect is termed as "DEBIT", where as the giving benefit aspect is termed as "CREDIT". Therefore, for every debit, there will be corresponding credit.

7. **Matching Cost Concept**: According to this concept "The expenses incurred during an accounting period, e.g., if revenue is recognized on all goods sold during a period, cost of those good sole should also be charged to that period.

8. **Realization Concept**: According to this concept revenue is recognized when a sale is made. Sale is considered to be made at the point when the property in goods posses to the buyer and he becomes legally liable to pay.

Accounting Conventions:

1. **Full Disclosure**: According to this convention accounting reports should disclose fully and fairly the information. They purport to represent. They should be prepared honestly and sufficiently disclose information which is if material interest to proprietors, present and potential creditors and investors. The companies ACT, 1956 makes it compulsory to provide all the information in the prescribed form.

2.**Materiality**: Under this convention the trader records important factor about the commercial activities. In the form of financial statements if any unimportant information is to be given for the sake of clarityit will be given as footnotes.

3.**Consistency**: It means that accounting method adopted should not be changed from year to year. It means that there should be consistent in the methods or principles followed. Or else the results of a year Cannot be conveniently compared with that of another.

4. **Conservatism**: This convention warns the trader not to take unrealized income in to account. That is why the practice of valuing stock at cost or market price, whichever is lower is in vague. This is the policy of "playing safe"; it takes in to consideration all prospective losses but leaves all prospective profits.

.CLASSIFICATION OF ACCOUNTS

Three classes of accounts are maintained for recording all business

transactions. They are:1.Personal accounts 2.Real accounts 3.Nominal accounts

1.**Personal Accounts** : Accounts which are transactions with persons are called "Personal Accounts" . Inaccounting, all natural persons and all the firms are considered as persons.

A separate account is kept on the name of each person for recording the benefits received from ,or givento the person in the course of dealings with him.

E.g.: Krishna‟s A/C, Gopal‟s A/C, SBI A/C, Nagarjuna Finanace Ltd.A/C, Obul Reddy & Sons A/C ,HMT Ltd. A/C, Capital A/C, Drawings A/C etc.

2.**Real_Accounts**: The accounts relating to properties or assets are known as "Real Accounts" .Every business needs assets such as machinery , furniture etc, for running its activities .A separate account is maintained for each asset owned by the business .

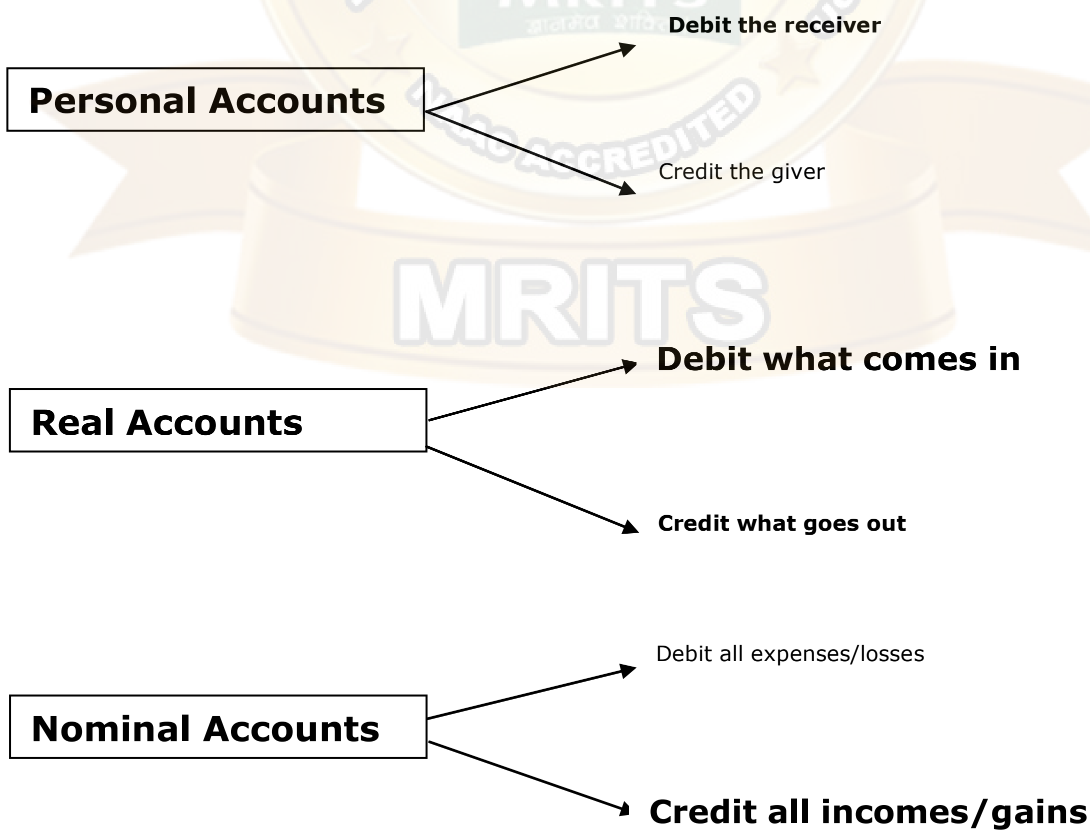
E.g.: cash A/C, furniture A/C, building A/C, machinery A/C etc.

3.**NominalAccounts**:Accounts relating to expenses, losses, incomes and gains are known as "Nominal Accounts". A separate account is maintained for each item of expenses, losses, income or gain.

E.g.: Salaries A/C, stationery A/C, wages A/C, postage A/C, commission A/C, interest A/C, purchases A/C, rent A/C, discount A/C, commission received A/C, interest received A/C, rent received A/C,discount received A/C.

Before recording a transaction, it is necessary to find out which of the accounts is to be debited and which is to be credited. The following three different rules have been laid down for the three classes ofaccounts….

DEBIT, CREDIT RULES



ACCOUNTING EQUATION

The basic accounting equation, also called the balance sheet equation, represents the relationship between the assets, liabilities, and owner's equity of a business. It is the foundation for the double-entry bookkeeping system. For each transaction, the total debits equal the total credits. It can be expressed as further more.

Assets = Liabilities + Equity

In a company, capital represents the shareholders' equity. Since every business transaction affects at least two of a company‟s accounts, the accounting equation will always be "in balance," meaning the left side should always equal the right side. Thus, the accounting formula essentially shows that what the firm owns (its assets) is purchased by either what it owes (its liabilities) or by what its owners invest (its shareholders equity or capital).

For example: A student buys a computer for Rs.1000. To pay for the computer, the student uses Rs.400 in cash and borrows Rs.600 for the remainder. Now his assets are worth Rs.1000, liabilities are Rs.600, and equity Rs.400.
The formula can be rewritten:

Assets - **Liabilities** = (Shareholders' or Owners' **Equity**)

Sometimes we expand the Accounting Equation to show all the Equity components. This is called the

Expanded Accounting Equation.

$$\text{Assets} = \text{Liabilities} + \overbrace{\text{Owner, Capital} - \text{Owner, Withdrawals} + \text{Revenues} - \text{Expenses}}^{\text{Equity}}$$

Now it shows owners' interest is equal to property (assets) minus debts (liabilities). Since in a company, owners are shareholders, owner's interest is called shareholders' equity

JOURNAL

The first step in accounting therefore is the record of all the transactions in the books of original entryviz., Journal and then posting into ledges.

The word Journal is derived from the Latin word „journ‟ which means a day. Therefore, journal means a

„day Book‟ in day-to-day business transactions are recorded in chronological order.
Journal is treated as the book of original entry or first entry or prime entry. All the business transactions are recorded in this book before they are posted in the ledges. The journal is a complete and chronological(in order of dates) record of business transactions. It is recorded in a systematic manner. The process of recording a transaction in the journal is called "JOURNALISING". The entries made in the book are called "Journal Entries".

The proforma of Journal is given below.

Date	Particulars	L.F	Debit Amount	Credit Amount

Journalize the following examples:

Example 1. Journalize the following transactions in the books of Mr. Ram

2015 Jan 1 Business started with Rs. 10,000

" 2 Cash deposited in the bank Rs. 5,000

" 5 Purchases Rs. 3,000

" 8 Sales Rs. 4,000

" 10 Cash drawn from the bank Rs. 1,000

Date	Particulars	LF	Dr Amount	Cr Amount
2015 Jan 1	**Cash A/C Dr** **To Capital A/C** **(Being the business started)**		**10000**	**10000**
" 2	**Bank A/C Dr** **To Cash A/C** **(Being Cash deposited in the bank)**		**5000**	**5000**
" 5	**Purchases A/C Dr** **To Cash A/C** **(Being purchases made on the cash basis)**		**3000**	**3000**

Proper journal (where the transactions which are not recorded in the above books are recorded) **Record the following transactions in the three columnar (cash, Bank, Discount columns) cash book.Example 1. Prepare a three columnar cash book.**

2015 Jan 1 Manmohan started a business with cash balance of Rs. 10,000 andpaid into bank Rs. 8,000.

3 Bought office furniture by cheque Rs. 3000

5 Sold goods for cash Rs. 1000

8 Anand paid Rs. 600 and was allowed a discount of Rs.60

12 A cheque received from Mani for Rs. 690 and allowed him a discount of Rs. 10; the chequewas deposited into bank.

18 Cash withdrawn from bank for office use Rs. 1000

24 Received a cheque for sales Rs. 1200

Solution: **Three columnar cash book**

Date	Particulars	LF	Discount	Cash	Bank	Date	Particulars	LF	Discount	Cash	Bank
2015 Jan 1	To Cash A/.C			10000	8000	2015 Jan 3	By Furniture A/C				3000
5	To Sales A/C			1000		18	By Cash A/C	c			1000
8	To Anand A/C		60	600		31	By Drawings A/C			100	
12	To Mani A/C		10		690	31	By Salaries A/C			500	
18	To Bank A/C	c		1000							
24	To Sales A/C				1200	31	By Balance (c/d)			12000	5890
			100	12600	9890				200	12600	9890
Feb 1	By Balance (b/d)			12000	5890						

20 Drew cash for personal use Rs. 100; Salaries paid Rs. 500.

Example 2.

2015 Jan 1 ABC firms has cash in hand Rs. 4,000 and balance at bank Rs. 5,000.

2 Deposited cash Rs. 3,500 into bank.

8 Bought goods worth Rs.

8000 from Ram.10 Sold

goods worth Rs. 15000 for

cash.

12 Sold goods to Suresh

for Rs. 500015 Paid Rs.

2000 to Ram on account

18 Withdrew Rs. 1000 from bank for personal use

20 Settled Ram account; he allows a

discount of Rs. 20023 Suresh paid Rs.

4900 in full settlement of account

25 Withdrew Rs. 2000 from

bank for office usePrepare a

three columnar cash book.

Solution: **Three columnar cash book**

Date	Particulars	LF	Discount	Cash	Bank	Date	Particulars	LF	Discount	Cash	Bank
2015 Jan 1	To Opening balances			4000	5000	2015 Jan 2	By Bank A/C	c		3500	
2	To Cash A/C	c			3500	15	By Ram A/C			2000	
10	To Sales A/C			15000		18	By Drawings A/C				1000
23	To Suresh A/C		100	4900		20	By Ram A/C		200	5800	
25	To Bank A/C	c		2000		25	By Cash A/C	c			2000
						31	By Balance (c/d)			14600	5500
			100	25900	8500				200	25900	8500
Feb 1	By Balance (b/d)			14600	5500						

LEDGER

All the transactions in a journal are recorded in a chronological order. After a certain period, if we want toknow whether a particular account is showing a debit or credit balance it becomes very difficult. So, the ledger is designed to accommodate the various accounts maintained the trader. It contains the final or permanent record of all the transactions in duly classified form. “A ledger is a book which contains various accounts.” The process of transferring entries from journal to ledger is called “POSTING”.

Posting is the process of entering in the ledger the entries given in the journal. Posting into ledger is done periodically, may be weekly or fortnightly as per the convenience of the business. The following are the guidelines for posting transactions in the ledger.

1. After the completion of Journal entries only posting is to be made in the ledger.
2. For each item in the Journal a separate account is to be opened. Further, for each new item a newaccount is to be opened.
3. Depending upon the number of transactions space for each account is to be determined in theledger.

4. For each account there must be a name. This should be written in the top of the table. At the endof the name, the word “Account” is to be added.

5. The debit side of the Journal entry is to be posted on the debit side of the account, by startingwith “TO”.

6. The credit side of the Journal entry is to be posted on the debit side of the account, by startingwith “BY”.

Proforma for ledger: ***LEDGER BOOK*****-----------------Account**

Date	**Particulars**	**JF**	**Amount**	**Date**	**Particulars**	**JF**	**amount**
	To				**By**		

Example:

Enter the following transactions in journal and post them into ledger:

2017 Jan. 1 Mr. Rameh started business with cash Rs.100,000
2 He purchased furniture for Rs.20,000
3 He purchased goods for Rs.60,000
5 He sold goods for cash Rs.80,000
6 He paid salaries Rs.10,000

Date	Particular	L.F	Amount	Amount
2017				
Jan. 1	Cash A/C..........Dr.		100,000	
	To Capital			100,000
	(Being capital brought in)			
2	Furniture A/C. ....Dr.		20,000	
	To Cash A/C			20,000
	(Being furniture purchased for cash)			
3	Purchases A/C ....Dr.		60,000	
	To Cash A/C			60,000
	(Goods purchased for cash)			
5	Cash A/C..........Dr.		80,000	
	To Sales A/C			80,000
	(Sold goods for cash)			
6	Salaries A/C ....Dr.		10,000	
	To Cash A/C			10,000
	(Salaries paid)			

Cash Account

Date	Particular	Amount	Date	Particulars	Amount
2017			2017		
Jan.1	To Capital A/C	100,000	Jan.2	By Furniture A/C	20,000
Jan.5	To Sales A/C	80,000	Jan.3	By Purchases A/C	60,000
			Jan.6	By Salaries A/C	10,000
				By Balance c/d	90,000
		180,000			**180,000**

Capital Account

Date	Particular	Amount	Date	Particulars	Amount
2017			2017		
Jan.6	To Balance c/d	100,000	Jan.1	By Cash A/C	100,000
		100,000			**100,000**

Furniture Account

Date	Particular	Amount	Date	Particulars	Amount
2017			2017		
Jan.2	To Cash A/C	20,000	Jan.6	By Balance c/d	20,000
		20,000			**20,000**

Purchases Account

Date	Particular	Amount	Date	Particulars	Amount
2017			2017		
Jan.3	To Cash A/C	60,000	Jan.6	By Balance c/d	60,000
		60,000			**60,000**

Sales Account

Date	Particular	Amount	Date	Particulars	Amount
2017			2017		
Jan.6	To Balance c/d	80,000	Jan.5	By Cash A/C	80,000
		80,000			**80,000**

Salaries Account

Date	Particular	Amount	Date	Particulars	Amount
2017			2017		
Jan.6	To Cash A/C	10,000	Jan.6	By Balance c/d	10,000
		10,000			**10,000**

TRIAL BALANCE

According to double entry system every debit has corresponding credit. All the debit balances are equal to credit balances. If they don‟t agree, it is understood that some mistakes are committed somewhere. Trial Balance is a statement in which debit and credit balances of all ledger accounts are shown to list the arithmetical accuracy of the books of accounts.

Features of trial balance

- ✓ It is not account.
- ✓ It contains debit and credit balances of accounts.
- ✓ It helps in preparation of final accounts.
- ✓ Both debit and credit side of a trial balances are always equal.

Format of the trial balance

Particulars	**Debit Amount**	**Particulars**	**Credit Amount**
Balances of all assets,Expenses, Losses	xxxx	Balances of all liabilities,Incomes, Gains, Reserves	xxxx

(Or)

Particulars	**Debit Amount**	**Credit Amount**

Format of Trial Balance as on December 31st, 201X

Debit balances	Rs	Credit balances	Rs
Debtors	xxxx	Creditors	xxxx
All assets	xxxx	All liabilities	xxxx
All expenses	xxxx	All incomes and gains	xxxx
All losses	xxxx	Profits account	xxxx
Purchases	xxxx	Loan account	xxxx
Sales returns	xxxx	Bank over draft	xxxx
Drawings	xxxx	Sales	xxxx
stock	xxxx	Purchase returns	xxxx
Bills receivables	xxxx	Provision for doubtful debts	xxxx
Prepaid expenses	xxxx	Provision for discount on debtors	xxxx
Incomes receivables	xxxx	All reserves and surpluses	xxxx
All intangible assets	xxxx	Bills payables	xxxx
		Outstanding expenses	xxxx
		Incomes received in advance	xxxx
		Capital	xxxx
	xxxx		**xxxx**

Prepare the Trial Balances for the following examples:

Example 1. Prepare a trial balance as on 31-12-2014 from the below information.

Particulars	Rs	Particulars	Rs
Sundry debtors	32000	Bills payable	7500
Stock	22000	Purchases	218870
Cash in hand	35	Cash at bank	1545
Plant and machinery	17500	Sundry creditors	10650
Trade expenses	1075	Sales	234500
Salaries	2225	Carriage outward	400
Rent	900	Discounts (Dr)	1100
Capital	79500	Premises	34500

Solution: **Trial Balance as on 31-12-2014**

Debit balances	Rs	Credit balances	Rs
Sundry debtors	32000	Bills payable	7500
Stock	22000	Sales	234500
Cash in hand	35	Sundry creditors	10650
Plant and machinery	17500	Capital	79500
Trade expenses	1075		
Cash at bank	1545		
Rent	900		
Salaries	2225		
Purchases	218870		
Carriage outward	400		
Discounts	100		
Premises	34500		
	332150		**332150**

Example 2. Make a trial balance from the below balances of accounts.

Particulars	Rs	Particulars	Rs
Capital	100000	Machinery	30000
Stock	16000	Wages	50000
Carriage inward	500	Salaries	5000
Factory rent	2400	Repairs	400
Fuel and power	2500	Buildings	40000
Sundry debtors	20000	Sales	203600
Purchases	122000	Creditors	12500
Returns outwards	2000	Returns inwards	3600
Drawings	2000	Discount allowed	750
Discount received	250	Office expenses	1000
Manufacturing expenses	600	Bills payable	3000
Bills receivable	5000	Cash in hand	2400
Cash at bank	15400	Office rent	1800

Solution: **Trial Balance as on -------------------**

Debit balances	Rs	Credit balances	Rs
Machinery	30000	Capital	100000
Stock	16000	Sales	203600
Wages	50000	Creditors	12500
Carriage inward	500	Returns outwards	2000
Salaries	5000	Discount received	250
Factory rent	2400	Bills payable	8500
Repairs	400		
Fuel and power	2500		
Buildings	40000		
Sundry debtors	20000		
Purchases	122000		
Returns inwards	3600		
Drawings	2000		
Discounts allowed	750		
Office expenses	1000		
Manufacturing expenses	600		
Bills receivable	5000		
Cash in hand	2400		
Cash at bank	15400		
Office rent	1800		
	321350		**321350**

FINAL ACCOUNTS

In every business, the business man is interested in knowing whether the business has resulted in profit or loss and what the financial position of the business is at a given time. In brief, he wants to know (i)The profitability of the business and (ii) The soundness of the business.

The trader can ascertain this by preparing the final accounts. The final accounts are prepared from the trial balance. Hence the trial balance is said to be the link between the ledger accounts and the final accounts. The final accounts of a firm can be divided into two stages. The first stage is preparing the trading and profit and loss account and the second stage is preparing the balance sheet.

TRADING ACCOUNT

The first step in the preparation of final account is the preparation of trading account. The main purpose of preparing the trading account is to ascertain gross profit or gross loss as a result of buying and selling the goods.

Finally, a ledger may be defined as a summary statement of all the transactions relating to a person , asset, expense or income which have taken place during a given period of time. The up-to-date state of any account can be easily known by referring to the ledger.

PROFIT AND LOSS ACCOUNT:

The business man is always interested in knowing his net income or net profit.Net profit represents the excess of gross profit plus the other revenue incomes over administrative, sales, Financial and other expenses. The debit side of profit and loss account shows the expenses and the credit side the incomes. If the total of the credit side is more, it will be the net profit. And if the debit side is more, it will be net loss.

Format of Trading and Profit & Loss A/C of ……….for the year ending ……………..

Particulars	Amount	Particulars	Amount
To Opening stock	xxxx	By Sales xxxx	
To Purchases xxxx		Less: Returns xxxx	xxxx
Less: Returns xxxx	xxxx	By Closing stock	xxxx
To Carriage inwards	xxxx	By Gross loss (c/d)	xxxx
To Freight, cartage	xxxx		
To Customs duty	xxxx		
To Clearing charges	xxxx		
To Octroi	xxxx		
To Wages	xxxx		
To Gas, water, coal, light	xxxx		
To Factory rent	xxxx		
To Works manager salary	xxxx		
To Factory supervision	xxxx		
To consumable stores	xxxx		
To Plant depreciation	xxxx		
To Gross profit (c/d)	xxxx		
	xxxx		xxxx
To Gross loss(b/d)	xxxx	By Gross profit(b/d)	xxxx
To Salaries	xxxx	By Discount received	xxxx
To Rent, Taxes	xxxx	By Interest received	xxxx
To Insurance	xxxx	By Dividend received	xxxx
To Printing stationery	xxxx	By Rent received	xxxx
To Advertisement	xxxx	By Commission received	xxxx
To Carriage outward	xxxx	By Net loss (c/d)	xxxx
To Bad debts	xxxx		xxxx
To Repairs	xxxx		xxxx
To Depreciation	xxxx		xxxx
To Discount allowed	xxxx		xxxx
To Commission allowed	xxxx		xxxx
To Interest paid	xxxx		xxxx
To Provision for doubtful debts	xxxx		xxxx
To Postage	xxxx		xxxx
To General expenses	xxxx		xxxx
To Net profit (c/d)	xxxx		xxxx

	xxxx		xxxx

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.

A balance sheet is an item wise list of assets, liabilities and proprietorship of a business at a certain state.

Balance Sheet of……………....company as on ……………...

Capital & Liabilities	**Amount**	**Assets**	**Amount**
Capital xxxx		Land and buildings	xxxx
Add: Net profit xxxx		Furniture	xxxx
xxxx		Plant and machinery	xxxx
Less: Drawings xxxx	xxxx	Land	xxxx
Loans	xxxx	Vehicles	xxxx
Bank Over Draft	xxxx	Debtors	xxxx
Bills payable	xxxx	Investments	xxxx
Creditors	xxxx	Bills receivables	xxxx
Outstanding expenses	xxxx	Goodwill	xxxx
Incomes received in advance	xxxx	Patents	xxxx
All reserves	xxxx	Copyright	xxxx
		Trade marks	xxxx
		Prepaid expenses	xxxx
		Incomes receivables	xxxx
		Securities	xxxx
		Closing stock	xxxx
		Cash in hand	xxxx
		Cash at bank	xxxx

	XXXX	XXXX

IMPORTANT ADJUSTMENTS:

1. Outstanding expenses

a) Add to respective expense account in Trading & Profit & Loss account

b) Show as a liability in Balance Sheet

Note:- If it is given only in trial balance, show as a liability in the balance sheet

2. Prepaid expenses

a) Deduct from the respective expenses account in Trading and P/L account

b) Show as an asset in Balance Sheet

Note:- If it is given only in trial balance, show only as an asset in B/S

3. Accrued incomes or incomes receivables

a) Add to the respective income A/C in P/L Account

b) Show as an asset in B/S

Note:- If it is only given in trial balance, show as an asset in B/S

4. Incomes received in advance

a) Deduct from the respective income A/C in P/L Account

b) Show as a liability in B/S

Note:- It is given only in trial balance, show as a liability in B/S

5. Closing stock

a) Show on the credit side of trading A/C

b) Show as an asset in B/S

Note:- If it is given only in trial balance, show as an asset in B/S

INT ON CAPITRAL

c) Interest on capital
d) Show on the debit side of P/L A/C

e) Add to capital in B/S

Note:- If it is given only in trial balance, show only in P/L A/C

6. Depreciation

a) Show on the debit side of P/L A/C

b) Deduct from respective asset in B/S

Note:- If it is given only in trial balance, show only on the debit side of P/L A/C**)**

7. I) Bad debts (when given only in adjustments)

a) Show on the debit side of P/L A/C

b) Deduct from debtors in B/S

II) Bad debts (when given only in trial balance)

Show on the debit side of P/L A/C only

III) Bad debts (when given in both trial balance and adjustments)

a) Add " Bad debts given in adjustments" to " Bad debts in trial balance" on the debit side of P/LA/C

b) Deduct " Bad debts in adjustments" from the debtors in B/S

c)

8. Provision/Reserve for bad debts (RBD)

A) When RBD is given only in trial balance

a) Deduct from the debtors in B/S

B) When RBD is given only in adjustments

a) Show on the debit side of P/L A/C

b) Deduct from the debtors in B/S

C) When RBDs are given in both trial balance (RBD old) and adjustments (RBD New)

a) Compare both RBDs, show the difference on the debit side of P/L A/C if RBD new is excessthan RBD old. Show the difference on the credit side of P/L A/C in RBD old is excess than RBD new.

b) Deduct always only RBD new from debtors in B/S

PROCEDURE FOR PREPARING TRADING ACCOUNT

1. Show opening stock and net purchases (purchases less purchase returns) on the debit side.
2. Show net sales (sales – sales returns) and the closing stock given in the adjustments on the creditside.
3. Show all the direct expenses with adjustments on the debit side.
4. Balance the account and carry forward the balance to P/L A/C

PROCEDURE FOR PREPARING PROFIT AND LOSS ACCOUNT

1. Show all the remaining expenses with adjustments on the debit side.
2. Show all the remaining incomes with adjustments on the credit side
3. See whether all adjustments are taken once in any of the Trading Account and Profit & LossAccount

4. Balance the P/L A/C and transfer the balance to capital in B/S

PROCEDURE FOR PREPARING BALANCE SHEET

1. Show all the assets with adjustments on the assets side.
2. Show all the liabilities with adjustments on the liabilities side.
3. See whether all items of trial balance are taken once and whether all adjustments are taken twice.
4. Add both the columns of assets and liabilities.

Example 1: From the following trial balance and additional information of Mr. Arun, prepare his final accounts for the year ending31-3-2015.

Particulars	Rs	Particulars	Rs
Building	280000	Capital	250000
Furniture	60000	Sales	265000
Opening stock	25000	Bank loan	100000
Advertising	5000	Commission	6000
Salaries	14000	Creditors	8000
Wages	3000		
Purchases	190000		
Discount	4000		
Bad debts	2000		
Interest on loan	6000		
Returns inwards	10000		
Debtors	30000		
	629000		629000

Adjustments:

1. Stock on 31-3-2015 was Rs. 35000.
2. Wages outstanding Rs. 1000.

Solution: Trading and Profit & Loss A/C of Mr. Kiran for the year ending 31-3-2015.

Dr | Cr

Particulars	Amount	Particulars	Amount
To Opening Stock	25000	By Sales 265000	
To Purchases	190000	Less: Returns 10000	255000
To Wages 3000		By Closing Stock	35000
Add: Outstanding 1000	4000		
To Gross Profit (b/d)	71000		
	290000		**29000**
To Salary	14000	By Gross Profit (c/d)	71000
To Advertisement	5000	By Commission	6000
To Discount	4000		
To Interest on loan	6000		
To Bad debts	2000		
To Net Profit (c/d)	46000		
	77000		**77000**

Balance Sheet of Mr. Arun as on 31-3-2015.

Liabilities & Capital	Amount	Assets	Amount
Capital 250000		Building	280000
Add: Net Profit 46000	296000	Furniture	60000
Outstanding wages	1000	Debtors	30000
Bank loan	100000	Closing Stock	35000
Creditors	8000		
	405000		**405000**

Example 2: From the following data and additional information of Mr. Kiran, prepare his final accounts for the year ending 31-3-2015.

Building	70000	Carriage inwards	1291
Furniture	1640	Establishment expenses	2135
Debtors	15600	Carriage outwards	800
Creditors	18852	Insurance	783
Stock	15040	Interest (Cr)	340
Cash in hand	988	Bad debts	613
Cash at bank	24534	Audit fee	400
Bills receivables	5844	General expenses	3050
Purchases	85522	Discount (Dr)	945
Sales	121850	Investments	8922
Capital	92000	Returns inwards	285
Bills payable	6250	Rent	900

Adjustments:

1. Stock on 31-3-2015 was Rs. 35000.
2. Prepaid insurance Rs. 100.
3. Depreciation on furniture Rs. 10%
4. Interest accrued but not received Rs. 100

Solution: Trading and Profit & Loss A/C of Mr. Kiran for the year ending 31-3-2015.

Dr | Cr

Particulars		Amount	Particulars		Amount
To Opening Stock		15040	By Sales	121850	
To Purchases		85522	Less: Returns	285	121565
To Carriage inward		1291	By Closing Stock		35000
To Gross Profit (b/d)		54712			
		156565			**156565**
To Establishment expenses		2135	By Gross Profit (c/d)		54712
To Carriage outward		800	By Interest	340	
To Insurance	783		Add: Interest to be received	100	440
Less: Prepaid	100	683			
To Bad debts		613			
To Audit fee		400			
To General expenses		3050			
To Discount		945			
To Rent		900			
To Depreciation on plant		164			
To Net Profit (c/d)		45462			
		55152			**55152**

Balance Sheet of Mr. Kiran as on 31-3-2015.

Liabilities & Capital		Amount	Assets		Amount
Capital	92000		Building		70000
Add: Net Profit	45462	137462	Furniture	1640	
Creditors		18852	Less: Depreciation	164	1476
Bills payables		6250	Debtors		15600
			Cash in hand		988
			Cash at bank		24534
			Bills receivables		5844
			Investments		8922
			Closing stock		35000
			Prepaid insurance		100
			Interest accrued		100
		162564			**162564**

Example 3: From the following trial balance and additional information, prepare final accounts for the year ending 31-12-2014.

Particulars	Rs	Particulars	Rs
Sundry debtors	64000	Discount received	9000
Stock (1-1-2014)	44000	Bank over draft	15000
Cash in hand	3160	Long term loan	25300
Wages	35000	Sales	365000
Trade expenses	2150	Capital	150000
Gas, water, power	4450		
Sales returns	800		
Bank charges	1800		
Purchases	237740		
Advertisements	2200		
Premises	160000		
Drawings	9000		
	564300		564300

Adjustments:

1. Bank charges outstanding Rs.150,

2.Write off bad debts Rs. 500

3. Provide 5% for doubtful debts.

Solution: Trading and Profit & Loss A/C for the year ending 31-12-2014.

Dr | Cr

Particulars		Amount	Particulars		Amount
To Opening Stock		44000	By Sales	365000	
To Purchases		237740	Less: Returns	800	364200
To Wages		35000			
To Trade expenses		2150			
To Gas, water, power		4450			
To Gross Profit (b/d)		40860			
		364200			**364200**
To Bank charges	1800		By Gross Profit (c/d)		40860
Add: Outstanding	150	1950	By Discount		9000
To Advertisements		2200			
To Bad debts		500			
To Provision for bad debts (64000-500)x5/100		3175			
To Net Profit (c/d)		42035			
		49860			**49860**

Balance Sheet as on 31-12-2014.

Liabilities & Capital		Amount	Assets		Amount
Capital	150000		Debtors	64000	
Add: Net Profit	42035		Less: Bad debts	500	
	192035			63500	
Less: Drawings	9000	183035	Less: Provision for		
Bank Over Draft		15000	bad debts	3175	60325
Long term loans		25300	Cash in hand		3160
Bank charges outstanding		150	Premises		160000
		223485			223485

Example 4: From the following data prepare final accounts for the year ending 31-12-2014.

Particulars	Rs	Rs
Drawings and capital	12000	80000
Opening stock	12000	
Investments	30600	
Stationery	12000	
Carriage	3000	
Returns	6000	2600
Purchases and sales	120000	160000
Loans	2400	10000
Debtors and creditors	60000	25000
Discount allowed	2200	
Freight in	10400	
Freight out	6000	
Charity	28000	
Reserve for doubtful debts		2000
Bills payables		25000
	304600	**304600**

Adjustments:

1. Closing stock Rs. 20000
2. Appreciate investment by 10%
3. Maintain reserve for doubtful debts at the rate of 5%
4. Provide 5% as interest on capital

Solution: Trading and Profit & Loss A/C for the year ending 31-12-2014.

Dr | | | Cr

Particulars		Amount	Particulars		Amount
To Opening Stock		12000	By Sales	160000	
To Purchases	12000		Less: Returns	6000	154000
Less: Returns	2600	117400	By Closing stock		20000
To Freight in		10400			
To Gross Profit (b/d)		34200			
		174000			174000
To Stationery		12000	By Gross Profit (c/d)		34200
To Carriage		3000	By Investments appreciation		3060
To Discount		2200	(30600x10/100)		
To Freight out		6000	To Net Loss (c/d)		18940
To Charity		28000			
To Reserve for bad debts (3000-2000)		1000			
To Interest on capital (80000x5/100)		4000			
		56200			56200

Balance Sheet as on 31-12-2014.

Liabilities & Capital		Amount	Assets		Amount
Capital	80000		Investments	30600	
Less: Net Loss	18940		Add: Appreciation	3060	33660
	61060		Loan		2400
Add: Interest	4000		Debtors	60000	
	65060		Less: Reserve for bad debts	3000	57000
Less: Drawings	12000	53060			
Loan		10000	Closing stock		20000
Creditors		25000			
Bills payables		25000			
		113060			113060

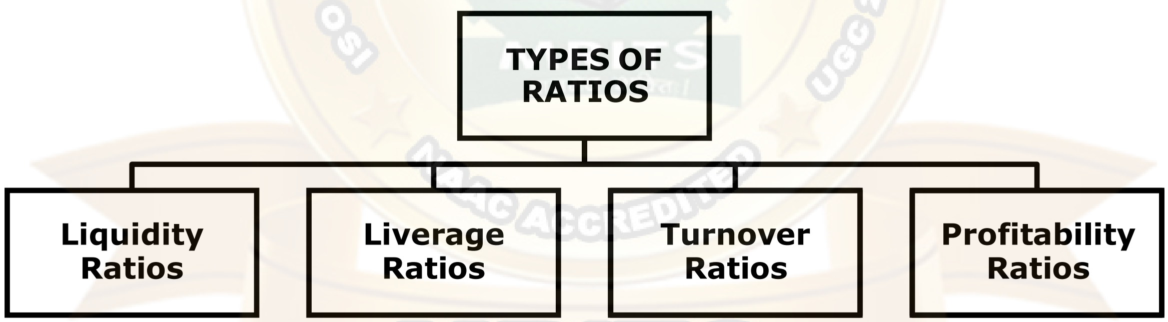
UNIT-5

RATIOS

Absolute figures are valuable but t h e y standing alone convey no meaning unless compared with another. Accounting ratio show inter-relationships which exist among various accounting data. When relationships among various accounting data supplied by financial statements are worked out, they are known as accounting ratios.

What is a ratio?

Ratio analysis is a means for financial analysis. Ratio is a mathematical relationship between two accounting figures. They show the relationship between two items in a more meaningful way which help us to draw certain conclusions. Ratios may be used to compare the previous data, to compare one firm with another firm etc. the ratios can be expressed as percentage or proportion or times based on the natureof ratio.



Problem 1:- The following an extract of a balance sheet of a companyduring the last year. Compute current ratio and quick ratio.

Land and buildings	50000	Plant and machinery	100000
Furniture and fixtures	25000	Closing stock	25000
Sundry debtors	12500	Wages prepaid	2500
Sundry creditors	8000	Rent outstanding	2000

Solution:

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

Current assets = Sundry debtors +Closing stock + Wages prepaid.

= 12500+25000+2500 = 40000

Current liabilities = Sundry creditors + Rent outstanding

= 8000+2000= 1000

$$\text{Current Ratio} = \frac{40000}{10000} = 4:1$$

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

Quick assets = Sundry debtors

= 12500

Current liabilities = Sundry creditors + Rent outstanding

= 8000+2000= 10000

$$\text{Quick Ratio} = \frac{12500}{10000}$$

Quick Ratio = 1.25:1

Problem 2:- Calculate inventory turnover ratio and Average period ofholding the stocks.

Sundry debtors	45000	Closing stock	30000
Sales	400000	Sales returns	20000
Stock as on 1-1-2014	40000	Stock as on 31-12-2014	60000

Solution:

a) **Inventory Turnover Ratio** = $\dfrac{\text{Cost of goods sold}}{\text{Average stock}}$

Cost of goods sold = Opening stock + purchases + manufacturing expenses- closing stock

(or)

= Sales – Gross Profit

Average stock = $\dfrac{\text{Opening stock + Closing stock}}{2}$

Note:- 1. When cost of goods sold is not given, sales amount should be taken into account.

a) Inventory Turnover Ratio $= \dfrac{\text{Cost of goods sold}}{\text{Average stock}}$

$$\text{Average stock} = \frac{\text{Opening stock} + \text{Closing stock}}{2} = \frac{40000 + 60000}{2} = \text{Rs. } 50000$$

$$\text{Inventory Turnover Ratio} = \frac{400000}{50000} = 8 \text{ times}$$

$$\text{b) Inventory holding period} = \frac{365 \text{ days}}{\text{Inventory Turnover Ratio}} = \frac{365}{8} = 46 \text{ days}$$

Problem 3:- Given the following data, calculate debtors and creditorsturnover ratios.

Debtors as on 1-1-2014	8000	Debtors as on 31-12-2014	16000
Creditors as on 1-1-2014	32000	Purchases (60% credit)	150000
Furniture and fixtures	25000	Cash	5000
Creditors as on 31-12-2015	26000		
Sales (75% credit)	250000		

Solution:

a) Debtors Turnover Ratio $= \dfrac{\text{Net credit sales}}{\text{Average debtors}}$

Net credit sales = Sales x 60/100 = 250000 x 75/100 = 187500

Average debtors = (Opening debtors + closing debtors) /2
= (8000 + 16000) /2 =12000

$$\text{Debtors Turnover Ratio} = \frac{187500}{12000} = 15.6 \text{ times}$$

$$\text{b) Debtors Collection Period} = \frac{365 \text{ days}}{\text{Debtors Turnover Ratio}} \quad \frac{365}{15.6} = 23.36 \text{ days}$$

Contd

a) Creditors Turnover Ratio = $\dfrac{\text{Net credit purchases}}{\text{Average Creditors}}$

Net credit purchases = Purchases x 60/100 = 150000 x 60/100 = 90000

Average creditors = (Opening creditors + closing creditors) /2
= (32000 + 26000) /2 =29000

Creditors Turnover Ratio = $\dfrac{90000}{29000}$ = **3.1 times**

b) Creditors payment Period = $\dfrac{\text{365 days}}{\text{Creditors Turnover Ratio}}$ $\dfrac{365}{3.1}$ = **117.74 days**

Problem 4:- Given the following data, calculate current ratio and quickratio

Capital	360000	Debentures	420000
Reserve fund	240000	Creditors	36000
Bank over draft	60000	Rent outstanding	6000
Provision for taxation	78000	Land and buildings	440000
Plant and machinery	235000	Furniture and fixtures	140000
Motor vehicles	105000	Stock	60000
Sundry debtors	90000	Short term investments	75000
Cash at bank	30000	Cash in hand	25000

Solution:

Current assets = Sundry debtors +Cash at bank+ Stock + Short term investments + cash in hand

= 90000+30000+60000 +75000 + 25000 = 280000

Current liabilities = Creditors + Rent outstanding + Bank over draft + Provision for taxation

= 36000+6000 + 60000 + 78000 = 180000

Current Ratio = $\dfrac{\text{Current assets}}{\text{Current Liabilities}} = \dfrac{280000}{180000}$ = **1.55:1**

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

Quick assets = Sundry debtors +Cash at bank + Short term investments + cash in hand

= 90000+30000+75000 + 25000 = 220000

Current liabilities = Creditors + Rent outstanding + Bank over draft + Provision for taxation

= 36000+6000 + 60000 + 78000 = 180000

$$\text{Quick Ratio} = \frac{220000}{180000}$$

Quick Ratio = **1.22:1**

Problem 5:- Given the following data, calculate Debt-equity ratio, Interestcoverage ratio and Proprietary funds to total assets ratio.

Liabilities and Capital	Rs	Assets	Rs
Share Capital:		Motor vehicles	105000
10% Preference Capital	60000	Plant and machinery	235000
Equity shares Capital	300000	Sundry debtors	90000
Reserve fund	240000	Land and buildings	440000
Bank over draft	60000	Furniture and fixtures	140000
Provision for taxation	78000	Stock	60000
15% Debentures	420000	Short term investments	75000
Creditors	36000	Cash in hand	25000
Rent outstanding	6000	Cash at bank	30000
	1200000		1200000

EBIT = Rs. 204000

Solution:

$$\textbf{Debt-Equity Ratio} = \frac{\text{Debt}}{\text{Equity}} = \frac{\text{Outsider's funds}}{\text{Insider's funds}} = \frac{\text{Long term loans}}{\text{Share holders funds/Net worth}}$$

Debt = Debentures = 420000

Equity = Equity capital + Reserve fund

= 300000 + 240000 = 540000

$$\text{Debt-Equity Ratio} = \frac{420000}{540000} = 0.77:1$$

$$\textbf{Interest Coverage Ratio} = \frac{\text{EBIT}}{\text{Interest}} = \frac{\text{PBIT}}{\text{Interest}}$$

Interest = Debentures x 15/100 = 420000 x 15/100 = 63000

$$\textbf{Interest Coverage Ratio} = \frac{204000}{63000} = 3.23 \text{ times}$$

$$\textbf{Proprietors' funds to Total Assets Ratio} = \frac{\text{Proprietors' Funds}}{\text{Total Assets}}$$

Proprietors' Funds = Preference share capital + Equity share capital + Reserve fund

= 60000 + 300000 + 240000

= 600000

Total Assets = 1200000

$$\textbf{Proprietors' funds to Total Assets Ratio} = \frac{600000}{1200000} \times 100 = 50\%$$

Example 6: Calculate Gross Profit Margin, Net Operating Margin andOperating Ratio given the following information.

Sales	1000000	Cost of goodssold	600000
Selling and Administrativecosts	200000	Depreciation	100000

Solution:

Gross Profit Margin = Sales – Cost of Goods Sold = 1000000 – 600000 = 400000

Net Profit Margin = Gross Profit – Selling and Administration costs – Depreciation
= 1000000 – 600000 = 400000

$$\textbf{Operating Ratio} = \frac{\textbf{Operating Cost}}{\textbf{Net Sales}}$$

Operating Cost = (Cost of goods sold + Operating expenses)
= (600000 + 200000 + 100000) = 900000

$$\textbf{Operating Ratio} = \frac{\text{Operating Cost}}{\text{Net Sales}} \times 100 = \frac{900000}{1000000} \times 100 = 90\%$$

Example 7: prepare a balance sheet from the following particulars.

Stock velocity	: 6
Gross profit margin	: 20%
Capital turnover ratio	: 2
Fixed assets turnover	: 4
Debt collection period	: 2 months
Creditors payment period	: 73 days
Gross profit	: Rs. 60000
Excess of closing stock over opening was :	Rs. 5000

Solution

$$\textbf{Gross Profit Ratio} = \frac{\textbf{Gross Profit}}{\textbf{Net Sales}}$$

$$\textbf{20\%} = \frac{\textbf{60000}}{\textbf{Net Sales}}$$

Net Sales = Gross Profit x Gross Profit Ratio = 60000 x 20% = 300000

$$\textbf{Stock Turnover Ratio} = \frac{\textbf{Cost of Goods Sold}}{\textbf{Average Stock}}$$

Cost of Goods Sold = Net Sales – Gross Profit = 300000-60000=240000

$$\textbf{Average Stock} = \frac{\textbf{Cost of Goods Sold}}{\textbf{Stock Turnover Ratio}} = \frac{\textbf{240000}}{\textbf{6}} = \textbf{40000}$$

$$\text{Average Stock} = \frac{\text{Opening Stock} + \text{Closing Stock}}{2}$$

Let us suppose that Opening Stock is 'x', then

$$40000 = \frac{x + (x + 5000)}{2}$$

$$40000 \times 2 = 2x + 5000$$

$$80000 - 5000 = 2x$$

$$x = \frac{75000}{2} = 37500$$

Opening Stock = 37500

Closing Stock = Opening Stock + 5000

Closing Stock = 37500 + 5000 = 42500

$$\text{Capital Turnover Ratio} = \frac{\text{Cost of sales}}{\text{Capital}}$$

$$\text{Capital} = \frac{\text{Cost of sales}}{\text{Capital Turnover Ratio}}$$

$$\text{Capital} = \frac{240000}{2} = 12000$$

$$\text{Fixed Assets Turnover Ratio} = \frac{\text{sales}}{\text{Fixed Assets}}$$

$$\text{Fixed Assets} = \frac{\text{sales}}{\text{Fixed Assets Turnover Ratio}}$$

$$\text{Capital} = \frac{300000}{4} = 75000$$

$$\text{Debtors Collection Period} = \frac{\text{365 Days/12 Months}}{\text{Debtors Turnover Ratio}}$$

$$\text{Debtors Turnover Ratio} = \frac{\text{12 Months}}{\text{Debt Collection Period}} = \frac{12}{2} = 6$$

$$\text{Debtors Turnover Ratio} = \frac{\text{Net Credit sales/Sales}}{\text{Average Debtors/Debtors}}$$

$$\text{Debtors} = \frac{\text{Sales}}{\text{Debtors Turnover Ratio}} = \frac{30000}{6} = 50000$$

$$\text{Creditors Payment Period} = \frac{\text{365 Days/12 Months}}{\text{Creditors Turnover Ratio}}$$

$$\text{Creditors Turnover Ratio} = \frac{\text{12 Months}}{\text{Creditors Payment Period}} = \frac{365}{73} = 5$$

$$\text{Creditors Turnover Ratio} = \frac{\text{Net Credit Purchases/Purchases}}{\text{Average Creditors/Creditors}}$$

Purchases = Sales + Closing Stock – Opening Stock – Gross Profit

Purchases = 300000 + 42500 – 37500 – 60000 = 245000

$$\text{Creditors} = \frac{\text{Purchases}}{\text{Creditors Turnover Ratio}} = \frac{245000}{5} = 49000$$

Balance Sheet

Liabilities & Capital	Amount	Assets	Amount
Capital	120000	Fixed Assets	75000
Creditors	49000	Debtors	50000
		Closing Stock	42500
		Cash in hand(b/f)	1500
	169000		169000

USES OR ADVANTAGES OR IMPORTANCE OF RATIO ANALYSIS

Ratio Analysis stands for the process of determining and presenting the relationshipof items and groups of items in the financial statements. It is an importanttechnique of financial analysis. It is a way by which financial stability and health ofa concern can be judged. The following are the main uses of Ratio analysis:

(a)Useful in financial position analysis: Accounting reveals the financial positionof the concern. This helps banks, insurance companies and other financial institution in lending and making investment decisions.

(ii) Useful in simplifying accounting figures: Accounting ratios simplify, summaries and systematic the accounting figures in order to make them more understandable and in lucid form.

(iii) Useful in assessing the operational efficiency: Accounting ratios helps to have an idea of the working of a concern. The efficiency of the firm becomes evident when analysis is based on accounting ratio. This helps the management to assess financial requirements and the capabilities of various business units.

(iv) Useful in forecasting purposes: If accounting ratios are calculated for number of years, then a trend is established. This trend helps in setting upfuture plans and forecasting.

(v) Useful in locating the weak spots of the business: Accounting ratios are of great assistance in locating the weak spots in the business even through the overall performance may be efficient.

(vi) Useful in comparison of performance: Managers are usually interested to know which department performance is good and for that he compare one department with the another department of the same firm. Ratios also help him to make any change in the organisation structure.

LIMITATIONS OF RATIO ANALYSIS

1. **False results if based on incorrect accounting data**: Accounting ratioscan be correct only if the data (on which they are based) is correct. Sometimes, the information given in the financial statements is affected by window dressing, i. e. showing position better than what actually is.
2. **No idea of probable happenings in future**: Ratios are an attempt to make an analysis of the past financial statements; so they are historical documents.Now-a-days keeping in view the complexities of the business, it is importantto have an idea of the probable happenings in future.
3. **Variation in accounting methods**: The two firms' results are comparable with the help of accounting ratios only if they follow the some accounting methods or bases. Comparison will become difficult if the two concerns follow the different methods of providing depreciation or valuing stock.
4. **Price level change**: Change in price levels make comparison for various years difficult.
5. Only one method of analysis: Ratio analysis is only a beginning and gives justa fraction of information needed for decision-making so, to have a comprehensive analysis of financial statements, ratios should be used along with other methods of analysis.
6. **No common standards**: It is very difficult to by down a common standard for comparison because circumstances differ from concern to concern and the nature of each industry is different.
7. **Different meanings assigned to the some term:** Different firms, in order to calculate ratio may assign different meanings. This may affect the calculation of ratio in different firms and such ratio when used for comparison may lead to wrong conclusions.
8. **Ignores qualitative factors**: Accounting ratios are tools of quantitative analysis only. But sometimes qualitative factors may surmount the quantitative aspects. The calculations derived from the ratio analysis under such circumstances may get distorted.
9. **No use if ratios are worked out for insignificant and unrelated figure:** Accounting ratios should be calculated on the basis of cause and effectrelationship. One should be clear as to what cause is and what effect is beforecalculating a ratio between two figures.

B) ASSSIGNMENT QUESTIONS

Unit-1

1. Define finance? Explain the different sources of finance?
2. What is inflation explain the types of inflation?
3. What is national income? Explain the importance of national income?
4. Define business explain the classification of business?
5. Explain the nature and scope of business economics

Unit-2

1. Define law of demand? Explain assumptions and exceptions of law of demand?
2. Demand forecasting methods in detail?
3. Define demand explain the types of demand? What are the factors influencing demand ?
4. Define elasticity of demand? Explain different types of elasticity of demand ?

Unit -3

1. Explain how a firm attains equilibrium in the short run and in the long run under conditions of perfect competition?
2. Explain the following with the help of the table and diagram under perfect competition and monopoly

(a) Total Revenue

(b) Marginal Revenue

(c) Average Revenue

3. Define monopoly. How is price under monopoly determined?
4. Explain various types of pricing strategies

Unit-4

1. Give a brief account on the important records of Accounting under Double Entry System and discuss briefly the scope of each?

2. Explain the purpose of preparing the following accounts/statements and also elaborate the various items that appear in each of them.

   a) Trading Account

   b) Profit & Loss Account

   c) Balance Sheet

3. Explain various accounting concepts in detail with suitable examples?

4. Journalize the following transactions and post them into ledgers.

   a. He bought goods worth Rs. 2000 from shyam.

   b. He bought a machine for Rs. 5000 from Lakshman on account.

   c. He paid to Lakshman Rs. 2000

   d. He sold goods for cash Rs.3000

   e. He sold goods to A on account Rs. 4000

   f. He paid to Shyam Rs. 1000

   g. He received amount from A Rs. 2000

Unit- 5

1.Write a brief note on the importance of ratio analysis to different category of users?

2. Explain and illustrate the types and significance of a) Leverage ratios b) Turnover ratios.

3. Explain how ratios are used in the interpretation of financial statements and in financial analysis.

4. 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?

C) Short Long Answer Question with Blooms Taxonomy Levels

Long Answer Questions-

UNIT-1

S.No	Question	Blooms Taxonomy Level	Course Outcome
1	**Explain** the sources of Capital for a Company and what are the non-conventional sources of finance?	Understand	1
2	What are the types of Business Organizations and explain in detail?	Remember	1
3	What is the meaning of Business Cycle and what are the phases of Business Cycle?	Remember	1
4	Define Business Economics (BE)? Explain its nature and scope.?	Understand	1
5	Explain the business economics have any links with any other disciplines?		1
6	Explain the importance of national income ?	Understand	1

Short Answer Questions-

S.No	Question	Blooms Taxonomy Level	Course Outcome
1	Define Business Economics	Remember	1
2	What is the structure of Business Firm?	Remember	1
3	What are the types of Business Entities?	Remember	1
4	What is the difference between Micro Economics and Macro Economics?	Remember	1
5	. What is the meaning of Limited Liability Companies?	Remember	1
6	Explain National Income?	Understand	1

UNIT II

Long Answer Questions-

S.No	Question	Blooms Taxonomy Level	Course Outcome
1	What is demand analysis, its nature and types of demand ?	Remember	2
2	What do you understand by elasticity of demand	Remember	2
3	What do you understand by demand forecasting?	Remember	2
4	Explain different methods of demand forecasting?	Understand	2
5	Explain the factors governing elasticity of demand?	Understand	2

Short Answer Questions-

S.No	Question	Blooms Taxonomy Level	Course Outcome
1	Discuss the determinants of Demand?	Remember	2
2	Define Elasticity of Demand	Remember	2
3	Give a short note on Statistical method	Remember	2
4	What is Demand forecasting?	Remember	2
5	What are the determinants of Supply?	Remember	2

UNIT III

Long Answer Questions-

S.No	Question	Blooms Taxonomy Level	Course Outcome
1	write Short notes with graphs on the following: (a) Isoquants and their features (b) CobbDouglas production function (c) Law of increasing returns	Remember	3
2	Explain Law of returns with appropriate examples and discuss the economies of scale that accrue to a firm.	Remember	3
3	Explain the different cost concepts used in the process of cost analysis.	Remember	3
4	Explain how the short run and long run influence the cost.	Remember	3
5	What is Break Even Point (BEP)? How do you determine it	Remember	3

Short Answer Questions

S.No	Question	Blooms Taxonomy Level	Course Outcome
1	Define Production Management	Remember	3
2	Define Skimming and Penetration Pricing	Remember	3
3	Define Perfect competition	Understand	3
4	Distinguish Output costs vs Input costs	Understand	3
5	Discuss pricing strategies	Understand	3

UNIT IV

Long Answer Questions-

S.No	Question	Blooms Taxonomy Level	Course Outcome
1	Prepare Trail Balance from the following information in the Books of Hrishikesh: Sundry debtors - 14,000; Hrishikesh Capital A/c - 15,000; Interest from bank A/c 750; Discount received – 100; Sales returns a/c - 100; Purchase returns a/c - 200; Bank A/c - 9,500; Rent A/c - 1,000; Salaries A/c - 400; Wages A/c - 50; Purchase A/c - 2000; Sales A/c - 11,000.	Apply	4
2	Journalize the following in the books of Rama Krishna Ltd for the year ended 31-Mar-2012 and also prepare ledger accounts for the same. (All Amounts in Rs.) March 1 Rama Krishna commenced business with 40,000 March 1 Deposited into bank 15,000 March 5 Purchase goods for cash 15,000 March 7 Purchase goods from Sirisha 8,000 March 9 Retuned goods to Sirisha 1,000 March 15 Sold goods for cash 10,000 March 17 Sold goods to Anupam 5,000 March 19 Depreciation on furniture 500 March 20 Salaries paid 1,000 March 25 Commission received 1,500	Apply	4

3	Explain the accounting concept and conventions	Understand	4
4	Explain the accounting process?	Understand	4
5	Write a note on double entry system?	Understand	4

SHORT ANSWERS

S.No	Question	Blooms Taxonomy Level	Course Outcome
1	Define accounting	Remember	4
2	Define finance	Remember	4
3	Define trading account	Remember	4
4	**Differentiate** journal and ledger	Analyze	4
5	**Discuss** about the followings: (a) List of current assets (b) Creditors	Understand	4

UNIT-5

Long Answer Questions-

S.No	Question	Blooms Taxonomy Level	Course Outcome
1	What is Ratio Analysis? What are its advantages and Disadvantages?	Remember	5
2	Explain the classification of ratios	Understand	5
3	Discuss the funds flow statement ?	Understand	5
4	Write the differences between cash flow and funds flow statement	Understand	5

Short Answer Question

S.No	Question	Blooms Taxonomy Level	Course Outcome
1	**Define current assets**	Remember	5
2	**Discuss** about the current liabilities	Understand	5
3	**Define** ratio analysis	Remember	5
4	**Define in tangible assets**	Remember	5
5	**Discuss** about the dupont chart	Understand	5

d) BEYOND THE SYLLABUS TOPICS AND NOTES

A stock market, equity market, or share market

is the aggregation of buyers and sellers of stocks (also called shares), which represent ownership claims on businesses; these may include *securities* listed on a public stock exchange, as well as stock that is only traded privately, such as shares of private companies which are sold to investors through equity crowdfunding platforms. Investment is usually made with an investment strategy in mind.

Stocks can be categorized by the country where the company is domiciled. For example, Nestlé and Novartis are domiciled in Switzerland and traded on the SIX Swiss Exchange, so they may be considered as part of the Swiss stock market, although the stocks may also be traded on exchanges in other countries, for example, as American depositary receipts (ADRs) on U.S. stock markets.

A stock exchange is an exchange (or bourse)[note 1] where stockbrokers and traders can buy and sell shares (equity stock), bonds, and other securities. Many large companies have their stocks listed on a stock exchange. This makes the stock more liquid and thus more attractive to many investors. The exchange may also act as a guarantor of settlement. These and other stocks may also be traded "over the counter" (OTC), that is, through a dealer. Some large companies will have their stock listed on more than one exchange in different countries, so as to attract international investors.[6]

Stock exchanges may also cover other types of securities, such as fixed-interest securities (bonds) or (less frequently) derivatives, which are more likely to be traded OTC.

Trade in stock markets means the transfer (in exchange for money) of a stock or security from a seller to a buyer. This requires these two parties to agree on a price. Equities (stocks or shares) confer an ownership interest in a particular company.

Participants in the stock market range from small individual stock investors to larger investors, who can be based anywhere in the world, and may include banks, insurance companies, pension funds and hedge funds. Their buy or sell orders may be executed on their behalf by a stock exchange trader.

Some exchanges are physical locations where transactions are carried out on a trading floor, by a method known as open outcry. This method is used in some stock exchanges and commodities exchanges, and involves traders shouting bid and offer prices. The other type of stock exchange has a network of computers where trades are made electronically. An example of such an exchange is the NASDAQ.

A potential buyer *bids* a specific price for a stock, and a potential seller *asks* a specific price for the same stock. Buying or selling *at the Market* means you will accept *any* ask price or bid price for the stock. When the bid and ask prices match, a sale takes place, on a first-come, first-served basis if there are multiple bidders at a given price.

The purpose of a stock exchange is to facilitate the exchange of securities between buyers and sellers, thus providing a marketplace. The exchanges provide real-time trading information on the listed securities, facilitating price discovery.

The New York Stock Exchange (NYSE) is a physical exchange, with a hybrid market for placing orders electronically from any location as well as on the trading floor. Orders executed on the trading floor enter by way of exchange members and flow down to a floor broker, who submits the order electronically to the floor trading post for the Designated market maker ("DMM") for that stock to trade the order. The DMM's job is to maintain a two-sided market, making orders to buy and sell the security when there are no other buyers or sellers. If a bid–ask spread exists, no trade immediately takes place – in this case the DMM may use their own resources (money or stock) to close the difference. Once a trade has been made, the details are reported on the "tape" and sent back to the brokerage firm, which then notifies the investor who placed the order. Computers play an important role, especially for program trading.

The NASDAQ is an electronic exchange, where all of the trading is done over a computer network. The process is similar to the New York Stock Exchange. One or more NASDAQ market makers will always provide a bid and ask the price at which they will always purchase or sell 'their' stock.

The Paris Bourse, now part of Euronext, is an order-driven, electronic stock exchange. It was automated in the late 1980s. Prior to the 1980s, it consisted of an open outcry exchange. Stockbrokers met on the trading floor of the Palais Brongniart. In 1986, the CATS trading system was introduced, and the order matching system was fully automated.

People trading stock will prefer to trade on the most popular exchange since this gives the largest number of potential counter parties (buyers for a seller, sellers for a buyer) and probably the best price. However, there have always been alternatives such as brokers trying to bring parties together to trade outside the exchange. Some third markets that were popular are Instinet, and later Island and Archipelago (the latter two have since been acquired by Nasdaq and NYSE, respectively). One advantage is that this avoids the commissions of the exchange. However, it also has problems such as adverse selection.[7] Financial regulators have probed dark pools.[8]

The **Reserve Bank of India**,

chiefly known as, **RBI** is India's central bank and regulatory body responsible for regulation of the Indian banking system. It is under the ownership of Ministry of Finance, Government of India. It is responsible for the issue and supply of the Indian rupee. It also manages the country's main payment systems and works to promote its economic development. Bharatiya Reserve Bank Note Mudran is one of the specialised divisions of RBI through which it prints & mints Indian bank notes and coins. RBI established the National Payments Corporation of India as one of its specialised division to regulate the payment and settlement systems in India. Deposit Insurance and Credit Guarantee Corporation was established by RBI as one of its specialised division for the purpose of providing insurance of deposits and guaranteeing of credit facilities to all Indian banks.

Until the Monetary Policy Committee was established in 2016,[6] it also had full control over monetary policy in the country.[7] It commenced its operations on 1 April 1935 in accordance with the Reserve Bank of India Act, 1934.[8] The original share capital was divided into shares of 100 each fully paid.[9] Following India's independence on 15 August 1947, the RBI was nationalised on 1 January 1949.[10]

The overall direction of the RBI lies with the 21-member central board of directors, composed of: the governor; four deputy governors; two finance ministry representatives (usually the Economic Affairs Secretary and the Financial Services Secretary); ten government-nominated directors; and four directors who represent local boards for Mumbai, Kolkata, Chennai, and Delhi. Each of these local boards consists of five members who represent regional interests and the interests of co-operative and indigenous banks.

It is a member bank of the Asian Clearing Union. The bank is also active in promoting financial inclusion policy and is a leading member of the Alliance for Financial Inclusion (AFI). The bank is often referred to by the name 'Mint Street'.[11]

On 12 November 2021, the Prime Minister of India, Narendra Modi, launched two new schemes which aim at expanding investments and ensuring more security for investors. The two new schemes include the RBI Retail Direct Scheme and the Reserve Bank Integrated Ombudsman Scheme.[12] The RBI Retail Direct Scheme is targeted at retail investors to invest easily in government securities. According to RBI, the scheme will allow retail investors to open and maintain their government securities account free of cost. The RBI Integrated Ombudsman Scheme aims to further improve the grievance redress mechanism for resolving customer complaints against entities regulated by the central bank. The RBI makes it mandatory for all the banks in India to have a safe box in their own respect strong room. However, exception is given to the Regional Banks and the SBI branches located in the rural areas but a strong room is compulsory.

e) OBJECTIVE QUESTION BANK UNIT WISE

Unit- I

1. Which subject bridges gap between Economic Theory and Management Practice (D)

(a) Welfare Economics (b) Micro Economics (c) Macro Economics (d) Business Economics

2. Application of Economics for managerial decision-making is called (B)

(a) Macro Economics (b) Business economics (c) Welfare Economics (d) Micro Economics.

3.Which areas covered by the subject "Business Economics" (C)

(a) Operational issues (b) Environmental issues (c) Operational & Environmental issues (d) None

4. The relationship between Business Economics and Economic Theory is like that of

Engineering Science to Physics (or) Medicine to (C)

(a) athematics (b) Economics (c) Biology (d) Accountancy

5. Making decisions and processing information are the two Primary tasks of the Managers. It

was explained by the subject.) (A)

(a) Economics (b) Engineering Science (c) Physics (d) Chemistry

6. Any activity aimed at earning or spending money is Economic activity.

7. Who explained the "Law of Demand" Marshall.

8. Demand Curve always Negative sloping.

9. Geffen goods, Veblan goods and speculations are exceptions to Law of Demand.

10. The other name of inferior goods is Geffen goods.

Unit-II

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

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

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

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

3. Congregation of body of persons assembling together to work at a certain Time and place(C)

   (a) Firm (b) Industry (c) Plant (d) Size

4. The 'Law of Variable Proportions' is also called as (B)

   (a) Law of fixed proportions (b) Law of variable proportions (c) Law of returns to scale (d) None

5. When proportionate increase in all inputs results in an equal Proportionate increase in output,

   then we call (A)

   (a) Constant Returns to Scale (b) Decreasing Returns to Scale

   (c) Increasing Returns to Scale (d) None

6.The cost of best alternative forgone is Opportunity cost.

7. If we add up total fixed cost (TFC) and total variable cost (TVC), we get Total cost.

8. Implicit costs are theoretical costs, which are not recognized by the Accounting system.

9. 'Contribution" is the excess amount of Actual Sales over Variable cost.

10. Variable costs are the costs, which are varies with the level of output.

Unit-III

1. Exchange value of a unit of good expressed in terms of money is called (B)

   (a) Cost (b) Price (c) Capital (d) Expenditure

2. The price of a product is determined by the _____of that product (C)

   (a) Place and time (b) Production and sales (c) Demand and supply (d) Cost and income

3. The price at which demand and supply of a commodity equal is Known as (B)

   (a) High price (b) Equilibrium price (c) Low price (d) Marginal price

4. A market where large number of buyers and sellers dealing in Homogeneous product with perfect knowledge is called (C)

   (a) Imperfect competition (b) Monopoly (c) Perfect competition (d) Monopolistic competition

5. In which market, single market price prevails for the commodity (D)

   (a) Monopoly market (b) Oligopoly market (c) Duopoly market (d) Perfect competition market

6. Partnership firm can be formed with a minimum of Two Partners and it can have a maximum of 20 Partners.

7. "People may come and people may leave, but I go on forever" is Applicable to Company Business organization.

8. Share holders is Supreme Authority for Company Organization.

9. "One man one vote" Principle is adopted in Co-operative enterprises.

10. The management of 'Joint Hindu Family' business vests in the eldest member of the family, called Kartha.

Unit- IV

1.What is the current asset from the following? (A)

(a) Debtors (b) Bills payable (c) Creditors (d) Bank over draft

2. ___ decision relates to the selection of assets in which funds will be invested by a firm. (B)

(a) Finance (b) Investment (c) Dividend (d) None

3. _____ method is one of the traditional methods. (B)

(a) Net present value (b) Pay back period (c) Profitability index (d) internal rate of return

4. What is the current Liability from the following? (D)

(a) Bills Receivable (b) Closing stock (c) Cash in hand (d) Bills payable

5. The Pay Back Period also called as _______. (A)

(a) Pay off Period (b) Pay reserve method (c) Current Period (d) None

6. Financing decision refers as Acquisition of funds

7. Excess of current assets over current liabilities is known as Net working capital.

8. Long term investment of funds is called Capital budgeting.

9. A rate at which N.P.V = 0, then the rate is called Internal Rate of Return.

10. Finance is the life blood of the business.

Unit-V

1. Which would a business be most likely to use its 'solvency' (D)

   (a) Gross profit ratio (b) Debtors collection period (c) Current ratio (d) Debt – Equity ratio

2. Which of the following measures company's liquidity position (C)

   (a) Stock Turnover ratio (b) Debtor's collection period (c) Current ratio (d) Net profit ratio

3. In which Book-keeping system, business transactions are recorded as two separate accounts at the same time? (B)

   (a) Single entry (b) Double entry (c) Triple entry (d) None

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

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

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

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

6. company's 'return on investment' indicates its Profitability.

7. Higher 'Assets turnover ratio' explains Better utilization of assets.

8. The difference between current assets and current liabilities is called Working capital.

9. Debtor's is a current asset, where as creditor's is Current Liability.

10. What is the Desirable current Ratio 2:1.

F) PPT'S/NPTEL VIDEOS/any

other

WEBSITES:

UNIT-1
https://youtu.be/vLPpF0hunwc
https://youtu.be/EZuMYVKQhNk
UNIT-2
https://youtu.be/HKklVr2dBu8
https://youtu.be/xb-Tzq6rWFU
https://youtu.be/b7eK9HcWs2k
https://youtu.be/o19s-Z44DkQ
unit-3
https://youtu.be/lwQBVTd5rlY
https://youtu.be/J4Dz-LKsVhs
https://youtu.be/HylqSa58lqQ
https://youtu.be/3MUGmQKHIy4
unit-4
https://youtu.be/MJIngOTc-PA

https://youtu.be/iTaQeiRjX-4
https://youtu.be/XX8RyoMv7Z8
unit-5
https://youtu.be/kQvdvNiCpws
https://youtu.be/PfEN1cNgDDg

7. STUDENT SEMINAR TOPICS

LIST OF TOPICS FOR STUDENT SEMINARS:

VII.STUDENT SEMINAR TOPICS

1. Business Economics, its scope & application areas.
2. Elasticity of Demand, Types & Measurement.
3. Demand Forecasting & methods of demand forecasting.
4. Cost Analysis: Cost concepts.
5. Break-even Analysis (BEA) - & Its applications.
6. Objectives and Methods of Pricing.
7. Financial Analysis through ratios.

8. PREVIOUS UNIVERSITY QUESTION PAPERS TO PRACTICE

VIII .PREVIOUS PAPERS

R16

Code No: 134AG

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B.Tech II Year II Semester Examinations, December - 2019
BUSINESS ECONOMICS AND FINANCIAL ANALYSIS
(Common to CE, EEE, ME, ECE, CSE, EIE, IT, MCT, MMT, AE, MIE, PTM, CEE, MSNT)

Time: 3 Hours **Max. Marks: 75**

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 25 marks. Answer all questions in Part A.
Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b as sub questions.

PART – A

(25 Marks)

Identify the major advantage of sole proprietorship? [2]
b) What are the different phases in Business cycle? [3]
c) Define cross elasticity of demand. [2]
d) Which is the most expensive method of demand forecasting among the various methods? Why? [3]
e) What are the two inputs you would consider for production function with two variable inputs? [2]
f) What are the stages of product life cycle? [3]
g) What is the meaning of ‘carriage inwards’? [2]
h) What constitutes ‘net worth’ of a company? [3]
i) What is the difference between ‘current ratio’ and ‘quick ratio’? [2]
j) For the best use of ratio analysis, what should be the reference for comparison for a company and why? [3]

PART – B

(50 Marks)

2.a) Distinguish between positive and normative approach of study.
b) What is the implication of the word 'limited' after the company's name? [5+5]

OR

3.a) What is the meaning of 'recession'? What is its relevance for the economy?
b) What is the major difference between macroeconomics and microeconomics? [5+5]

4.a) What is the need for demand forecasting?
b) With suitable examples distinguish between complementary goods and substitutes. [5+5]

OR

5. State the law of supply. What are the determinants of supply? Explain briefly. [10]

6.a) If the marginal cost of a firm is rising, does this mean that its average cost is also rising? Explain briefly.
b) Given the following demand curve of a consumer for a monopolist's product Q = 14-2P, find the total revenue of the monopolist when it sells six units of the commodity without practicing any form of price discrimination. What is the value of consumers' surplus?
[5+5]

OR

7.a) Define breakeven point. What are the assumptions in breakeven analysis?
b) Suppose that the production function for a commodity is given by 10 multiplied by square root of (LK), where Q is the quantity of output, L is the quantity of Labour and K is the quantity of capital, indicate whether this production function exhibits constant increasing or decreasing returns to scale. [5+5]

8.a) What are the types of accounts and what are the rules governing them? Give twoexamples for each of them.
b) What is capital expenditure? Give three examples. [6+4]

OR

9. Following are the extracts from the Trial Balance of a firm as at 1st March 2017.Name of the account

	Dr.	Balance
Particulars	Rs.	Rs.
Sundry debtors	2,05,000	
Provision for doubtful debts		10,000
Bad debts	3,000	

Additional information:
Additional bad debts Rs.50,00,000, Maintain the provision for doubtful debts @ 10% ondebtors.
Pass the necessary journal entries and show the relevant accounts. [10]

10.a) How accounting ratios are useful in the inter-firm comparison?

b) What are turnover ratios? What purpose is served by debtor's turnover ratio and creditor's turnover ratio? [4+6]

OR

11.a) Determine which company is more profitable given the following:

Particulars	A Ltd	B Ltd
Net profit ratio	6%	8%
Turnover ratio	5 times	3 times

b) A business has current assets of Rs. 30,00,000 including stock of goods of 5,00,000. Its current liabilities are Rs.15,00,000. What is the current ratio? If rest of the current assets consists of sundry debtors and cash, what is the quick ratio? However, if the business should have maintained stock of 15,00,000, what would be its current ratio? What would be the quick ratio? [4+6]

Code No: 134AG

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B.Tech II Year II Semester Examinations, April - 2018

BUSINESSECONOMICSAND FINANCIAL ANALYSIS
(Common to CE, EEE, ME, ECE, CSE, EIE, IT, MCT, MMT, AE, MIE, PTM, CEE, MSNT)

Time: 3 Hours **Max. Marks: 75**

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 25 marks. Answer all questions in Part A.
Part B consistsof5 Units. Answer any onefullquestion fromeach unit. Each questioncarries 10 marks and may have a, b, c as sub questions.

PART- A

(25 Marks)

1. Give a brief description to the following: **(2)**
a) Theory of firm [2] [2] [3]
b) Law of demand [3]
c) Demand forecasting [3]
d) Micro and Macro Economics: c) Law
d) Supply Function [2]
e) Production Function [2]
f) Features of [3]
g) MonopolyJournal [2]
h) Double entry system of Book- [2]
i) keeping.Solvency Ratio [3]
j)Funds fromOperations.

(50 Marks)

PART-B

2.What is “Joint Stock Company”? Discuss the sources of capital required by a Joint stock company. [10]

OR

2. What is a „Business Cycle‟? Discuss the Phases of Business Cycle and list out themeasures to be taken for protecting the interests of the business. [10]

3. Discuss about different types of Elasticity of demand. [10]

OR

4.a) Explain in detail, the Law of Supply.
b) How is Law of supply helpful in decision making? [5+5]

J

6.a) Explain the concept Returns to Scale.
b) Explain Short run and long run cost functions. [5+5]

OR

7.a) Explain the Features of Monopolistic competition.
b) Explain the concept of cost-volume-profit analysis. [5+5]

8. What are accounting concepts? Discuss any three accounting concepts in detail. [10]

OR

9. From the following Trial Balance prepare Trading, profit and loss A/c for the yearended 31-03-2017 and Balance sheet as on that data [10]

Debit Balances	Rs.	Credit Balances	Rs.
Sundry Debtors	52,000	Sundry creditors	22,000
Cash in hand	1,592	Sales	2,92,000
Motor Car	22,000	Capital	70,000
Furniture	3,500		
Purchases	1,95,000		
Sales Returns	2,600		
Patents	8,420		
Opening Stock	7,000		
Motor Car expenses	11,400		
Rent, Rates and Taxes	6,108		
Insurance Premium	2,400		
Machinery	24,000		
Wages	23,600		
General Expenses	2,680		
Carriages Inwards	2,040		
Carriages Outwards	1,130		
Discount	500		
Fuel	6,430		
Drawings	8,000		
	3,84,000		3,84,000

Closing stock:Rs.35,000

10. Explain the importance of Ratio analysis as a technique for analyzing Financial Statements. [10]

OR

11. From the following Balance Sheets of Mr.Praveen Prepare a Schedule of changesin working capital and a funds flow statement. [10]

Liabilities	2016	2017	Assets	2016	2017
	Rs	Rs.		Rs.	Rs.
Capital	63,000	1,00,000	Cash	15,000	20,000
Borrowings	50,000	60,000	Debtors	30,000	28,000
Trade Creditors	42,000	39,000	Stock-in-trade	55,000	72,000
Bank Overdraft	35,000	25,000	Land and Buildings	80,000	1,00,000
Out Standing Expenses	5,000	6,000	furniture	15,000	10,000
	1,95,000	2,30,000		1,95,000	2,30,000

SAMPLE INTERNAL EXAMINATION QUESTION PAPER WITH KEY

1) A) Explain the various sources of capital. ? 2.5M

B) Define law of demand? Explain the assumptions and exceptions of law of demand? 2.5M

2) A) Explain the different types of business entities? 2.5M

B) Write any 5 demands forecasting methods? 2.5M

3) A) Explain about national income and importance? 2.5M

B) What is elasticity of demand? Explain different types of price elasticity of demand? 2.5M

4) A)What is production function? Explain about factors of production? 2.5M

B) Define cost? Explain the classification of cost? 2.5M

1. a. Explain the various sources of capital ?

Sources of raising long-term capital:

Issue of Shares: The amount of capital decided to be raised frommembers of the public is divided into units of equal value.

a) **Issue of Preference Shares**: Preference share have three distinct characteristics. Preference shareholders have the right to claim dividend at a fixed rate, which is decided according to the terms of issue of shares. Moreover, the preference dividend is to be paid first out of the net profit..

.

b) **Issue of Equity Shares**: The most important source of raising long- term capital for a company is the issue of equity shares. In the case of equity shares there is no promise to shareholders a fixed dividend. But if the company is successful and the level profits are high, equity shareholders enjoy very high returns on their investment.

Issue of Debentures: When a company decides to raise loans from the public, the amount of loan is divided into units of equal. These units are known as debentures. A debenture is the instrument or certificate issued by a company to acknowledge its debt. Those who invest money indebentures are known as _debenture holders'. They are creditors of the company. Debentures carry a fixed rate of interest, and generally are repayable after a certain period.

Loans from financial Institutions: Government with the main object of promoting industrial development has set up a number of financial institutions. These institutions play an important role as sources of company finance. These institutions provide medium and long-term finance to industrial enterprises at a reason able rate of interest. Thus companies may obtain direct loan from the financial institutions for expansion or modernization of existing manufacturing units or for starting a new unit.

Retained Profits: Successful companies do not distribute the whole of their profits as dividend to shareholders but reinvest a part of the profits. The amount of profit reinvested in the business of a company is known as retained profit.

Public Deposits: An important source of medium – term finance which companies make use of is public deposits. This requires advertisement to be issued inviting the general public of deposits. Against the deposit, the company mentioning the amount, rate of interest, time of repayment and such other information issues a receipt.

Sources of raising short-term capital:

Trade credit: Trade credit is a common source of short-term finance available to all companies. It refers to the amount payable to the suppliersof raw materials, goods etc. after an agreed period, which is generally lessthan a year. It is customary for all business firms to allow credit facility to their customers in trade business. Thus, it is an automatic source of finance.

Bank loans and advances: Money advanced or granted as loan by commercial banks is known as bank credit. Companies generally secure bank credit to meet their current operating expenses.

Overdraft: In the case of overdraft, the company is allowed to overdraw its current account up to the sanctioned limit. This facility is also allowed either against personal security or the security of assets. Interest ischarged on the amount actually overdrawn, not on the sanctioned limit.

Discounting of Bills: Commercial banks also advance money by discounting bills of exchange. A company having sold goods on credit maydraw bills of exchange on the customers for their acceptance. A bill is an order in writing requiring the customer to pay the specified amount after acertain period (say 60 days or 90 days

Short term loans from finance companies: Short-term funds may be available from finance companies on the security of assets. Some finance companies also provide funds according to the value of bills receivable or amount due from the customers of the borrowing company, which theytake over.

1b) Define law of demand? Explain the assumptions and exceptions of law of demand?

Demand function is a function which describes a relationship between one variable and its determinants. The demand function for a good relates the quantity of good which consumers demand during a given period to the factors which influence the demand. Quantity demanded is dependent variable and all the factors are independent variables. The factors can be built up into a demand function. The demand function can be mathematically expressed as follows:

$$Q = f(P, I, T, P_1..P_n, E_P, E_I, A, O)$$

Q = Quantity demandedf = Function of
P = Price of goods itself I = Income of consumers
T = Taster and preferences $P_1..P_n$ = Price of related goods
E_P = Expectation about future

LAW OF DEMAND:

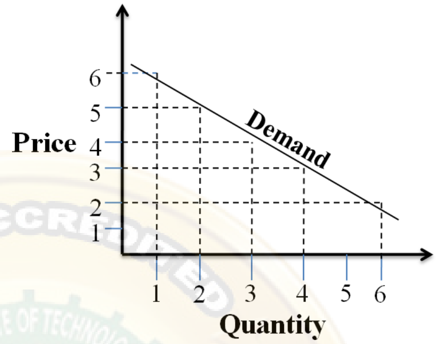
Law of demand shows the relationship between price and quantity demanded of a commodity in the market. In the words of Marshall, —the amount demand increases with a fall in price and diminishes with arise in price‖.

The law of demand states that **" other things remaining constant, the higher the price of the commodity, the lower is the demand and lower the price, higher is the demand".** It is called as **ceteris paribus** (Latin phrase meaning other things constant.)

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

Demand Schedule: **Demand Curve:**

Price of Apple (In. Rs.)	Quantity Demanded
2	6
3	4
4	3
5	2
6	1



When the price falls from Rs. 6 to 5, quantity demand increases from 1 to 2. In the same way as pricefalls, quantity demanded increases. On the basis of the demand schedule, we can draw the demand curve. The above demand curve shows the inverse relationship between price and quantity demanded of apple.It is downward sloping.

EXCEPTIONS TO LAW OF DEMAND

According to law of demand, other things being constant, as the price increases, the demand for the commodity decreases and vice-versa. But this is not true all the time. In some cases, as the price increases, the demand for the commodity will also increase and the demand decreases when the price decreases. All these cases are considered as exceptions to the law of demand.

When price increases from OP to Op1, quantity demanded also increases from OQ to OQ1 and vice versa.The following are the exceptions to the law of demand.

***5.* <u>Giffen goods or Giffen paradox:</u>**

The Giffen good or inferior good or cheap good is an exception to the law of demand. The demand for these goods varies directly with the variations in prices i.e., there exists direct relation between the quantity demanded and the price of the commodity. Giffen goods may or may not exist in the real world.

.

***6.* <u>Goods of status</u>**

In some situations, certain commodities are demanded just because they are expensive or prestige goods and are usually used as status symbols to display one's wealth in the society. Examples of such commodities are diamonds, air conditioned car, duplex houses etc. as the price of these commodities increase, they are more considered as status symbols and hence their demand gets raised. This goesagainst the law of demand.

7. **Ignorance:**

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

8.**consumer expectations of future prices**

If the price of the commodity is increasing, the consumers will buy more of it because of the fear that it increase still further. Similarly, if the consumer expects the future prices to decrease, he may not purchasethe commodity thinking that the good may be of bad quality. This violates the law of demand.

2) A) Explain the different types of business entities?

TYPES OF BUSINESS ENTITIES

Sole Proprietorship

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

Features

- It is easy to start a business under this form and also easy to close.
- He introduces his own capital. Sometimes, he may borrow, if necessary
- He enjoys all the profits and in case of loss, he lone suffers.
- He has unlimited liability which implies that his liability extends to his personal properties in case of loss.
- He has a high degree of flexibility to shift from one business to the other.

Advantages

Easy to start and easy to close: Formation of a sole trader form of organization is relatively easy even closing the business is easy.

Personal contact with customers directly: Based on the tastes and preferences of the customers the stocks can be maintained.

Prompt decision-making: To improve the quality of services to the customers, he can take any decision and implement the same promptly. He is the boss and he is responsible for his business Decisions relating to growth or expansion can be made promptly.

High degree of flexibility: Based on the profitability, the trader can decide to continue or change the business, if need be.

Disadvantages

Unlimited liability: The liability of the sole trader is unlimited. It means that the sole trader has to bring his personal property to clear off theloans of his business. From the legal point of view, he is not different from his business.

Limited amounts of capital: The resources a sole trader can mobilize cannot be very large and hence this naturally sets a limit for the scale of operations.

No division of labour: All the work related to different functions such as marketing, production, finance, labour and so on has to be taken care of by the sole trader himself. There is nobody else to take his burden. Family members and relatives cannot show as much interest as the trader takes.

Uncertainty: There is no continuity in the duration of the business. On the death, insanity of insolvency the business may be come to an end.

6. **Inadequate for growth and expansion:** This from is suitable for only small size, one-man-show type of organizations. This may not really work out for growing and expanding organizations.

Partnership

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

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

Features

11. **Relationship:** Partnership is a relationship among persons. It is relationship resulting out of an agreement.
12. **Two or more persons:** There should be two or more number of persons.
13. **There should be a business**: Business should be conducted.
14. **Agreement:** Persons should agree to share the profits/losses of thebusiness
15. **Carried on by all or any one of them acting for all:** The business can be carried on by all or any one of the persons acting for all. This means that the business can be carried on by one person who is the agent for all other persons. Every partner is both an agent and a principal.

Joint Stock Company

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

Company Defined

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

Features

Artificial person: The Company has no form or shape. It is an artificial person created by law. It is intangible, invisible and existing only, in the eyes of law.

Separate legal existence: it has an independence existence, it separate from its members. It can acquire the assets. It can borrow for thecompany. It can sue other if they are in default in payment of dues, breach of contract with it, if any. Similarly, outsiders for any claim can sueit.

Voluntary association of persons: The Company is an association of voluntary association of persons who want to carry on business for profit. To carry on business, they need capital. So they invest in the share capital of the company.

Limited Liability: The shareholders have limited liability i.e., liability limited to the face value of the shares held by him.

Capital is divided into shares: The total capital is divided into a certain number of units. Each unit is called a share.

Limited Liability Company (LLC)

Limited Liability Company is another category of company registered under the Indian New Companies Act, 2013. There are number of companies available in India including private limited and public limited ones but Limited LiabilityCompany is a brand new one in the line. It's often called as a Limited Liability Corporation and its nature of business is quite similar with partnership firm and sole trade business. Company is an association of persons or an artificial person formed under the Indian Companies act in order to carry out a certain business. Under the Limited Liability Company Act, liability is limited among members or partners.

New Companies Act, 2013 has defined all rules and regulations regarding incorporating and registering all limited liability companies. One should apply to the Registrar of Companies (ROC) by giving all the details regarding company including name of the company, name and address of board of directors, location of the company as per the company registration services.

3) A) Explain about national income and importance?

IMPORTANCE OF NATIONAL INCOME

The following points highlight the top eleven reasons for growing importance of national income studies in recent years.

Economic Policy:

Economic policy refers to the actions which Govt. Takes in the economic feild such as Tax policy, Money supply policy, Interest rate policy etc. National income figures are an important tool of macroeconomic analysis and policy.

National income estimates are the most comprehensive measures of aggregate economic activity in an economy. It is through such estimates that we know the aggregate yield of the economy and can lay down future economic policy for development

Economic Planning:

National income statistics are the most important tools for long-term and short- term economic planning. A country cannot possibly frame a plan without having a prior knowledge of the trends in national income. The Planning Commission in India also kept in view the national income estimates before formulating the five-year plans.

Economy‟s Structure:

National income statistics enable us to have clear idea about the structure of the economy. It enables us to know the relative importance of the various sectors of the economy and their contribution towards national income. From these studies we learn how income is produced, how it is distributed, how much is spent, saved or taxed.

Inflationary and Deflationary Gaps:

Inflationary gap means the amount by which the total demand is higher than the total supply. Deflationary gap means the amount by which the total demand is less than the total supply. National income and national product figures enable us to have an idea of the inflationary and deflationary gaps. For accurate and timely anti-inflationary and deflationary policies, we need regular estimates of national income.

Budgetary Policies:

Modern governments try to prepare their budgets within the framework of national income data and try to formulate anti-cyclical policies according to the facts revealed by the national income estimates. Even the taxation and borrowing policies are so framed as to avoid fluctuations in national income.

National Expenditure:

National income studies show how national expenditure is divided between consumption expenditure and investment expenditure. It enables us to provide for reasonable depreciation to maintain the capital stock of a community. Too liberal allowance of depreciation may prove harmful as it may unnecessarily lead to a reduction in consumption.

Distribution of Grants-in-aid:

National income estimates help a fair distribution of grants-in-aid by the federal governments to the state governments and other constituent units.

Standard of Living Comparison:

National income studies help us to compare the standards of living of people in different countries and of people living in the same country at different times.

International Sphere:

National income studies are important even in the international sphere as these estimates not only help us to fix the burden of international payments equitably amongst different nations but also enable us to determine the subscriptions and quotas of different countries to international organisations like the UNO, IMF, IBRD. etc.

Defense and Development:

National income estimates help us to divide the national product between defence and development purposes. From such figures we can easily know how much can be spared for war by the civilian population.

Public Sector:

National income figures enable us to know the relative roles of public and private sectors in the economy. If most of the activities are performed by the state, we can easily conclude that public sector is playing a dominant role.

B) What is elasticity of demand? Explain different types of price elasticity of demand?

TYPES OF ELASTICITY OF DEMAND:

There are four types of elasticity of demand:

5. Price elasticity of demand
6. Income elasticity of demand
7. Cross elasticity of demand
8. Advertisement elasticity of demand

II. Price elasticity of demand:

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

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

$$E_p = \frac{\frac{Q_2 - Q_1}{Q_1}}{\frac{P_2 - P_1}{P_1}}$$

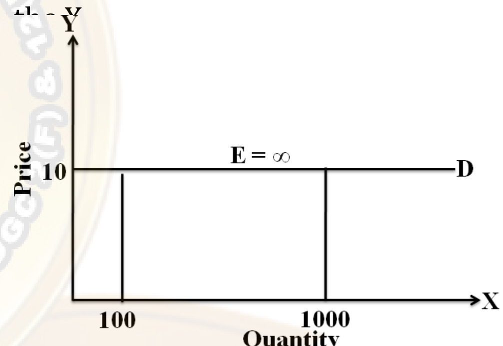
Q_1 = Old demand
Q_2 = New demand
p_1 = Old price
p_2 = New price

There are five cases of price elasticity of demand

F. Perfectly elastic demand:

When small change in price leads to an infinitely large change is quantity demand, it is called perfectly or infinitely elastic demand. In this case E=∞. Sometimes, even there is no change in the price, the demand changes in huge quantity. In case of perfect elastic demand, the demand for a commodity changes even though there is no change in price. This elasticity is very rarely found in practice. We can see a straight line demand curve parallel to

Price	Demand
10	100
10	1000

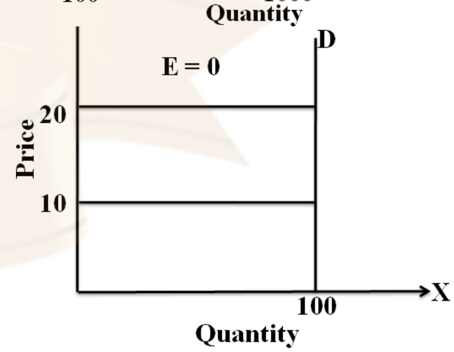


E_p = ((Q2 – Q1)/Q1) /((P2 – P1)/P1)

E_p = (1000 – 100)/100 /(10 – 10)/10 = ∞

The demand curve is horizontal straight line. It shows the at Rs. 10 price any quantity is demanded and if price increases, the consumer will not purchase the commodity.

G. Perfectly Inelastic Demand



A commodity is said to have perfectly inelastic demand, when even a large change in price of the commodity causes no change in the quantity demanded. The elasticity coefficient of perfectly in elastic demand is E_p = 0.

The shape of the demand curve for perfectly inelastic is vertical as shown below.

Price	Demand
10	100
20	100

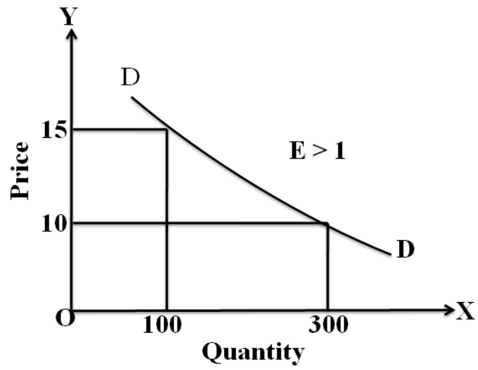
E_p = ((Q2 – Q1)/Q1) /((P2 – P1)/P1)

E_p = (100 – 100)/100 /(20 – 10)/10 = 0

When price increases from Rs. 10 to Rs.20, the quantity demanded remains the same. In other words theresponse of demand to a change in Price is nil. In this case ‗E'=0.

H. Relatively elastic demand:

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



Price	Demand
10	300
15	100

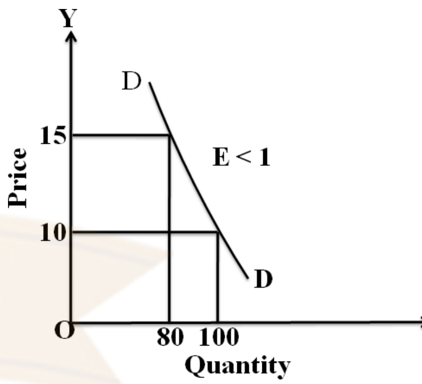
E_p = ((Q2 – Q1)/Q1) /((P2 – P1)/P1)

E_p = (100 – 300)/300 /(15 – 10)/10 = –1.34

When price increases from Rs.10 to Rs.15, quantity demanded decreases from 300units to 100units whichis larger than the change in price.

I. Relatively in-elastic demand.

Quantity demanded changes less than proportional to a change in price. A large change in price leads tosmall change in quantity demanded. Here E < 1. Demanded carve will be steeper.



Price	Demand
10	100
15	80

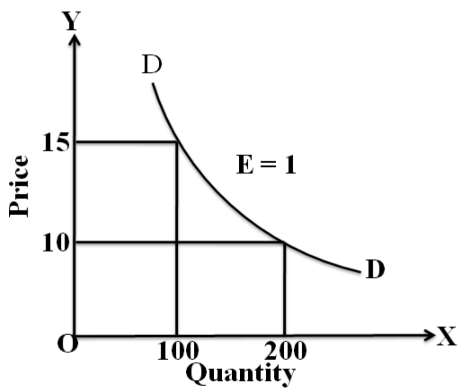
E_p = ((Q2 – Q1)/Q1) /((P2 – P1)/P1)

E_p = (80 – 100)/100 /(15 – 10)/10 = –0.40

When price increases from Rs.10 to Rs.15 quantity demanded decreases from 100units to units, which is smaller than the change in price.

J. unitary elasticity of demand:

The change in demand is exactly equal to the change in price. When bothare equal, E=1 and elasticity is said to be unitary.



Price	Demand
10	200
15	100

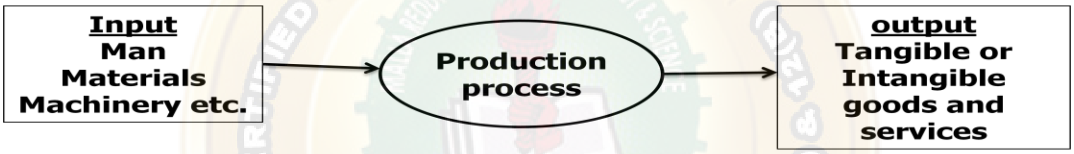
E_p = ((Q2 – Q1)/Q1) /((P2 – P1)/P1)

$E_p = (100 - 200)/200\,/(15 - 10)/10 = -1$

When price increases from Rs.10 to Rs.15, quantity demanded decreases from 200units to 100units. Thus a change in price has resulted in an equal change in quantity demanded so price elasticity of demand is equal to unity.

A)What is production function? Explain about factors of production?

Production is the transformation or conversion of resources into commodities over time. Economists view production as an activity through which utility is created or enhanced for a product. A firm is a business unit which undertakes the activity of transforming inputs into output of goods and services.



FACTORS OF PRODUCTION

Factors of production is an economic term that describes the inputs that are used in the production of goods or services in order to make an economic profit. The factors of production include land, labor, capital and entrepreneurship. These production factors are also known as management, machines, materials and labor, and knowledge has recently been talked about as a potential new factor of production.

Land

Land is short for all the natural resources available to create supply. It includes raw land and anything that comes from the land. It can be a non-renewable resource.

That includes commodities such as oil and gold. It can also be a renewable resource, such as timber. Once man changes it from its original condition, it becomes a capital good. For example, oil is a natural resource, but gasoline is a capital good. Farmland is a natural resource, but a shopping center is a capital good.

The income earned by owners of land and other resources is called rent.

Labour

Labor is the work done by people. The value of labor depends on workers' education, skills, and motivation. It also depends on productivity. That measures how much each hour of worker time produces in output.

The reward or income for labor is wages.

Capital

Capital is short for capital goods. These are man-made objects like machinery, equipment, and chemicals, that are used in production. That's what differentiates them from consumer goods. For example, capital goods include industrial and commercial buildings, but not private housing. A commercial aircraft is a capital good but a private jet is not.

The income earned by owners of capital goods is called interest.

Entrepreneurship

Entrepreneurship is the drive to develop an idea into a business. An entrepreneur combines the other three factors of production to add to supply. The most successful are innovative risk-takers.

The income entrepreneurs earn is profits.

B) Define cost? Explain the classification of cost?

TYPES OF COSTS

Profits are the difference between selling price and cost of production. In general the selling price is not within the control of a firm but many costs are under its control. The firm should therefore aim at controlling and minimizing cost. The various relevant concepts of cost are:

Opportunity costs and Outlay costs:

Opportunity costs refer to the „costs of the next best alternative foregone‟. We have scarce resources and all these have alternative uses. Where there is an alternative, there is an opportunity to reinvest the resources. In other words, if there are no alternatives, there are no opportunity costs. It is necessary that we should always consider the cost of the next best alternative foregone before committing the funds on a given option. In other words, the benefits from the present option should be more than the benefits of the next best alternative. Opportunity cost is said to exist when the resources are scarce and there are alternative uses forthese resources. If there is no alternative, Opportunity cost is zero

For example: if a firm owns a land, there is no cost of using the land (i.e., the rent) in firm‟s account. Bust the firm has an opportunity cost of using this land, which is equal to the rent foregone by not letting the land out on (the return of second best alternative is regarded as the cost of first best alternative) rent.

Out lay costs are as actual costs which are actually incurred by the firm. these are the payments madefor labour, material, plant, building, machinery traveling, transporting etc., These are all those expenses appearing in the books of account, hence based on accounting cost concept.

Explicit costs and Implicit costs:

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

Implicit costs are also called as imputed costs which don‟t involve payment of cash as they are not actually incurred. They would have been incurred had the owner not been in possession of the facilities. Ex: Interest on own capital, saving in terms of salary due to own supervision and rent of own building etc.

Historical costs and Replacement costs:

Historical cost is the original cost that has been originally spent to acquire the asset. of an asset. Historical valuation is the basis for financial accounts.

A replacement cost is the price that is to be paid currently to replace the same asset. A replacement costis a relevant cost concept when financial statements have to be adjusted for inflation.

Short – run costs 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 are constant.Long run is defined as a period of adequate length during which a company may alter all factors of production with high degree of flexibility.

Out-of pocket costs and Books costs:

Out-of pocket costs also known as explicit costs are those costs that involve current cash payment such as purchase of raw material, payment of salary rents payment, interest on loan etc.

Book costs also called implicit costs do not require current cash payments. Depreciation, unpaid interest, salary of the owner is examples of back costs.

Fixed costs, Variable costs and Semi-variable costs:

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

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

Semi-variable costs refer to such costs that are fixed to some extent beyond which they are variable. Ex:telephone charges, Electricity charges, etc.

Past costs and Future costs:

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

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

Controllable costs and Uncontrollable costs:

Controllable costs are ones, which can be regulated by the executive who is in charge of it. Direct expenses like material, labour etc. are controllable costs.

Some costs are not directly identifiable with a process of product. They are apportioned to various processes or products in some proportion. These apportioned costs are called uncontrollable costs.

Incremental costs and Sunk costs:

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

Sunk costs are those which are not altered by any change – They are the costs incurred in the past. This cost is the result of past decision, and cannot be changed by future decisions. Investments in fixed assets are examples of sunk costs. Once an asset is bought, the funds are blocked forever. They can neither be changed nor controlled.

Total costs, Average costs and Marginal costs:

Total cost is the total expenditure incurred for the input needed for production. It may be explicit or implicit. It is the sum total of the fixed and variable costs.

Average cost is the cost per unit of output. It is obtained by dividing the total cost (TC) by the total quantity produced (Q)

Marginal cost is the additional cost incurred to produce an additional unit of output

Accounting costs and Economic costs:

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

Economic cost refers to cost of economic resources used in production including opportunity cost. Economics concept considers future costs and future revenues, which help future planning, and choice, while the accountant describes what has happened, the economics aims at projecting what will happen.