

Managerial Economics

Unit 1

Introduction and demand analysis

INTRODUCTION TO ECONOMICS: The word Economics is derived from the ancient Greek word “oikonomia” it means managing and household with limited resources.

DEFINITION OF ECONOMICS

“Adam smith is the father of the economics”

- Every activity aimed at earning or spending money is called economic activity i.e to satisfy the needs or wants like food, cloth and shelter.
- The economist of early age treated economics merely the science of wealth.
- During 18th century **Adam smith** is the father of economics define economics as the study of nature and uses of national wealth.
- **Dr. Alfred Marshall** of 19th century. He defined economics as the study of man's action in the ordinary business of life.

BRANCHES OF ECONOMICS OR TYPES

1. MICRO ECONOMICS
2. MACRO ECONOMICS

1. MICRO ECONOMICS

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

2. MACRO ECONOMICS

The study of ‘aggregate’ or total level of economic activity in a country is called *macroeconomics*. It studies the flow of economics resources or factors of production (such as land, labour, capital, organisation and technology) from the resource owner to the business firms and then from the business firms to the households.

INTRODUCTION TO MANAGERIAL ECONOMICS

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

Meaning and Definition of Managerial Economics:

Managerial Economics bridges the gap between traditional economics theory and real business practices in two Ways. First it provides a number of tools and techniques to enable the manager to become more competent to take decisions in real and practical situations. Secondly it serves as an integrating course to show the interaction between various areas in which the firm operates.

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

NATURE OF MANAGERIAL ECONOMICS

1. Close to Microeconomics: Managerial economics is concerned with finding the solutions for different managerial problems of a particular firm. Thus, it is more close to microeconomics.

2. Normative Statements: A normative statement usually includes or implies the words 'ought' or 'should'. They reflect people's moral attitudes and are expressions of what a team of people ought to do. For instance, it deals with statements such as 'Government of India should open up the economy. Such statement are based on value judgments and express views of what is 'good' or 'bad', 'right' or 'wrong'.

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

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

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

SCOPE

1. Demand Analysis

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.

2. 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.

3. Pricing Related Decisions

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

4. Profit Related Decisions

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

5. Capital or Investment Analysis

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.

SIGNIFICANCE

1. Decision-Making Tool

Managerial economics provides managers with analytical tools and economic reasoning to make sound business decisions.

- Helps in choosing the best course of action from several alternatives.
- Applies cost-benefit analysis, marginal analysis, and optimization techniques.

2. Helps in Demand Forecasting and Planning

Understanding consumer demand is essential for production and marketing decisions.

- Managerial economics uses statistical and economic models to predict future demand.
- Enables efficient resource allocation and avoids under- or over-production.

3. Optimal Resource Allocation

Resources like labor, capital, and raw materials are limited.

- Managerial economics helps in using these resources efficiently.
- Guides managers in cost minimization and profit maximization.

4. Pricing Decisions and Strategies

Price is a key determinant of a firm's revenue and competitiveness.

- Managerial economics analysis market structures (perfect competition, monopoly, oligopoly).
- Helps in setting optimal pricing strategies to balance demand, cost, and competition.

5. Cost and Production Analysis

Understanding cost behaviour is essential for profit planning.

- Managerial economics helps in identifying fixed, variable, and marginal costs.
- Aids in determining the most cost-effective production level.

6. Profit Management

Profit is both a measure of success and a source of growth.

- Managerial economics provides tools for profit planning, risk assessment, and forecasting.
- Helps in making decisions under uncertainty to stabilize profits.

OBJECTIVES OF A FIRM

1. Profit Maximization (Traditional Objective)

2. Sales Revenue Maximization
3. Growth Maximization
4. Utility or Satisfaction Maximization (Managerial Utility Model)
5. Market Share Maximization
6. Long-Run Survival and Sustainability
7. Social Responsibility or Welfare Maximization

1. PROFIT MAXIMIZATION: Usually, in economics, we assume firms are concerned with maximising profit.

Higher profit means:

- Higher dividends for shareholders.
- More profit can be used to finance research and development.
- Higher profit makes the firm less vulnerable to takeover.
- Higher profit enables higher salaries for workers.

In many firms, there is a separation of ownership and control. Those who own the company (shareholders) often do not get involved in the day to day running of the company.

- This is a problem because although the owners may want to maximise profits, the managers have much less incentive to maximise profits because they do not get the same rewards, (share dividends)
- Therefore managers may create a minimum level of profit to keep the shareholders happy, but then maximise other objectives, such as enjoying work, getting on with other workers. (e.g. not sacking them) This is the problem of separation between owners and managers.
- This ‘ principal-agent ‘ problem can be overcome, to some extent, by giving managers share options and performance related pay although in some industries it is difficult to measure performance.
- More on profit-satisficing

2. SALES MAXIMIZATION:

Firms often seek to increase their market share – even if it means less profit. This could occur for various reasons:

- Increased market share increases monopoly power and may enable the firm to put up prices and make more profit in the long run.
- Managers prefer to work for bigger companies as it leads to greater prestige and higher salaries.
- Increasing market share may force rivals out of business. E.g. the growth of supermarkets has led to the demise of many local shops. Some firms

may actually engage in predatory pricing which involves making a loss to force a rival out of business

3. GROWTH MAXIMIZATION:

Growth Maximization is an objective where a firm aims to **increase its size and market presence** rather than focusing only on short-term profit.

Growth maximization means the firm tries to **expand its output, sales, assets, or market share** as much as possible. This may involve:

- Increasing sales revenue
- Entering new markets
- Launching new products
- Acquiring or merging with other firms

4. UTILITY OR SATISFACTION MAXIMIZATION (Managerial Utility Model)

Utility or Satisfaction Maximization (Managerial Utility Model) refers to a situation where **managers aim to maximize their own satisfaction or utility**, rather than only maximizing the firm's profits.

This concept was developed by **William J. Baumol, Robin Marris, and Oliver Williamson**, who argued that in large corporations, ownership and control are often separated — **owners (shareholders)** want profits, but **managers** may have different personal goals.

According to the Managerial Utility Model:

Managers derive **utility (satisfaction)** from things such as:

- Higher **salaries and bonuses**
- **Job security**
- **Power and prestige**
- **Growth of the firm** (because it increases their influence)
- **Staff size and perks**

So instead of focusing purely on **profit maximization**, managers may make decisions that increase their **own satisfaction** — as long as the firm earns enough profit to keep shareholders satisfied.

5. MARKET SHARE MAXIMIZATION:

Market Share Maximization means that a firm aims to capture the largest possible portion of the total market sales for its product or service — even if this reduces short-term profits.

In this objective, the firm focuses on increasing its sales volume and customer base rather than immediately maximizing profit. To achieve this, it may:

- Lower prices to attract more customers
- Improve product quality and service
- Increase advertising and promotions
- Expand distribution channels

Purpose:

- Strengthen their competitive position
- Discourage new competitors from entering the market
- Gain economies of scale (lower cost per unit with higher production)
- Ensure long-term profitability through a loyal customer base

6. LONG-RUN SURVIVAL AND SUSTAINABILITY:

Long-Run Survival and Sustainability means that a firm's main goal is to **remain in business and continue operating successfully over time**, rather than just focusing on short-term profits.

To ensure survival and sustainability, a firm must:

- Adapt to market changes (consumer tastes, technology, competition)
- Maintain financial stability
- Use resources responsibly
- Build a good reputation and customer trust

Purpose:

Focusing on long-run survival helps a firm to:

- Stay competitive in changing environments
- Avoid risks that could lead to business failure
- Achieve steady growth and profitability over time

7. SOCIAL RESPONSIBILITY OR WELFARE MAXIMIZATION:

Social Responsibility or Welfare Maximization means that a firm aims to **serve society's interests** along with earning profits. It focuses on the **well-being of all stakeholders** — customers, employees, the community, and the environment.

Under this objective, a firm takes actions that **benefit society as a whole**, such as:

- Producing **safe and high-quality products**
- Providing **fair wages and good working conditions**
- Reducing **pollution and environmental damage**
- Supporting **community development** through charity or social projects

Purpose:

The aim is to create a **balance between profit and public welfare**, ensuring that business growth also contributes positively to society.

Theory of demand

- Demand theory is a theory relating to the relationship between consumer demand for goods and services and their prices.
- Demand theory forms the basis for the demand curve, which relates consumer desire to the amount of goods available.
- As more of a good or service is available, demand drops and therefore so does the equilibrium price.

BREAKING DOWN 'Demand Theory'

- Demand theory is one of the core theories of microeconomics.
- It aims to answer basic questions about how badly people want things, and how demand is impacted by income levels and satisfaction (utility).
- Based on the perceived utility of goods and services by consumers, companies adjust the supply available and the prices charged.

DEMAND FUNCTION:

The demand function is an algebraic expression of the relationship between demand for a commodity and its various determinants.

There are 2 types of demand functions:

1. Individual demand function
2. Market demand function

1. Individual demand function

An individual demand function refers to the quantities of a commodity demand at various prices, given his income, prices of related goods and tastes.

It is expressed as: $D=f(p)$

2. Market demand function

Market demand function refers to the functional relationship between market demand and the factors affecting market demand. As mentioned before, market demand is affected by all factors affecting individual demand. In addition, it is also affected by size and composition of population, season and weather and distribution of income.

$$D_x = f(P_x, P_r, M, T, A, U)$$

Where

D_x = Market demand of commodity x;

P_x = Price of given commodity x;

P_r = Prices of Related Goods;

T = Tastes and Preferences;

F = Expectation of Change in Price in future;

M = money income of the consumer

A = Advertisement effect

U = Unknown variables

LAW OF DEMAND

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

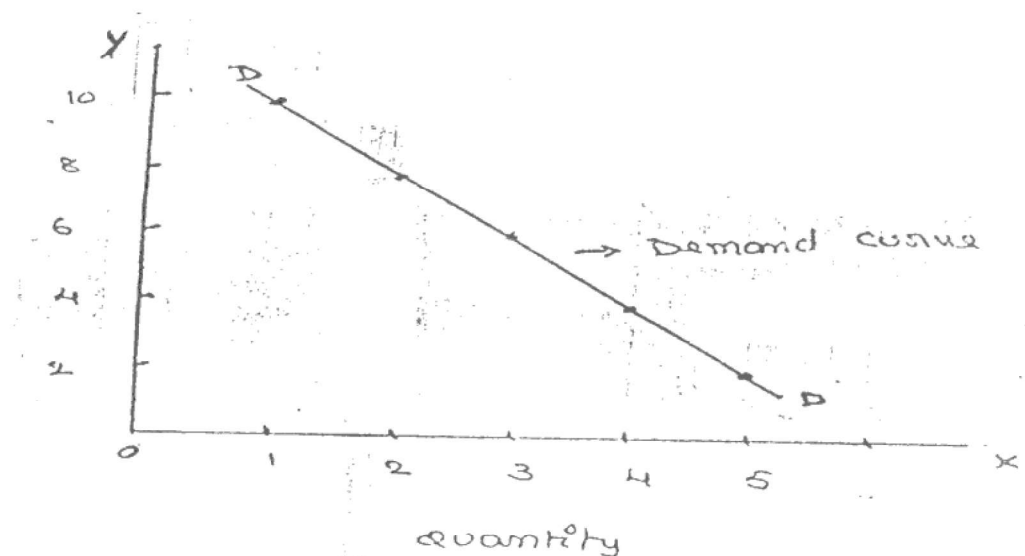
A rise in the price of a commodity is followed by a reduction in demand and a fall in price is followed by an increase in demand, if a condition of demand remains constant.

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

Demand of schedule

Price of apple in rs.	Quantity demand
10	1
8	2
6	3
4	4
2	5

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



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

Assumptions:

- ☐ Income should remain constant.
- ☐ Prices of other goods should not change.
- ☐ There should be no substitute for the commodity

- ☐ The commodity should not confer at any distinction
- ☐ The demand for the commodity should be continuous

ELASTICITY OF DEMAND

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

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

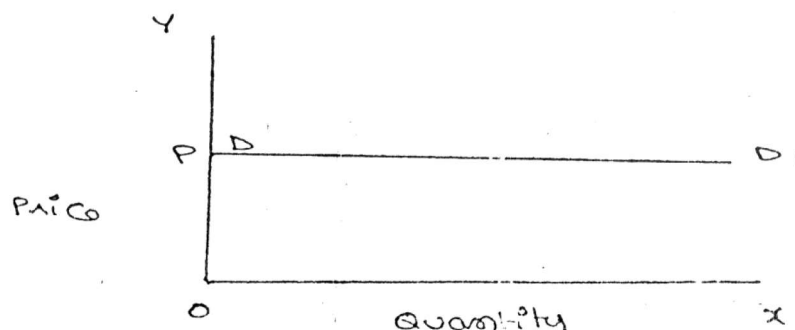
Elastic Demand: A small change in price may lead to a great change in quantity demanded. In this case, demand is elastic.

In-Elastic Demand: If a big change in price is followed by a small change in demanded then the demand is “inelastic.”

Measurements of Elasticity of Demand

- ☐ Perfectly elastic demand
- ☐ Perfectly Inelastic Demand
- ☐ Relatively elastic demand
- ☐ Relatively in-elastic demand
- ☐ Unit elasticity of demand

A. Perfectly Elastic demand

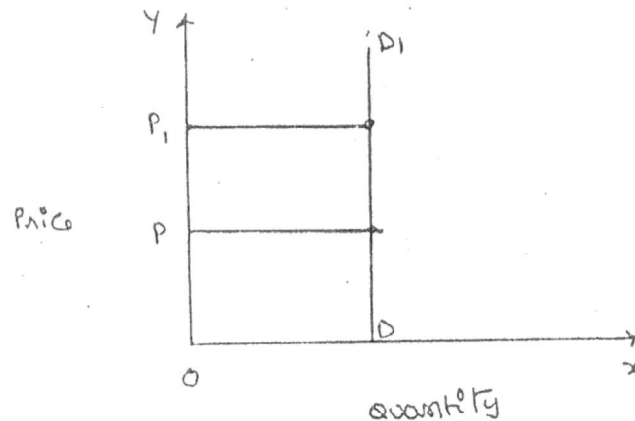


When small change in determinants of demand leads to an infinitely large change in quantity demanded, it is called perfectly or infinitely elastic demand. In this case $E = \infty$

The demand curve DD_1 is horizontal straight line. It shows that at "OP" price any amount is demanded and if price increases, the consumer will not purchase the commodity

B. Perfectly Inelastic Demand

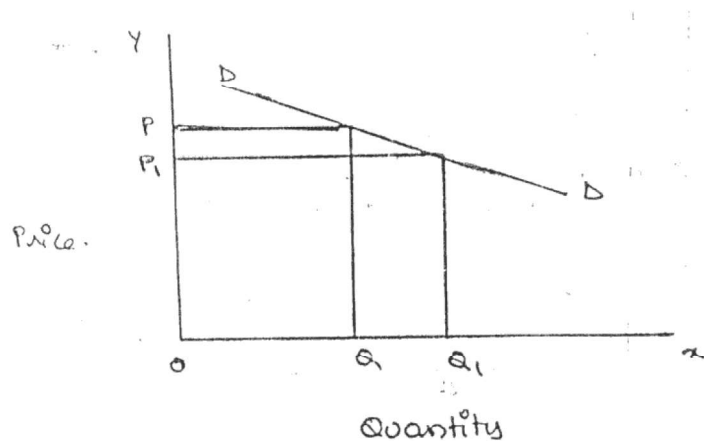
In this case, even a large change in determinants of demand fails to bring about a change in quantity demanded



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

C. Relatively Elastic Demand

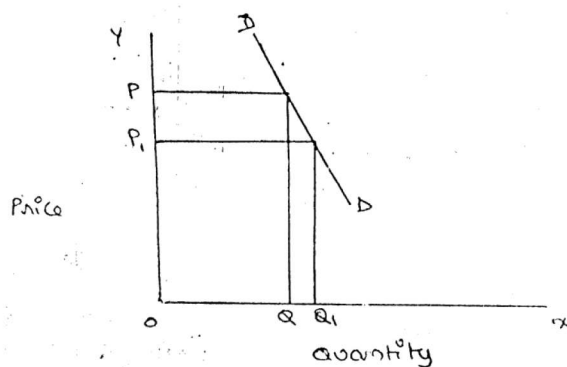
Demand changes more than proportionately to a change in determinants of demand. i.e. a small change in price leads to a very big change in the quantity demanded. In this case $E > 1$. This demand curve will be flatter.



When price falls from 'OP' to 'OP', amount demanded increase from "OQ' to "OQ1' which is larger than the change in price

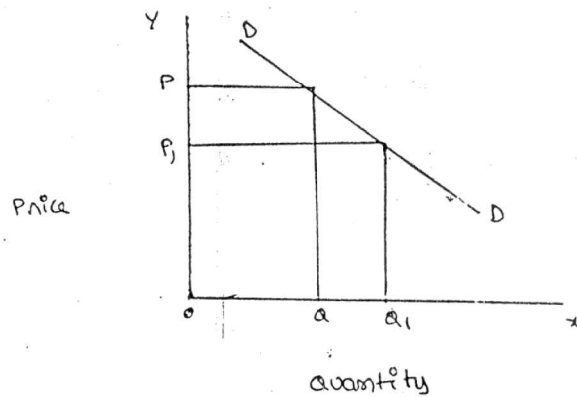
D. Relatively In-Elastic Demand

Quantity demanded changes less than proportional to a change in determinants in demand. A large change in price leads to small change in amount demanded. Here $E < 1$. Demanded curve will be steeper.



When price falls from "OP' to 'OP1 amount demanded increases from OQ to OQ1, which is smaller than the change in price.

E. Unit Elasticity of Demand: The change in demand is exactly equal to the change in determinants in demand. When both are equal $E=1$ and elasticity is said to be unitary.



When price falls from 'OP' to 'OP1' quantity demanded increases from 'OP' to 'OP1', quantity demanded increases from 'OQ' to 'OQ1'. Thus a change in price has resulted in an equal change in quantity demanded so price elasticity of demand is equal to unity.

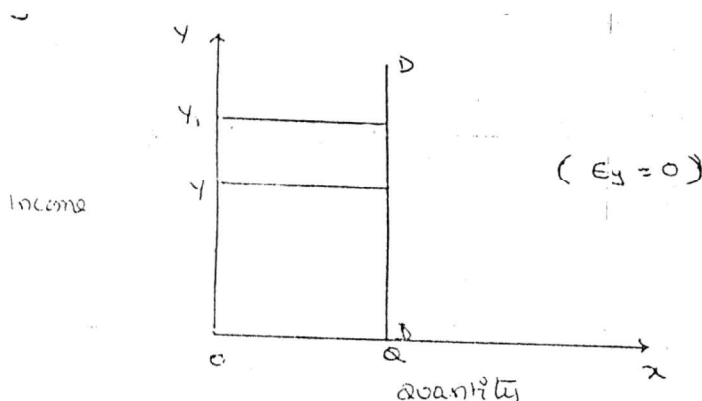
2. Income Elasticity of Demand

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

$$\text{Income elasticity} = \frac{\% \text{ change in quantity demand}}{\% \text{ change in income}}$$

A. Zero Income Elasticity

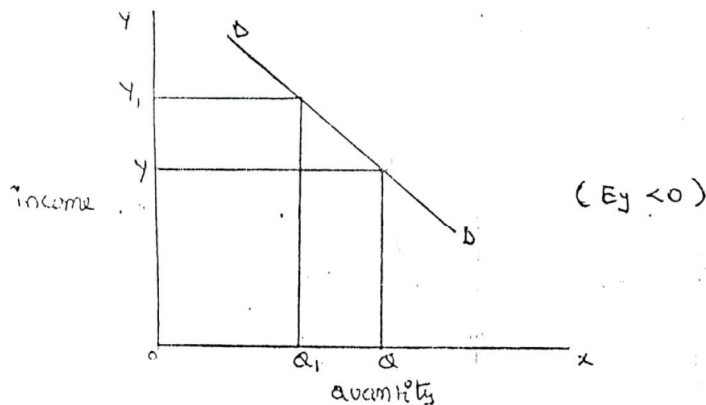
Quantity demanded remains the same, even though money income increases. Symbolically, it can be expressed as $E_y = 0$. It can be depicted in



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

B. Negative Income Elasticity

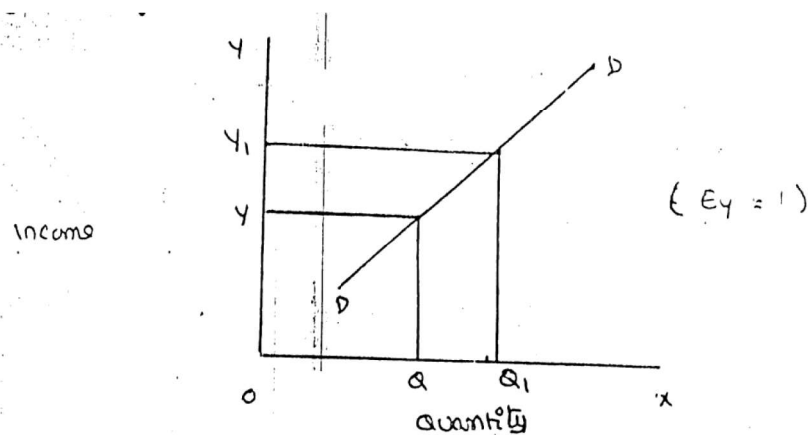
When income increases, quantity demanded falls. In this case, income elasticity of demand is negative. i.e., $E_y < 0$



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

C. Unit Income Elasticity

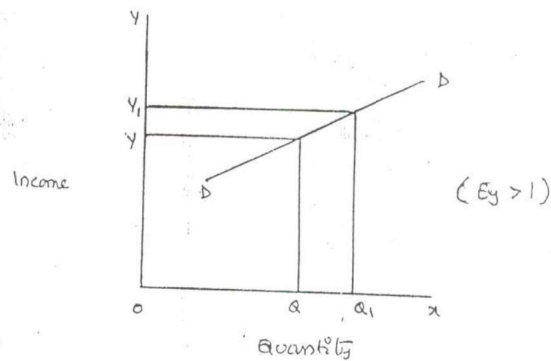
When an increase in income brings about a proportionate increase in quantity demanded, and then income elasticity of demand is equal to one. $E_y = 1$



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

D. Income Elasticity Greater than Unity

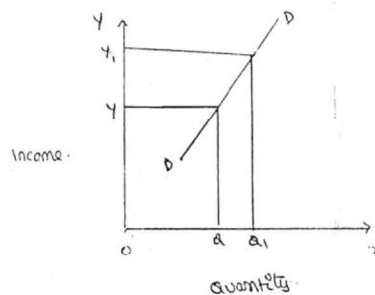
In this case, an increase in come brings about a more than proportionate increase in quantity demanded. Symbolically it can be written as $E_y > 1$.



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

E. Income Elasticity Less than Unity

When income increases quantity demanded also increases but less than proportionately. In this case $E < 1$.



An increase in income from OY to OY1, brings what an increase in quantity demanded from OQ to OQ1, But the increase in quantity demanded is smaller than the increase in income. Hence, income elasticity of demand is less than one.

3. Cross Elasticity of Demand

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

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

IMPORTANCE OF ELASTICITY OF DEMAND

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

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

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

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

PROMOTIONAL ELASTICITY OF DEMAND:

The promotional elasticity of demand is a measure of the responsiveness of demand for a commodity change in outlay on advertisements and other promotional efforts.

$$E_p = \frac{\% \text{ change in quantity demand}}{\% \text{ change in promotional expenditure}}$$

FORECASTING SOURCES OF DATA:

The main challenge to forecast demand is to select an effective technique.

There is no particular method that enables organizations to anticipate risks and uncertainties in future.

Generally, there are two approaches to demand forecasting.

The first approach involves forecasting demand by collecting information regarding the buying behaviour of consumers from experts or through conducting surveys. On the other hand, the second method is to forecast demand by using the past data through statistical techniques.

1. survey method
2. statistical method

1. survey method: Survey method is one of the most common and direct methods of forecasting demand in the short term.

This method encompasses the future purchase plans of consumers and their intentions. In this method, an organization conducts surveys with consumers to determine the demand for their existing products and services and anticipate the future demand accordingly

2.statistical method: Statistical methods are complex set of methods of demand forecasting. These methods are used to forecast demand in the long term. In this method, demand is forecasted on the basis of historical data and cross-sectional data

1. Trend Projection Method: Trend projection or least square method is the classical method of business forecasting. In this method, a large amount of reliable data is required for forecasting demand. In addition, this method assumes that the factors, such as sales and demand, responsible for past trends would remain the same in future.

In this method, sales forecasts are made through analysis of past data taken from previous year's books of accounts. In case of new organizations, sales data is taken from organizations already existing in the same industry. This method uses time-series data on sales for forecasting the demand of a product.

2. Barometric Method:

This method was introduced by Harvard Economic Service in 1920 and further revised by National Bureau of Economic Research

In barometric method, demand is predicted on the basis of past events or key variables occurring in the present. This method is also used to predict various economic indicators, such as saving, investment, and income. This technique helps in determining the general trend of business activities. The main advantage of this method is that it is applicable even in the absence of past data. However, this method is not applicable in case of new products. In addition, it loses its applicability when there is no time lag between economic indicator and demand.

3. Econometric Methods:

Econometric methods combine statistical tools with economic theories for forecasting. The forecasts made by this method are very reliable than any other method. An econometric model consists of two types of methods namely, regression model and simultaneous equations model.

i. Regression Methods:

Refer to the most popular method of demand forecasting. In regression method, the demand function for a product is estimated where demand is dependent variable and variables that determine the demand are independent variable.

ii. Exogenous Variables:

Refer to inputs of the model. Examples are time, government spending, and weather conditions.

These variables are determined outside the model.

Problems

Problem 1 — Basic Promotional Elasticity

- Initial quantity demanded (Q_1) = 10,000 units
- New quantity demanded (Q_2) = 12,000 units
- Initial promotional expenditure (P_1) = ₹50,000
- New promotional expenditure (P_2) = ₹60,000

Solution

1. % change in quantity

$$\frac{Q_2 - Q_1}{Q_1} = \frac{12,000 - 10,000}{10,000} = \frac{2,000}{10,000} = 0.20 = 20\%$$

2. % change in promotion

$$\frac{P_2 - P_1}{P_1} = \frac{60,000 - 50,000}{50,000} = \frac{10,000}{50,000} = 0.20 = 20\%$$

3. Promotional elasticity

$$E_p = \frac{20\%}{20\%} = 1$$

Problem 2 — Elastic Demand Response

- Q_1 = 5,000 units
- Q_2 = 7,500 units
- P_1 = ₹20,000
- P_2 = ₹24,000

Solution

1. % change in quantity

$$2. \quad \frac{7,500 - 5,000}{5,000} = \frac{2,500}{5,000} = 0.50 = 50\%$$

% change in promotion

$$\frac{24,000 - 20,000}{20,000} = \frac{4,000}{20,000} = 0.20 = 20\%$$

3. Promotional elasticity

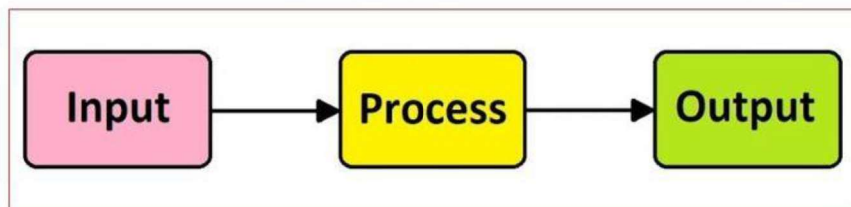
$$E_p = \frac{50\%}{20\%} = 2.5$$

Unit 2

Production, cost analysis and pricing decisions

Production:

Production: the process of converting raw-material into finished goods or services is called production.



Production function:

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

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

Where Q= stands for the quantity of output and

F= function

L1=land

L2=labour

C=capital

O=Organization

Land, labour, capital and organization. Here output is the function of inputs. Hence output becomes the dependent variable and inputs are the independent variables.

Assumptions

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

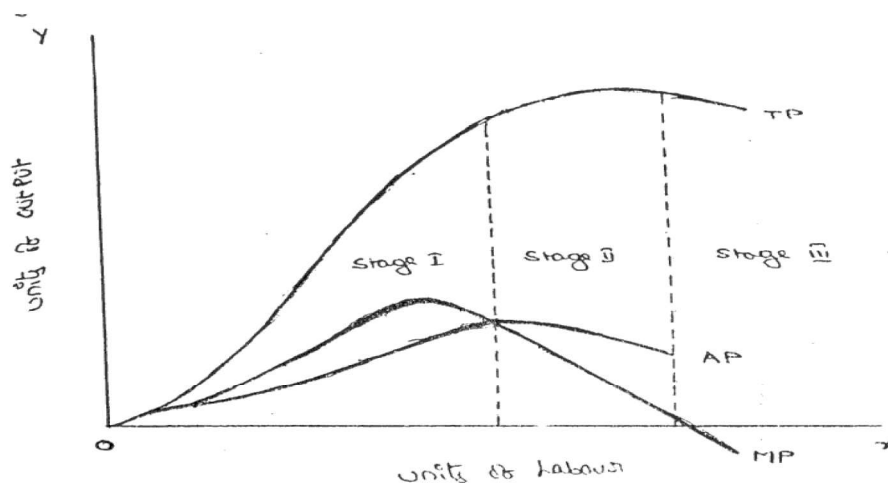
Production Function with One Variable Input and Law of Returns

The law of returns to scale explains the behaviour of the total output in response to change in the scale of the firm, i.e., in response to a simultaneous to changes in the scale of the firm, i.e., in response to a simultaneous and proportional increase in all the inputs. More precisely, the Law of returns to scale explains how a simultaneous and proportionate increase in all the inputs affects the total output at its various levels.

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

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

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



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

Production Function with Two Variable Input and Law Of Returns

Here we assume that only two input factors are required to produce a Product. The curves, which represent the different combinations of inputs producing a particular quantity of output. Here the producer have the scope to select any combination of these two factors for required level of output.

For a given output level firm's production become,

$$Q = f(L, C)$$

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

Assumptions:

- ☐ There are only two factors of production, viz. labour and capital.
- ☐ The two factors can substitute each other up to certain limit
- ☐ The substitutability of the two inputs depends up on the nature of production.
- ☐ The technology is given over a period

This can be explained with the help of an arithmetical example

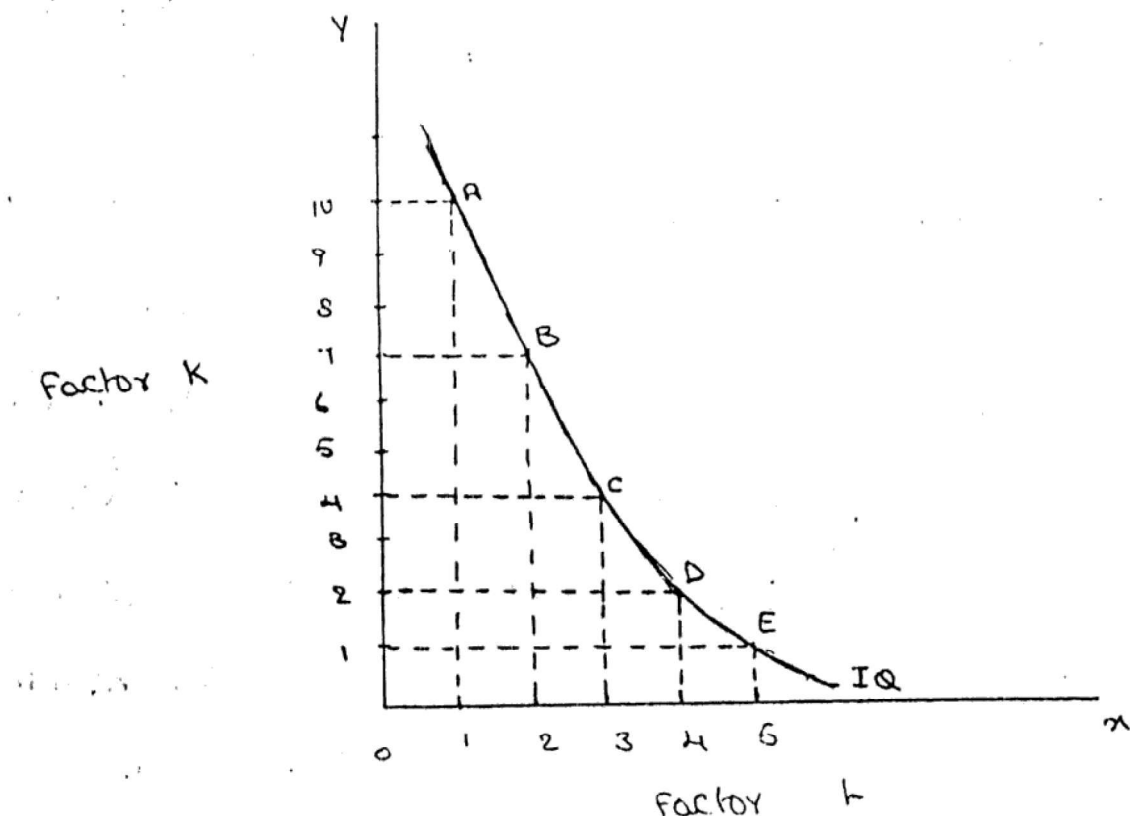
Combinations	Labour(units)	Capital(units)	Output(quintals)
A	1	10	50
B	2	7	50
C	3	4	50
D	4	4	50
E	5	1	50

Combination 'A' represent 1 unit of labour and 10 units of capital and produces '50' quintals of a product all other combinations in the table are

assumed to yield the same given output of a product say '50' quintals by employing any one of the alternative combinations of the two factors labour and capital.

If we plot all these combinations on a paper and join them, we will get continuous and smooth curve called Iso-product curve as shown below.

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



Law of returns to scale:

Law of Returns to Scale: Definition, Explanation and Its Types!

In the long run all factors of production are variable. No factor is fixed. Accordingly, the scale of

production can be changed by changing the quantity of all factors of production.

Definition:

“The term returns to scale refers to the changes in output as all factors change by the same proportion.” -Koutsoyiannis.

“Returns to scale relates to the behaviour of total output as all inputs are varied and is a long run concept”. -Leibhafskey.

Returns to scale are of the following three types:

1. Increasing Returns to scale.
2. Constant Returns to Scale
3. Diminishing Returns to Scale

1. Increasing Returns to Scale:

Increasing returns to scale or diminishing cost refers to a situation when all factors of production

are increased, output increases at a higher rate. It means if all inputs are doubled, output will also

increase at the faster rate than double. Hence, it is said to be increasing returns to scale. This

increase is due to many reasons like division external economies of scale

2. Diminishing Returns to Scale:

Diminishing returns or increasing costs refer to that production situation, where if all the factors of production are increased in a given proportion, output increases in a smaller proportion. It means, if inputs are doubled, output will be less than doubled. If 20 percent increase in labour and capital is followed by 10 percent increase in output, then it is an instance of diminishing returns to scale. The main cause of the operation of diminishing returns to scale is that internal and external economies are less than internal and external diseconomies.

3. Constant Returns to Scale:

Constant returns to scale or constant cost refers to the production situation in which output increases exactly in the same proportion in which factors of production are increased. In simple terms, if factors of production are doubled output will also be doubled. In this case internal and external economies are exactly equal to internal and external diseconomies. This situation arises when after reaching a certain level of production, economies of scale are balanced by diseconomies of scale.

Cobb-Douglas Production Function:

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

$$P = b (L^a C^{1-a})$$

Where P=output

C=Capital

L= Labour

$1-a$ = elasticity of demand

b=positive constant

Assumptions:

It has the following assumptions

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

ISOQUANTS AND ISOCOST

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

Isoquants are the curves, which represent the different combinations

of inputs producing a particular quantity of output. Any combination on the isoquant represents the same level of output.

For a given output level firm's production becomes,

$$Q = f(L, C)$$

Where 'Q', is the units of output is a function of the quantity of two inputs 'L' and 'C'. Thus an iso-quant shows all possible combinations of two inputs, which are capable of producing equal or a given level of output. Since each combination yields same output, the producer becomes indifferent towards these combinations.

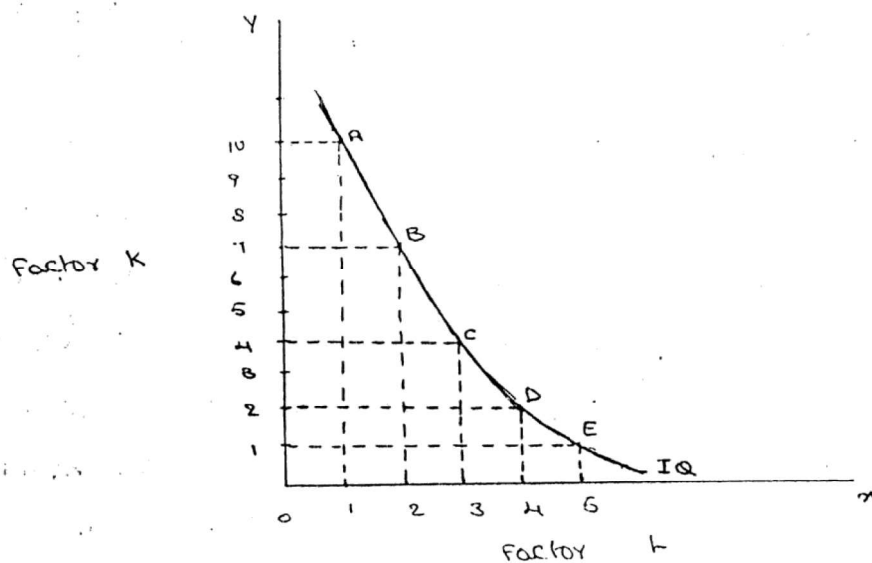
Assumptions:

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

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

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

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



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

Features of iso-quant:

- ☐ Down word slope:
- ☐ Convex to origin
- ☐ Do not intersect
- ☐ Do not meet axis

ISO COSTS

Iso costs refers to that cost curve that represent the combination of input that will cost the producer the same amount of money.

“Iso costs denotes particular level of total cost for a given level of production.”
If the level of production changes the total cost changes and thus iso cost curves move upwards and vice versa.

Examples:

Each costing 1 lakh, 1.5 lakh, 2 lakh for output level of 20000, 30000, 40000 respectively.

Marginal Rate of Technical Substitution (MRTS) Or The Slope Of Isoquant Curve

“MRTS represent the rate at which one input factor is substituted with the other to attain given level of output.”

“In other words the lesser units of one factor will compensates by increasing amount of other factor to produce same level of output.”

Example:

MRTS is the ratio between two input factors.

combination	capital	labour	MRTS
A	1	20	----
B	2	15	5:1
C	3	11	4:1
D	4	8	3:1
E	5	6	2:1
F	6	5	1:1

Change in input

MRTS= -----

Change in other input

COST CONCEPTS:

Cost of production has a special meaning. It is all of the payments or expenditures necessary to obtain the factors of production of land, labour, capital and management required to produce a commodity. It represents money costs which we want to incur in order to acquire the factors of production.

1. OPPORTUNITY COST AND ACTUAL COST:

Opportunity cost refers to the loss of earnings due to opportunities foregone due to scarcity of resources. The opportunity cost may be defined as the expected returns from the second best use of the resources foregone due to the scarcity of resources. The opportunity cost it is also called Alternative cost.

2. DIRECT COST AND INDIRECT COST:

A direct or traceable cost is that which can be identified easily and indisputably with a unit of operation (costing unit/cost centre). Common indirect costs are those that are not traceable to any plant, department or operation, or to any

individual final product. To take an example, the salary of a divisional manager, when division is a costing unit, will be a Direct Cost.

3. EXPLICIT COST AND IMPLICIT COST:

Explicit costs refer to those which fall under actual or business costs entered in the books of accounts. The payments for wages and salaries, materials, license fee, insurance premium, depreciation charges are the examples of explicit costs. These costs involve cash payments and are recorded in normal accounting practices.

Implicit costs may be defined as the earning expected from the second best alternative use of resources. For instance, suppose an entrepreneur does not utilize his services in his own business and works as a manager in some other firm on a salary basis.

4. FIXED COST AND VARIABLE COST:

Fixed costs are those costs which are fixed in volume for a certain given output. Fixed cost does not vary with variation in the output between zero and certain level of output. The costs that do not vary for a certain level of output are known as fixed cost.

- (i) Cost of managerial and administrative staff.
- (ii) Depreciation of machinery, building and other fixed assets, and
- (iii) Maintenance of land, etc. The concept of fixed cost is associated with short-run.

Variable costs are those which vary with the variation in the total output. They are a function of output. Variable costs include cost of raw materials, running cost on fixed capital, such as fuel, repairs, routine maintenance expenditure, direct labour charges associated with the level of output, and the costs of all other inputs that vary with output.

5. TOTAL, AVERAGE AND MARGINAL COST:

Total cost represents the value of the total resource requirement for the production of goods and services. It refers to the total outlays of money expenditure, both explicit and implicit, on the resources used to produce a given level of output. It includes both fixed and variable costs. The total cost for a given output is given by the cost function.

Average cost:

Average cost (AC) is of statistical nature, it is not actual cost. It is obtained by dividing the total

cost (TC) by the total output (Q), i.e.

$AC = TC / Q = \text{average cost}$

Marginal cost:

Marginal cost is the addition to the total cost on account of producing an additional unit of the product. Or, marginal cost is the cost of marginal unit produced. Given the cost function, it may be defined as

$$MC = TC / Q$$

6. SHORT RUN COST AND LONG RUN COST:

Short-run costs are the costs which vary with the variation in output, the size of the firm remaining the same. In other words, short-run costs are the same as variable costs. Long-run costs are, by implication, the same as fixed costs. In the long-run, however, even the fixed costs become variable costs as the size of the firm or scale of production increases.

7. ACCOUNTING COST AND ECONOMIC COST:

Accounting cost is based upon accounting records in the books of accounts, costs are recorded in the books of accounts, when they are actually incurred. Accounting follows accrual concept, Accounting records based upon legal scanity of the business transaction. Accounting costs are explicit costs and must be paid. Assets as part of accounting cost are valued at book value.

Economic costs consists of both explicit and implicit costs. In other words, economic costs include both recorded and unrecorded costs. Assets are valued at replacement cost, i.e., market value in case of economic cost.

Cost Functions

Cost functions show the relationship between cost and output.

1. Total Cost Function (TC): $TC = f(Q)$
2. Average Cost Function (AC): $AC = TC / Q$
3. Marginal Cost Function (MC): $MC = \text{change in } TC / \text{change in } Q$
 - These functions help firms decide how much to produce to minimize cost and maximize profit.

COST CURVES:

Meaning of Short-run and Long-run:

In Economics, distinction is often made between the short-run and longrun. By short-run is meant that period of time within which a firm can vary its output by varying only the amount of variable factors, such as labour and raw material.

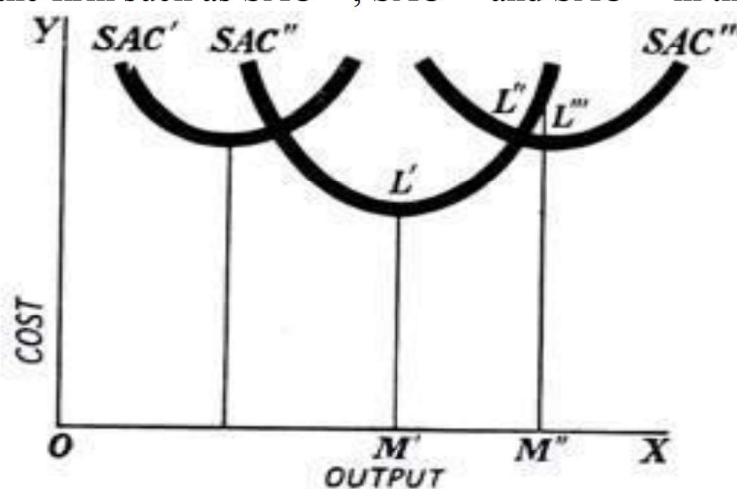
In the short-run period, the fixed factors such as capital equipment, management personnel, the factory buildings, etc., cannot be altered.

Short-run Fixed and Variable Costs:

We have already drawn a distinction between prime (or variable) costs and supplementary (or fixed) costs. During the short period, only the prime costs relating to labour and raw materials can be varied, whereas the fixed costs remain the same. But, during the long period, even the fixed costs relating to plant and machinery, staff salaries, etc., can be varied. That is, in the long run, all costs are variable, and no costs are fixed.

Short-run Cost Curves:

We may repeat that, in the short-run, a firm will adjust output to demand by varying the variable factors. If all the factors of production can be used in varying proportions, it means that the scale of operations of the firm can be changed. Each time, the scale of operations is changed, a new short-run cost curve will have to be drawn for the firm such as SAC' , SAC'' and SAC''' in the next diagram.



Short-run Cost Curves
Fig. 23.5

It should be clearly understood that only in the long-run can the scale of operations be altered; in the short-run, it will be fixed, and the average cost of output above or below the optimum level will necessarily rise along the short-run cost curve in question, whether it be SAC , SAC_2 and SAC_3 . A long-run average cost will show what the long-run cost of producing each output will be. It will be seen, in the that the short-run average cost curve SAC , has a lower minimum point than either the curves SAC_2 , and SAC_3 . The optimum output of the firm is Obtained.

SUPPLY FUNCTION:

The supply function is the mathematical function explaining the quantity supplied in terms of its various determinants, including price; thus the algebraic representation of the supply curve. The supply curve is a two-dimensional representation of a supply function, with supply shown as a function of price on the supply of labour.

Supply Function

$$S_x = f(P_x, P_f, T, t, S)$$

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

SX = Supply of goods

PX = Price

PF = Factor input employed (used) for production.

- Raw material
- Human resources
- Machinery

O = Factors outside economic sphere.

T = Technology.

t = Taxes.

S = Subsidies

PRICING DECISIONS:

Pricing of a product or service refers to the fixation of a selling price to a product or service provided by the firm. Selling price is the amount for which customers are charged for some product manufactured or for a service provided by the firm.

PERFECT COMPETITION:

Perfect competition is a market structure characterized by a complete absence of rivalry among the individual firms. A perfectly competitive firm is one whose output is so small in relation to market volume that its output decisions have no perceptible impact on price. No single producer or consumer can have control over the price or quantity of the product.

Characteristic features of perfect market:

1. Large number of buyers and sellers
2. Homogeneous product
3. Perfect knowledge about the market
4. Ruling prices
5. Absence of transport cost
6. Perfect mobility of factors
7. Profit maximization
8. Freedom in decision making

PRICING UNDER PERFECT COMPETITION:

Demand and supply curves can be used to analyze the equilibrium market price and the optimum output.

1. If quantity demanded is equal to quantity supplied at a particular price then the market is in equilibrium
2. If quantity demanded is more than the quantity supplied then market price may not be stable. i.e., it will rise.
3. If quantity demanded is less than quantity supplied then market price is fixed not in an equilibrium position.

When the price at which quantity demanded is equal to quantity supplied, buyers as well as sellers are satisfied. If price is greater than the equilibrium price, some sellers would not be able to sell the commodity. So they would try to dispose the unsold stock at a lower price. Thus the price will go on declining till they get equalized ($Q_d = Q_s$). The various possible changes in Demand and supply are expressed in the following graphs to understand the price fluctuations in the market.

MONOPOLY:

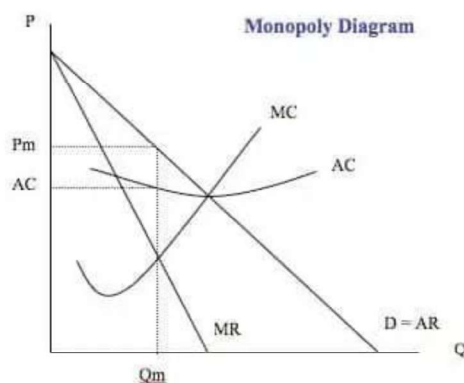
Mono means single, poly means seller and hence monopoly is a market structure where only one sells the goods and many buyers buy the same. Monopoly lies at the opposite extreme from perfect competition on the market structure continuum. A firm produces the entire supply of a particular good or service that has no close substitute.

Characteristic Features:

1. A single seller in the market
2. There are no close substitutes
3. There is a restriction for the entry and exit for the firms in the market
4. Imperfect dissemination of information.

PRICING UNDER MONOPOLY

A firm under monopoly faces a downward sloping demand curve or average revenue curve. Further, in monopoly, since average revenue falls as more units of output are sold, the marginal revenue is less than the average revenue. In other words, under monopoly the MR curve lies below the AR curve. The Equilibrium level in monopoly is that level of output in which marginal revenue equals marginal cost. The producer will continue producer as long as marginal revenue exceeds the marginal cost. At the point where MR is equal to MC the profit will be maximum and beyond this point the producer will stop producing. It can be seen from the diagram that up till OM output, marginal revenue is greater than marginal cost, but beyond OM the marginal revenue is less than marginal



OLIGOPOLY: The **Oligopoly Market** characterized by few sellers, selling the homogeneous or differentiated products. In other words, the Oligopoly market structure lies between the pure monopoly and monopolistic competition, where few sellers dominate the market and have control over the price of the product.

Features of Oligopoly Market



1. Few Sellers: Under the Oligopoly market, the sellers are few, and the customers are many. Few firms dominating the market enjoys a considerable control over the price of the product.

2. Interdependence: it is one of the most important features of an Oligopoly market, wherein, the seller has to be cautious with respect to any action taken by the competing firms. Since there are few sellers in the market, if any firm makes the change in the price or promotional scheme, all other firms in the industry have to comply with it, to remain in the competition.

3. Advertising: Under Oligopoly market, every firm advertises their products on a frequent basis, with the intention to reach more and more customers and increase their customer base. this are due to the advertising that makes the competition intense.

4. Competition: It is genuine that with a few players in the market, there will be an intense competition among the sellers. Any move taken by the firm will have a considerable impact on its rivals. Thus, every seller keeps an eye over its rival and be ready with the counterattack.

5. Entry and Exit Barriers: The firms can easily exit the industry whenever it wants, but has to face certain barriers to entering into it. These barriers could be Government license, Patent, large firm' s economies of scale, high capital requirement, complex technology, etc. Also, sometimes the government regulations favour the existing large firms, thereby acting as a barrier for the new entrants.

6. Lack of Uniformity: There is a lack of uniformity among the firms in terms of their size, some are big, and some are small.

PRICING UNDER OLIGOPOLY: We shall confine our study to the non-collusive oligopoly model of Sweezy, and to the collusive oligopoly models relating to cartels and price leadership.

1. The Sweezy Model of Kinked Demand Curve: Sweezy presented the kinked demand curve analysis to explain price rigidities often observed in oligopolistic markets. Sweezy assumes that if the oligopolistic firm lowers its price, its rivals will react by matching that price cut in order to avoid losing their customers. Thus the firm lowering the price will not be able to increase its demand much. This portion of its demand curve is relatively inelastic.

On the other hand, if the oligopolistic firm increases its price, its rivals will not follow it and change their prices. Thus the quantity demanded of this firm will fall considerably. This portion of the demand curve is relatively elastic. In these two situations, the demand curve of the oligopolistic firm has a kink at the prevailing market price which explains price rigidity.

Assumptions:

- (1) There are few firms in the oligopolistic industry.
- (2) The product produced by one firm is a close substitute for the other firms.
- (3) The product is of the same quality. There is no product differentiation.
- (4) There are no advertising expenditures.
- (5) There is an established or prevailing market price for the product at which all the sellers are satisfied.

MONOPOLISTIC COMPETITION:

Monopolistic Competition refers to the market situation in which there is a keen competition, but neither perfect nor pure, among a group of a large number of small producers or suppliers having some degree of monopoly because of the differentiation of their products. Thus, we can say that monopolistic competition (or imperfect competition) is a mixture of competition and a certain degree of monopoly, on the basis of a correct appraisal of the market situation.

Definition:

1. Monopolistic Competition refers to competition among a large number of sellers producing close but not perfect substitutes for each other.

2. According to Prof. Lerner – “The condition of imperfect competition arises when a seller has to face the falling demand curve.”

characteristics of Monopolistic Competition

1. Large Number of Sellers: There is large number of sellers producing differentiated products. So, competition among them is very keen. Since number of sellers is large, each seller produces a very small part of market supply. So no seller is in a position to control price of product. Every firm is limited in its size.

2. Product Differentiation: It is one of the most important features of monopolistic competition. In perfect competition, products are homogeneous in nature. On the contrary, here, every producer tries to keep his product dissimilar than his rival's product in order to maintain his separate identity. This boosts up the competition in market. So, every firm acquires some monopoly power

3. Freedom of Entry and Exit: This feature leads to stiff competition in market. Free entry into the market enables new firms to come with close substitutes. Free entry or exit maintains normal profit in the market for a longer span of time

4. Selling Cost: It is a unique feature of monopolistic competition. In such type of market, due to product differentiation, every firm has to incur some additional expenditure in the form of selling cost. This cost includes sales promotion expenses, advertisement expenses, salaries of marketing staff, etc. But on account of homogeneous product in perfect competition and zero competition in monopoly, selling cost does not exist there.

5. Absence of Interdependence: Large numbers of firms are different in their size. Each firm has its own production and marketing policy. So no firm is influenced by other firm. All are independent.

6. Two Dimensional Competition

Monopolistic competition has two types of competition aspects viz.

Price competition i.e. firms compete with each other on the basis of price.

Non price competition i.e. firms compete on the basis of brand, product quality advertisement.

7. Concept of Group

In place of Marshallian concept of industry, Chamberlin introduced the concept of Group under monopolistic competition. An industry means a number of firms producing identical product. A group means a number of firms producing differentiated products which are closely related.

8. Falling Demand Curve

In monopolistic competition, a firm is facing downward sloping demand curve i.e. elastic demand curve. It means one can sell more at lower price and vice versa.

Price discrimination

Price discrimination is the practice of charging a different price for the same good or service. There are three types of price discrimination – first-degree, second-degree, and third-degree price discrimination. Price discrimination is one of the competitive practices used by larger, established businesses in an attempt to profit from differences in supply and demand from consumers. Price discrimination is a pricing strategy that occurs when a business or seller charges a different price to various customers for the same product or service. A company can enhance its profits by charging each customer the maximum amount he is willing to pay, eliminating consumer surplus, but it is often a challenge to determine what that exact price is for every buyer. For price discrimination to succeed, businesses must understand their customer base and its needs, and there must be familiarity with the various types of price discrimination used in economics. The most common types of price discrimination are first, second and third degree discrimination

First Degree Price Discrimination

In an ideal business world, companies would be able to eliminate all consumer surplus through first degree price discrimination. This type of pricing strategy takes place when businesses can accurately determine what each customer is willing to pay for a specific product or service and selling that good or service for that exact price.

In some industries, such as used car or truck sales, an expectation to negotiate final purchase price is part of the buying process. The company selling the used car can gather information through data mining relating to each buyer's past purchase habits, income, budget and maximum available output to determine what to charge for each car sold. This pricing strategy is time consuming and difficult to perfect for most businesses, but it allows the seller to capture the highest amount of available profit for each sale.

Second Degree Price Discrimination

In second degree price discrimination, the ability to gather information on every potential buyer is not present. Instead, companies price products or services differently based on the preferences of various groups of consumers.

Most often, businesses apply second-degree price discrimination through quantity discounts; customers who buy in bulk receive special offers that are not granted to those who buy a single product. This type of pricing strategy is used

most often in warehouse retailers, such as Sam's Club or Costco, but it can also be seen in companies that offer loyalty or rewards cards to frequent customers.

Second degree price discrimination does not altogether eliminate consumer surplus, but it does allow a company to increase its profit margin on a subset of its consumer base.

Third Degree Price Discrimination

Third degree price discrimination occurs when companies price products and services differently based on the unique demographics of subsets of its consumer base, such as students, military personnel or seniors.

Companies can understand the broad characteristics of consumers more easily than the buying preferences of individual buyers. Third degree price discrimination provides a way to reduce consumer surplus by catering to the price elasticity of demand of specific consumer subsets.

This type of pricing strategy is often seen in movie theater ticket sales, admission prices to amusement parks or restaurant offers. Consumer groups that may otherwise not be able or willing to purchase a product due to their lower income are captured by this pricing strategy, increasing company profits.

Multiple Products

As the name indicates multiple products signifies production of more than one product. The

traditional theory of price determination assumes that a firm produces a single homogenous product. But firms in reality usually produce more than one product and then there exists interrelationships between those products. Such products are joint products or multi-products. In joint products the inputs are common in the production process and in multi-products the inputs are independent but have common overhead expenses. Following are the pricing methods followed –

Full Cost Pricing Method: Full cost plus pricing is a price-setting method under which you add together the direct material cost, direct labour cost, selling and administrative cost, and overhead costs for a product and add to it a markup percentage in order to derive the price of the product. The pricing formula is

$$\text{Pricing formula} = \frac{\text{Total production costs} - \text{Selling and administration costs}}{\text{Number of units expected to sell}} \text{ Markup}$$

This method is most commonly used in situations where products and services are provided based on the specific requirements of the customer. Thus, there is reduced competitive pressure and no standardized product being provided. The method may also be used to set long-term prices that are sufficiently high to ensure a profit after all costs have been incurred.

Marginal Cost Pricing Method

The practice of setting the price of a product to equal the extra cost of producing an extra unit of output is called marginal pricing in economics. By this policy, a producer charges for each product unit sold, only the addition to total cost resulting from materials and direct labour. Businesses often set prices close to marginal cost during periods of poor sales.

For example, an item has a marginal cost of \$2.00 and a normal selling price is \$3.00, the firm selling the item might wish to lower the price to \$2.10 if demand has waned. The business would choose this approach because the incremental profit of 10 cents from the transaction is better than no sale at all.

Transfer Pricing

Transfer Pricing relates to international transactions performed between related parties and covers all sorts of transactions. The most common being distributorship, R&D, marketing, manufacturing, loans, management fees, and IP licensing.

All intercompany transactions must be regulated in accordance with applicable law and comply with the "arm's length" principle which requires holding an updated transfer pricing study and an intercompany agreement based upon the study.

Some corporations perform their intercompany transactions based upon previously issued studies or an ill advice they have received, to work at a "cost plus X%". This is not sufficient, such a decision has to be supported in terms of methodology and the amount of overhead by a proper transfer pricing study and it has to be updated each financial year.

Dual Pricing

In simple words, different prices offered for the same product in different markets is dual pricing. Different prices for same product are basically known as dual pricing. The objective of dual pricing is to enter different markets or a new market with one product offering lower prices in foreign country.

There are industry specific laws or norms which are needed to be followed for dual pricing. Dual pricing strategy does not involve arbitrage. It is quite commonly followed in developing countries where local citizens are offered the same products at a lower price for which foreigners are paid more.

Price Effect

Price effect is the change in demand in accordance to the change in price, other things remaining constant. Other things include – Taste and preference of the

consumer, income of the consumer, price of other goods which are assumed to be constant. Following is the formula for price effect

$$\text{Price Effect} = \frac{\text{Proportionate change in quantity demanded of X}}{\text{Proportionate change in price of X}}$$

Substitution Effect

In this effect the consumer is compelled to choose a product that is less expensive so that his satisfaction is maximized, as the normal income of the consumer is fixed. It can be explained with the below examples –

- Consumers will buy less expensive foods such as vegetables over meat.
- Consumers could buy less amount of meat to keep expenses in control.

Income Effect

Change in demand of goods based on the change in consumer's discretionary income. Income effect comprises of two types of commodities or products

Normal goods – If there is a price fall, demand increases as real income increases and vice versa.

Inferior goods – In case of inferior goods, demand increases due to an increase in the real income

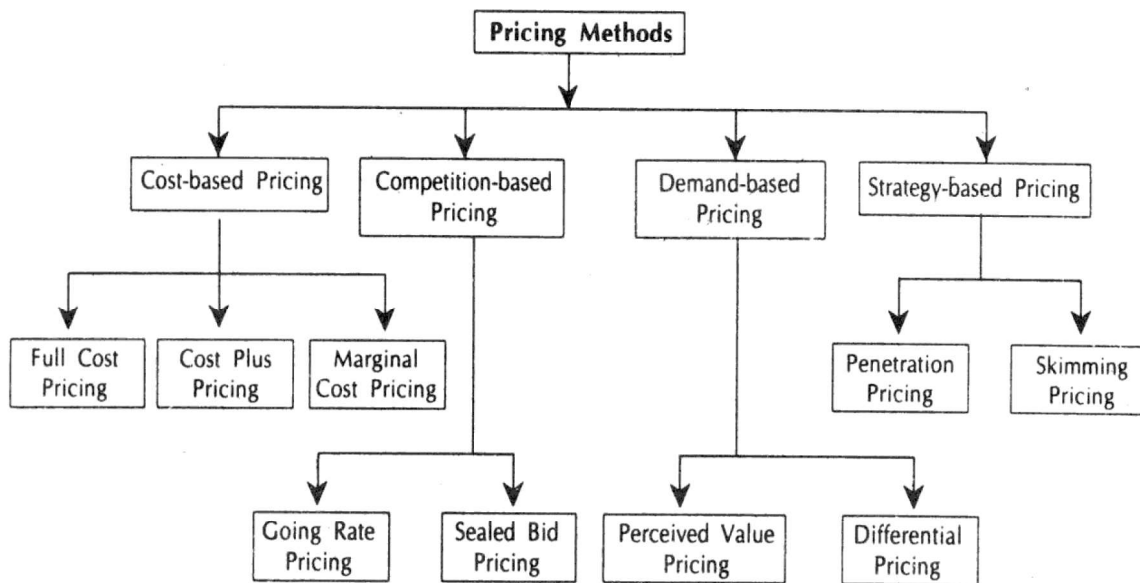
PRICING METHODS

- ☐ Pricing is an exchange value of the commodity from seller to buyer.
- ☐ Fixing price for products is very important exercise. Under pricing will result in losses and over pricing will make the customers run away. To determine pricing in a scientific manner, it is necessary to understand the pricing objectives, pricing methods, pricing policies, and pricing procedures.
- ☐ Pricing for new products and services is relatively a difficult task. It is because there is no prior information available to fix the price.

PRICING OBJECTIVES:

- ☐ To maximize profits
- ☐ To increase sales
- ☐ To increase the market share
- ☐ To satisfy customers
- ☐ To meet the competition

PRICING MEHODS: the following are the different methods of pricing



Cost Based Pricing

There are three versions of the cost – based pricing.

1. Full – cost or break even pricing,
2. Cost plus pricing and
3. Marginal cost pricing.

1. Full Cost Pricing: under this method the price of the product is equal to the cost of producing that product.

- ☐ Price of the product = cost of the product
- ☐ It is very easy to fix the price
- ☐ It is also called as break even pricing

2. Cost Plus Pricing: this is also called as full cost method or mark up pricing. Here average cost at normal capacity of output is ascertained and then conventional margin of profit is added to the cost to arrive at the price. In other words find out the product units total cost and add a percentage of profit to arrive at the selling price. This method is suitable where the cost keep fluctuating from time to time it is commonly followed in departmental stores, and other retail shops

The disadvantage of in this method is it is not suitable to meet competition.

3. Marginal Cost Pricing: in marginal cost pricing selling price is fixed in such a way that it covers fully the variable cost and contributes towards recovery of fixed cost fully or partly depending up on the market situation.

- ☐ This is also called as target pricing.
- ☐ Selling price = variable cost+ some rate of return

Competition based pricing

Some commodities are priced according to the competition in their Markets Thus we have

1. The going rate method of price and
2. The sealed bid pricing technique.

The Going Rate Method of Price

Under this method firm prices its new product according to the prevailing prices of comparable products in the market. If the product is new in the country, then its import cost – inclusive of the costs of certificates, insurance, and freight and customs duty, is used as the basis for pricing, Incidentally, the price is not necessarily equal to the import cost, but to the firm is either new in the country, or is a close substitute or complimentary to some other products, the prices of hitherto existing bands or / and of the related goods are taken in to a account while deciding its price.

The Sealed Bid Pricing Method

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

Demand Based Pricing

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

- ☐ Perceived value pricing and
- ☐ Differential pricing

Perceived Value Pricing: It 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. Differential pricing is nothing but price discrimination. It 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.

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

Skimming Pricing Method: When the product is introduced in the market for the first time, the company follows skimming method under this method the company fixes very high price for product. And decreases when they get maximum profits

Example: sony TV, dove

Market Penetration Pricing Method: It is exactly opposite to the skimming method. Here the price of the product is fixed at low prices after getting the customer attention they increase the price of products.

Example: services provided by the hotels.

Two part pricing method: The firms with market power can enhance profits by the strategy of two part pricing. In this method they charge the customer in two ways one is in the way of registration and the other is getting services provided by them.

Example: country clubs, golf courses

Block Pricing: It is other way of fixing prices for products. A firm with market power can enhance its profits. We see block pricing in our day to day life very frequently. Here certain number of units of products is offered as a package with a special price in such a way that there is a consumer surplus.

Example: six lux soaps in one pack, 5 maggi packets in one pack.

Commodity Bundling: here two or more different products bundled together and offered for sale at a single bundle price.

Peak Load Pricing: during the seasonal periods when the demand is likely higher a firm may enhance profits by setting high price in seasonal period

Cross Subsidization: under this method if firm has demand for two or more interdependent products at the time the firm fix normal price for one product and high price for other product for getting overall profitability.

Example: a computer company selling both hard ware and soft ware components at the time they provide hard ware components with normal prices and fix high price for software components.

Price controlled by government: Price controlled by government refers to a situation where the government sets limits on how high or low a price for a particular good or service can be. This is done to protect consumers, producers, or the overall economy.

There are two main types of government price controls:

1. Price Ceiling (Maximum Price)

- The government sets a maximum price that sellers cannot exceed.
- Used when the government wants to make essential goods affordable.
- Example: Rent control, caps on food or fuel prices.
- Possible outcome: Shortages, because at the lower price, demand increases while supply decreases.

2. Price Floor (Minimum Price)

- The government sets a minimum price that sellers must charge.
- Used to ensure producers earn a minimum income.
- Example: Minimum wage, guaranteed minimum prices for agricultural goods.
- Possible outcome: Surpluses, because at the higher price, supply increases while demand decreases.

Why governments use price controls

- Protect low-income households
- Prevent exploitation during shortages or crises
- Stabilize markets
- Support struggling industries

BREAK EVEN ANALYSIS (BEA): BEA refers to analysis of Break Even Point (BEP). The BEP is defined as a point non profit or non loss point.

It is important to determine BEP because it denotes the minimum volume of production to be undertaken to avoid losses.

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

“A firm is said to attain the BEP when its total revenue is equal to the total cost.”

Assumptions:

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

Merits:

- ☐ Information provided by the Break Even Chart can be understood more easily than those contained in the profit and Loss Account and the cost statement.
- ☐ Break Even Chart discloses the relationship between cost, volume and profit. It reveals how changes in profit. So, it helps management in decision-making.
- ☐ It is very useful for forecasting costs and profits long term planning and growth
- ☐ The chart discloses profits at various levels of production.
- ☐ It serves as a useful tool for cost control.

Demerits:

- ☐ Break-even chart presents only cost volume profits. It ignores other considerations such as capital amount, marketing aspects and effect of government policy etc., which are necessary in decision making.

- ☐ It is assumed that sales, total cost and fixed cost can be represented as straight lines. In actual practice, this may not be so.
- ☐ It assumes that profit is a function of output. This is not always true. The firm may increase the profit without increasing its output.
- ☐ A major drawback of BEC is its inability to handle production and sale of multiple products.

Key terms used in BEA:

- ☐ Fixed cost
- ☐ Variable cost
- ☐ Contribution
- ☐ Margin of safety
- ☐ Angle of incidence
- ☐ Profit volume ratio
- ☐ Break-Even-Point

Fixed cost: Expenses that do not vary with the volume of production are known as fixed expenses.

Eg. Manager's salary, rent and taxes, insurance etc. It should be noted that fixed changes are fixed only within a certain range of plant capacity. The concept of fixed overhead is most useful in formulating a price fixing policy. Fixed cost per unit is not fixed.

Variable Cost: Expenses that vary almost in direct proportion to the volume of production of sales are called variable expenses.

Eg. Electric power and fuel, packing materials consumable stores. It should be noted that variable cost per unit is fixed.

Contribution: Contribution is the difference between sales and variable costs and it contributed towards fixed costs and profit. It helps in sales and pricing policies and measuring the profitability of different proposals.

Contribution is a sure test to decide whether a product is worthwhile to be continued among different products.

$$\text{Contribution} = \text{Sales} - \text{Variable cost}$$

$$\text{Contribution} = \text{Fixed Cost} + \text{Profit.}$$

Margin of safety: Margin of safety is the excess of sales over the break even sales. It can be expressed in absolute sales amount or in percentage. It indicates

the extent to which the sales can be reduced without resulting in loss. A large margin of safety indicates the soundness of the business. The formula for the margin of safety is

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

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

- ☐ Increasing production
- ☐ Increasing selling price
- ☐ Reducing the fixed or the variable costs or both
- ☐ Substituting unprofitable product with profitable one

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

Profit Volume Ratio: is usually called P. V. ratio. It is one of the most useful ratios for studying the profitability of business. The ratio of contribution to sales is the P/V ratio. It may be expressed in percentage.

Therefore, every organization tries to improve the P. V. ratio of each product by reducing the variable cost per unit or by increasing the selling price per unit. The concept of P. V. ratio helps in determining break evenpoint, a desired amount of profit etc.

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

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

Break-divide

Even-equal

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

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

$$\text{Break Even point (In Rupees)} = \frac{\text{Fixed expenses}}{\text{Contribution}} \times 100$$

Representation of BEP:

- ☐ Total cost= total fixed cost + total variable cost $TC=TFC+TVC$
- ☐ The variable cost line is drawn first. It varies proportionately with volume of production and sales.
- ☐ The total cost line is derived by adding total fixed costs line to the variable cost line. Total cost line is parallel to variable cost line.
- ☐ The total revenue line starts from 0 point and increases along with volume of sales intersecting total cost line at BEP.
- ☐ The zone below the BEP is loss zone and the zone above is profit zone.
- ☐ OP is the quantity produced/sold at BEP
- ☐ OC is the cost of price at BEP
- ☐ The angle formed at BEP, that is the point of intersection of total revenue and total cost is called angle of "incidence"
- ☐ The larger the angle of incidence the higher the quantity of profit.
- ☐ Margin of safety refers to the excess of production or sale over and above the BEP of production or sale.

$$\text{Margin of safety} = OQ - OP$$

Determination of Break Even Point

- ☐ Selling price= fixed cost +variable cost+ profit
- ☐ Contribution =fixed cost+ profit **or** selling price- variable cost
- ☐ Contribution per unit= fixed cost per unit+ profit per unit **or**

- Contribution per unit = Selling price per unit – variable cost per unit
- Contribution margin ratio = $\frac{\text{contribution per unit}}{\text{Selling price per unit}}$
- Margin of Safety = excess of actual sales – BEP sales

- $\text{P/v Ratio} = \frac{\text{contribution}}{\text{Sales}}$

- $\text{BEP in units} = \frac{\text{fixed cost}}{\text{Contribution Margin of per unit}}$

Fixed cost

- $\text{BEP in sales} = \frac{\text{Fixed cost}}{\text{Contribution margin ratio}}$

Problems

Problem 1: Basic Break-Even Point (Units)

Data:

- Selling price per unit = ₹50
- Variable cost per unit = ₹30
- Fixed cost = ₹40,000

Solution:

1. $\text{Contribution per unit} = \text{SP} - \text{VC}$
 $= 50 - 30 = ₹20$

2. **Break-even point (units)**

$$\text{BEP (units)} = \frac{\text{Fixed Cost}}{\text{Contribution per unit}} = \frac{40,000}{20} = 2,000 \text{ units}$$

Break-even point = 2,000 units

Problem 2: Break-Even Point (Sales Value)

Data:

- Selling price per unit = ₹80
- Variable cost per unit = ₹50
- Fixed cost = ₹90,000

Solution:

1. Contribution per unit = $80 - 50 = ₹30$
2. P/V Ratio
3. Break-even sales

$$\text{BEP (sales)} = \frac{\text{Fixed Cost}}{\text{P/V Ratio}} = \frac{90,000}{0.375} = ₹2,40,000$$

Break-even sales = ₹2,40,000

Problem 3: Find Profit at a Given Sales Level**Data:**

- Fixed cost = ₹70,000
- P/V ratio = 40%
- Sales = ₹3,00,000

Solution:

1. Contribution = P/V ratio × sales
 $= 0.40 \times 3,00,000 = ₹1,20,000$
2. Profit = Contribution – Fixed cost
 $= 1,20,000 - 70,000 = ₹50,000$

Profit = ₹50,000

Problem 4: Margin of Safety**Data:**

- Break-even sales = ₹1,50,000
- Actual sales = ₹2,20,000

Solution:

$$\text{Margin of Safety} = \text{Actual Sales} - \text{BEP Sales}$$

$$= 2,20,000 - 1,50,000 = ₹70,000$$

Margin of safety = ₹70,000

Unit 3

National income

Estimation and projection of GDP in economics:

Estimation and projection of GDP are two related but distinct processes used in economics to understand how an economy is performing now and how it may perform in the future.

1. GDP Estimation

GDP estimation involves calculating the current or past value of a country's economic output. Governments and statistical agencies (e.g., national statistical offices, the World Bank, IMF) typically do this.

Methods of Estimating GDP

There are three standard approaches:

a) Production (Value Added) Approach

Adds up the value added at each stage of production across industries.

$$\text{GDP} = \sum (\text{Value of Output} - \text{Intermediate Consumption})$$

b) Expenditure Approach

Adds up all spending on final goods and services.

$$\text{GDP} = C + I + G + (X - M)$$

Where:

- **C** = Household consumption
- **I** = Investment
- **G** = Government expenditure
- **X – M** = Net exports (exports minus imports)

c) Income Approach

Adds up all incomes generated in the economy.

$$\text{GDP} = \text{Wages} + \text{Profits} + \text{Rents} + \text{Interest} + \text{Taxes} - \text{Subsidies}$$

Real vs. Nominal GDP

- **Nominal GDP:** Not adjusted for inflation
- **Real GDP:** Adjusted for inflation, reflects *actual purchasing power*
- **GDP Deflator:** Used to convert nominal to real GDP.

2. GDP Projection (Forecasting)

GDP projection involves predicting future economic performance. Economists use models, historical data, and assumptions to make these forecasts.

Common Methods of GDP Projection

a) Time-Series Models

Used when historical data is available.

- ARIMA models
- Exponential smoothing
- Vector autoregression (VAR)

These models look at past behaviour to forecast future GDP.

b) Econometric Models

Use economic theory + statistical data.

Examples:

$$\text{GDP} = \beta_0 + \beta_1(\text{Investment}) + \beta_2(\text{Consumption}) + \beta_3(\text{Government Spending})$$

These models can include dozens of variables.

c) Macroeconomic Structural Models

Large-scale models used by central banks and institutions.

Include variables like:

- Interest rates
- Employment
- Exchange rates
- Fiscal policy
- Productivity

d) CGE (Computable General Equilibrium) Models

Used for long-term projections and policy analysis.

e) Scenario Analysis

Economists develop alternative projections such as:

- Baseline scenario
- Optimistic scenario

- Pessimistic scenario

3. Factors Affecting GDP Projections

GDP forecasts depend on assumptions about:

- Consumer spending trends
- Investment climate
- Government fiscal policy
- Monetary policy (interest rates)
- Exchange rates
- Commodity prices
- Technological change
- Global economic conditions

Sudden shocks (e.g., pandemics, war, financial crises) can cause large forecast errors.

4. Uses of GDP Estimation and Projection Estimation is used for:

- Measuring economic health
- Comparing economies
- Making budget decisions
- Guiding monetary policy

Projections are used for:

- Planning government budgets
- Making business decisions
- Setting interest rates
- Predicting employment and inflation
- Long-term economic planning

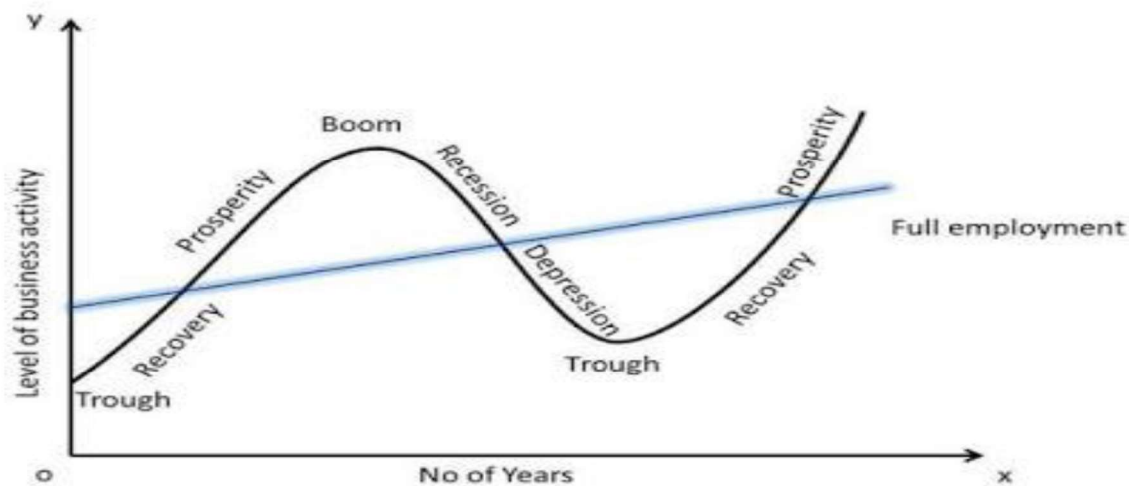
Business cycle:

Introduction

A study of fluctuations in business activity is called business cycle. Business cycle can be defined as a periodically recurring wave like movements in aggregate economic activity (like national income, employment, investment,

profits, prices) reflected in simultaneous, fluctuations in major macro-economic variables

Phases of business cycle



Peak: Peak economic phase represents the highest point of economic indicators like GDP, income, employment, investment, demand. During this time, prices reach their maximum and after this growth halts. The economy is said to have peaked out.

Recession: Recession is marked by a slowdown or contraction in economic activities like production, sales, income and employment. GDP, corporate profits and other indicators also fall during this time.

Depression: A severe and prolonged recession lasting three or more years, or with GDP falling by 10% or more in a year. It results in low business confidence, investments and consumer demand. The Great Depression of 1929 is an example of this period.

Trough: Trough is the lowest point in the cycle, where the economic activity bottoms out and marks the end of recession/depression and prepares ground for recovery.

Recovery: Recovery is a turnaround phase where the economy starts reviving and the GDP grows, income rises, employment increases and demand picks up. The prices remain relatively low and encourage production and consumption.

Expansion: Expansion marks the first stage of a new economic cycle and is marked by steady increase in output, income, employment and sales.

Boom: Boom represents the stage of prosperity and expansion and is characterised by high GDP growth, strong consumer demand, rising investments and increased commercial activity. The economy should already be recovering in order to enter this phase.

Firms response to business cycles:

Peak

- Economy is at its highest point
- Firms face rising costs (labour, raw materials)
- Become cautious about new investments
- Try to maintain efficiency since demand may level off

Recession

- Demand falls and sales drop
- Firms cut production
- Reduce staff or working hours
- Delay or cancel investments

Depression

- Very low demand and long-lasting downturn
- Firms may close branches or shut down completely
- Extreme cost-cutting
- Minimal or no investment; survival becomes the priority

Trough

- Lowest point; economy stabilizes but remains weak
- Firms operate at very low capacity
- Focus on maintaining essential operations
- Prepare for future improvement but remain cautious

Recovery

- Demand slowly increases
- Firms begin hiring again
- Restart delayed projects
- Increase production gradually

Expansion

- Strong and steady growth
- Firms increase production and sales

- Invest in new equipment, technology, and staff
- Marketing and innovation activities increase

Boom

- Demand is very high
- Firms increase output and operate near full capacity
- Hire more workers and raise prices
- Invest heavily in expansion

Characteristics of Business Cycles

The main characteristics or features of business cycles are as follows:

1. A business cycle is a wave like movement.
2. Business cycles operate periodically at fairly regular intervals of 10 to 12 years.
3. Business cycle is of an all-embracing nature, that is, it prevails in all industries, all occupations including agriculture and all areas in a country.
4. Expansion and contraction in a business cycle are cumulative in effect.
5. Business cycles are all-pervading in their impact.
6. A business cycle is characterized by downwards and upward movements.
7. In business cycles, cyclical fluctuations are recurrent in nature

INFLATION

The term 'inflation' is used in many senses and it is difficult to give a generally accepted, precise and scientific definition of the term. Popularly inflation refers to a rise in price-level or fall in the value of money. Kemmerer states that, "inflation is too much currency in relation to the physical volume of business being done"

- Inflation can be defined as a persistently increase in general price level or persistently decrease in the real value of money
- Inflation means things getting more expensive.
- Inflation is a situation of persistently raising the prices of goods.
- Inflation is also defined as a state persistently raising the supply of money.
- It also defined as the situation in which the volume of purchasing power is persistently more than the goods and services available to the consumers. Thus the price of goods will raise and the value of money falls.

Features of Inflation

1. Inflation is always accompanied by raise in price level.
2. It is the process of uninterrupted increase in prices.
3. Inflation is a monetary phenomenon and it is generally caused by excessive money supply.
4. Inflation is an economic phenomenon and is generally caused by increase in the income of the people in economy.
5. Inflation is a dynamic process as observed over the long period.
6. A cyclical movement of prices is not termed as inflation.
7. Pure inflation starts after full-employment
8. Inflation may be demand pull or cost push
9. Excess of demand in relation to supply is the essence for inflation.
10. Inflation may be monetary phenomenon or price phenomenon.

Types of inflation:

1. Basis of Coverage or scope:

- Comprehensive or Economy-Wide Inflation, and
- Sporadic Inflation.

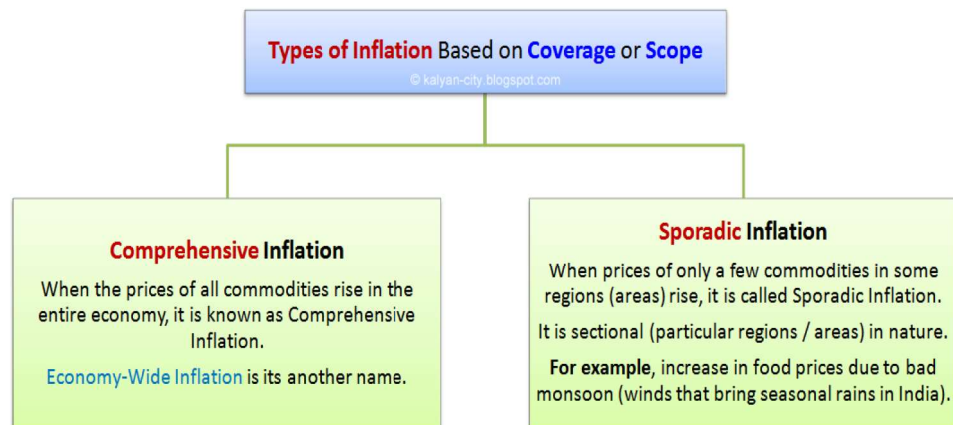
2. Basis of Time of occurrence:

- War-Time Inflation,
- Post-War Inflation, and
- Peace-Time Inflation.

3. Basis of inflation Rising:

- Creeping, Mild or Low Inflation,
- Walking or Trotting Inflation,
- Running Inflation,
- Galloping or Jumping Inflation

1.On the basis of coverage



2.On the basis of time of occurrence

War-Time Inflation:

Inflation that takes place during the period of a warlike situation is Wartime Inflation. During war, scant productive resources are all diverted and prioritized to manufacture military goods and equipments. overall it results in very limited supply and extreme shortage (low availability) of resources (raw materials) to produce essential commodities. Production and supply of needed goods slow down and can no longer meet the soaring demand from people. Consequently, prices of necessary goods keep on rising in the market, resulting in Wartime Inflation.

Post-War Inflation:

Inflation that takes place soon after a war is a Post-War Inflation. After the war, government controls are relaxed, resulting in a faster hike in prices than what experienced during the war.

Peace-Time Inflation:

When prices rise during the peace period, it is known as Peacetime Inflation. It is due to enormous government expenditure or spending on capital projects of a long gestation (development) time.

3.On the basis of rising prices:

Creeping Inflation: When prices are gently rising, it is referred as Creeping Inflation. It is the mildest form of inflation and also known as a Mild Inflation or Low Inflation. According to R.P. Kent, when prices rise by not more than (i.e. Up to) 3% per annum (year), it is called Creeping Inflation.

Walking Inflation: When the rate of rising prices is more than the Creeping Inflation, it is known as Walking Inflation. Trotting Inflation is its another name.

When prices rise by more than 3%, but less than 10% per annum (i.e., between 3%, and 10% per annum), it is called as Walking Inflation. According to some economists, we must take Walking Inflation seriously as it gives a cautionary signal for the occurrence of Running inflation. Furthermore, if, not checked in due time, it can eventually result in Galloping Inflation.

Running Inflation: A rapid acceleration in the rate of rising prices is called Running Inflation. It occurs when prices rise by more than 10% in a year. Though economists have not suggested a fixed range for measuring running inflation, we may consider a price increase between 10% to 20% per annum (double-digit inflation rate) as a Running Inflation.

Galloping Inflation: According to Prof. Samuelson, if prices rise by dual or triple digit inflation rates like 30% or 400% or 999% yearly, then the situation can be termed as Galloping Inflation. When prices rise by more than 20%, but less than 1000% per annum (i.e. Between 20% to 1000% per annum), Galloping Inflation occurs. Jumping Inflation is its another name. India has been witnessing it from second five-year plan period.

Causes/Effects of inflation:

The causes of inflation may be grouped under two headings:

(1)Demand-pull Inflation:

The inflation represents a situation whereby “The pressure of aggregate demand for goods and services exceeds the available supply of output.” In such situation, the rise in price level is the natural consequence.

Now this excess of aggregate demand over supply may be the result of more than one force at work. As we know, aggregate demand is the sum of consumer’s spending on current goods and services and net investment being contemplated by the entrepreneurs.

At times, however, the government, the entrepreneurs or the households may attempt to secure a larger part of output than would thus accrue to them. Inflation is thus caused when aggregate demand for all purposes-consumption, investment and government expenditure exceeds the supply of goods at current prices. This is called demand-pull inflation.

Causes for demand pull inflation

1. Increase in money supply:
2. Increase in disposal income
3. Increasing in aggregate spending
4. Increase in the population of the country

(2) Cost-Push Inflation:

Even though there is no increase in aggregate demand, prices may still rise. This may happen if costs, particularly the wage costs, go on rising. Now as the level of employment rises, the demand for workers also rises, so that the bargaining position of the workers becomes stronger.

To exploit this situation, they may ask for an increase in wage rates which are not justifiable on grounds either of a prior rise of productivity or of cost of living. The employers in a situation of high demand and employment are more agreeable to concede these wage claims, because they hope to pass on this rise in cost to the consumers in the shape of rise in prices. If this happens, we have another inflationary factor at work and the inflation thus caused is called the wage-induced or cost-push inflation.

Causes for Cost Push Inflation:

1. Obsolete technology
2. Deficient machinery
3. Scarcity of resources
4. Natural calamities
5. Industrial disputes

Anti-inflationary measures

Inflation should be controlled in the beginning stage, otherwise it will take the shape of hyper-inflation which will completely run the country. The different methods used to control inflation are known as **anti-inflationary measures**. These measures attempt mainly at reducing aggregate demand for goods and services on the basic assumption that inflationary rise in prices is due to an excess of demand over a given supply of goods and services.

Anti-inflationary measures are of four types:

1. Monetary policy
2. Fiscal policy
3. Price control

1.monitory policy: Monetary policy is the process by which a country's central bank (in India, the Reserve Bank of India – RBI) manages the money supply and credit in the economy to achieve specific economic goals such as controlling inflation, ensuring price stability, promoting economic growth, and maintaining employment.

2. Fiscal Policy

It is the policy of a government with regard to taxation, expenditure and public borrowing. It has a very important influence on business and economic activity. Taxes determine the size or the volume of disposable income in the hands of the public. The proper tax policy to control inflation will avoid tax cuts, introduce new taxes and raise the rates of existing taxes.

As an **anti-inflationary measure**, government expenditure should be reduced. This indicates that demand for goods and services will be further reduced. This policy of increasing public revenue through taxation and decreasing public expenditure is known as surplus budgeting. However, there is one important difficulty in this policy.

It may be easy to increase revenue in times of inflation when people have more money income, but difficult to reduce public expenditure. During war times as well as during a period of development, it is absolutely impossible to reduce the planned expenditure. If the government has already taken up a scheme or a group of schemes, it is ruinous to give them up in the middle. Therefore, public expenditure cannot be used as an **anti-inflationary measure**. Lastly, public debt, i.e., the debt of the government may be managed in such a way that the supply of money in the country may be controlled.

The government should avoid paying back any of its previous loans during inflation so as to prevent an increase in the circulation of money. Moreover, if the government manages to get a surplus budget, it should be used to cancel public debt held by the central bank. The result will be anti-inflationary since money taken from the public and commercial banks is being cancelled out and is removed from circulation. But the problem is how to get a budget surplus, which is extremely difficult.

3. Price Control

This is the most important and effective method available during war and other critical times particularly because both monetary and fiscal policies are more or less useless during this period. Price control implies the establishment of legal upper limits beyond which prices of particular goods should not rise. The purpose of rationing, on the other hand, is to distribute the goods in short supply in an equitable manner among all people, irrespective of their wealth and social status. Price control and rationing generally go together. The chief objection behind use of this method to fight inflation is that they restrict the freedom of the consumers and thus limit their welfare. Besides, its success depends on administrative efficiency, which in many underdeveloped countries is very low.

Economic Policy of the Government of India

The economic policy of India refers to the actions and strategies taken by the government to manage the economy, promote growth, maintain stability, and improve the welfare of citizens. It includes fiscal policy, monetary policy, industrial policy, trade policy, agricultural policy, and social welfare measures.

1. Fiscal Policy

- Managed by the **Ministry of Finance**
- Involves **government spending** and **taxation**
- Objectives: economic growth, reducing inequality, controlling inflation, employment generation
- Tools: income tax, GST, subsidies, public expenditure, budget deficit management

2. Monetary Policy

- Controlled by the **Reserve Bank of India (RBI)**
- Manages money supply and interest rates
- Objectives: control inflation, ensure price stability, support economic growth
- Tools: repo rate, bank rate, CRR, SLR, open market operations

3. Industrial Policy

- Aims to promote industrial growth and modernization
- Encourages private sector, FDI (Foreign Direct Investment), MSMEs
- Focus on Make in India, Start-up India, PLI (Production-Linked Incentive) schemes

4. Trade Policy

- Regulates imports and exports
- Aims to promote foreign trade, reduce trade barriers, and integrate India into global markets
- Use of tariffs, export incentives, trade agreements

5. Agricultural Policy

- Ensures food security and rural development
- Includes MSP (Minimum Support Price), irrigation programs, crop insurance, rural credit, technology adoption

6. Foreign Investment Policy

- Encourages inflow of FDI and FPI
- Liberalized rules for sectors like telecom, manufacturing, retail, and infrastructure

7. Social Welfare and Inclusive Growth Policies

- Reduce poverty, unemployment, and inequality
- Schemes: MGNREGA, PM-KISAN, Food Security Act, Ayushman Bharat, housing for all, education programs

Objectives of India's Economic Policy

- Sustainable economic growth
- Price stability
- Reduction of poverty and inequality
- Employment generation
- Balanced regional development
- Improvement in standard of living

Unit 4

INTRODUCTION

Every person performs some kind of economic activity. A worker daily works and get wages and he spends to buy goods, cloths and some part of earnings saves for future. A business man purchases goods and sales it and incurred various expenses like salaries, rent etc. A partner in firm contributes towards capital in the firm which carries on business may be trading in goods.

Governments are also carries on some financial activities. All are carrying some kind of economic activities. Such economic activities are performed through transactions and / or events. Thus the business transactions include purchase, sale of goods, rendering various services, receipts and payments for such transactions. In a business concerns the transactions are numerous. The details of all transactions cannot be remembered by the business man. Therefore it is necessary to keep written records of all such transactions. The records of written transaction will help business to settle disputes and also possible to provide valuable information to the owner of business.

“Accounting is as old as money itself”. Since in early ages all commercial activities were based on **barter system only**, recording keeping was not a necessity. The **Industrial Revolution of 19th century** along with rapid rise in population, paved way for the development of commercial activities, mass production and credit terms. Thus recording of business transaction has become an important feature. In recent years with the change of technologies and marketing along with stiff competition, accounting system has undergone remarkable changes.

MEANING OF ACCOUNTING

Accounting, as an information system is the process of **identifying, measuring and communicating the economic information of an organization to its users** who need the information for decision making. It identifies transactions and events of a specific entity. A transaction is **an exchange in which each** participant receives or sacrifices value (e.g. purchase of raw material). An event i.e. results from the transactions (whether internal or external) is a happening of consequence to an entity (e.g. use of raw material for production). An entity means an economic unit that performs economic activities

DEFINITION

Accounting as —the process of **identifying, measuring and communicating** economic information to permit informed judgments and decision by users of the information.

American Accounting Association (AAA)

Accounting as —the art of **recording, classifying, summarizing in a significant manner** and in terms of **money transactions** and events, which are, in part at least, of a financial character and **interpreting** the results there off.

American Institute of Certified Public Accountants (AICPA)

KEY SUMMARY OF DEFINITION

- (1) **Recording:** Recording all the transactions in journal/subsidiary books for purpose of future record or reference. It is referred to as "Journal."
- (2) **Classifying:** All recorded transactions in subsidiary books are classified and posted to the main book of accounts. It is known as "Ledger."
- (3) **Summarizing:** All recorded transactions in main books will be summarized for the preparation of Trail Balance, Profit and Loss Account and Balance Sheet.
- (4) **Interpreting:** Interpreting refers to the explanation of the meaning and significance of the result of final accounts and balance sheet so that parties concerned with business can determine the future earnings, ability to pay interest, liquidity and profitability of a sound dividend policy.

FINANCIAL ACCOUNTING AND MANAGEMENT ACCOUNTING

Accounting information can be classified broadly between financial accounting and management accounting.

Financial accounting is the day-to-day recording of an organization's financial transactions and the summarizing of those transactions to satisfy the information needs of the user groups. It is sometimes referred to as meeting the *external* accounting needs of the organization, and as such is subject to many rules and regulations (a **regulatory framework**) imposed by company legislation and accounting standards.

Management accounting is sometimes referred to as meeting the *internal* accounting needs of the organization, as it is designed to help managers with decision making and planning. As such it often involves estimates and forecasts, and is not subject to the same regulatory framework as financial accounting.

NEED AND IMPORTANCE OF ACCOUNTING

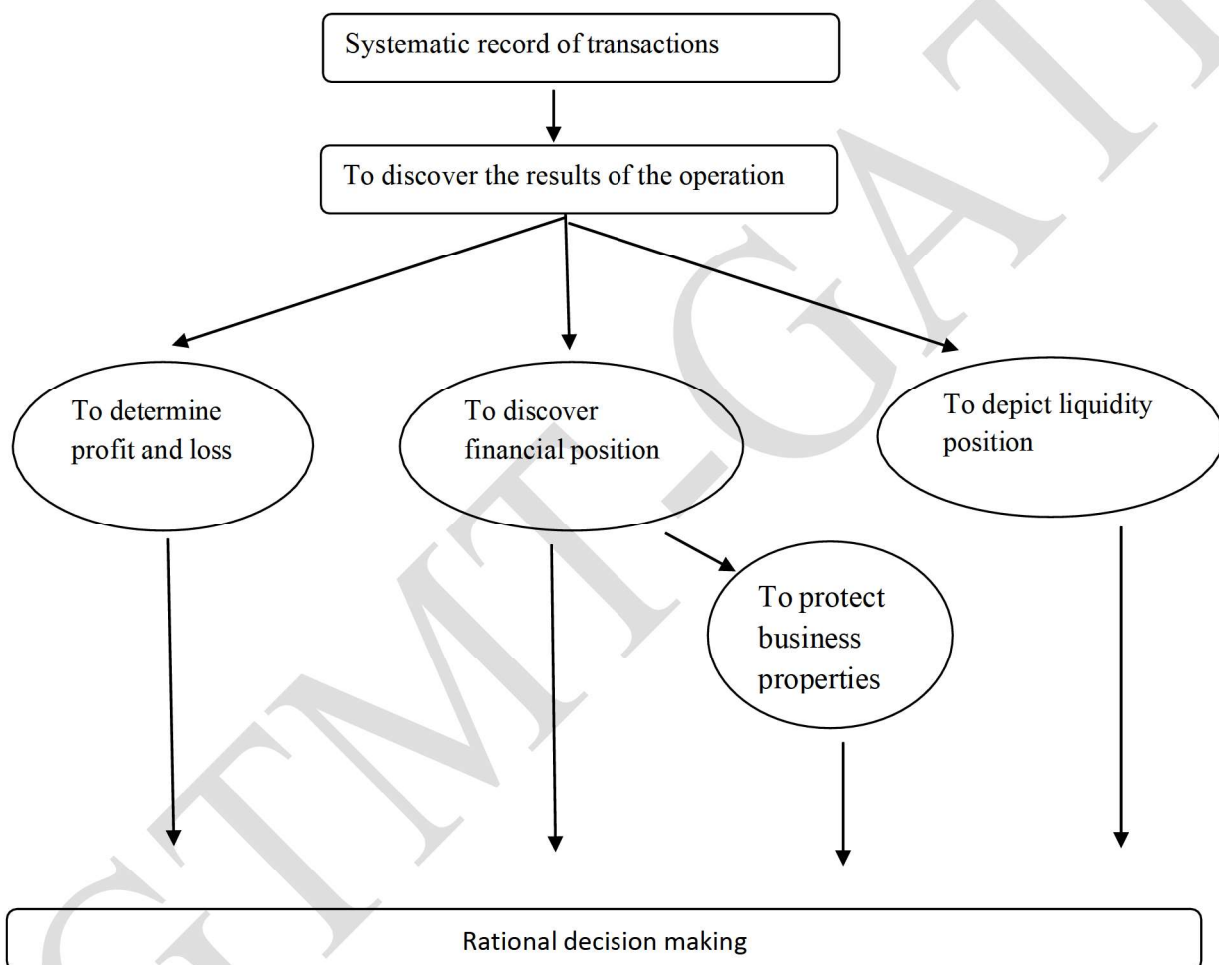
When a person starts a business or firm, whether large or small, his main aim is to earn profit. He receives money from definite sources like sale of goods, interest on bank deposits etc. He has to spend money on certain items like purchase of goods, salary, rent, etc. These activities take place during the normal course of his business. He would naturally be anxious at the year end, to know the progress of his business. **Business transactions are numerous, that it is not possible to recall his memory as to how the money had been earned and spent.** At the same time, if he had noted down his incomes and expenditures, he can readily get the required information. Hence, the details of the business transactions have to be recorded in a clear and systematic manner to get answers easily and accurately for the following questions at any time he likes.

- i. What has happened to his investment?
- ii. What is the result of the business transactions?
- iii. What are the earnings and expenses?
- iv. How much amount is receivable from customers to whom goods have been sold on credit?
- v. How much amount is payable to suppliers on account of credit purchases?
- vi. What are the nature and value of assets possessed by the business concern?
- vii. What are the nature and value of liabilities of the business concern?

These and several other questions are answered with the help of accounting. The need for recording business transactions in a clear and systematic manner is the basis which gives rise to Book-keeping.

OBJECTIVE OF ACCOUNTING

Objective of accounting may differ from business to business depending upon their specific requirements. However, the following are the general objectives of accounting.

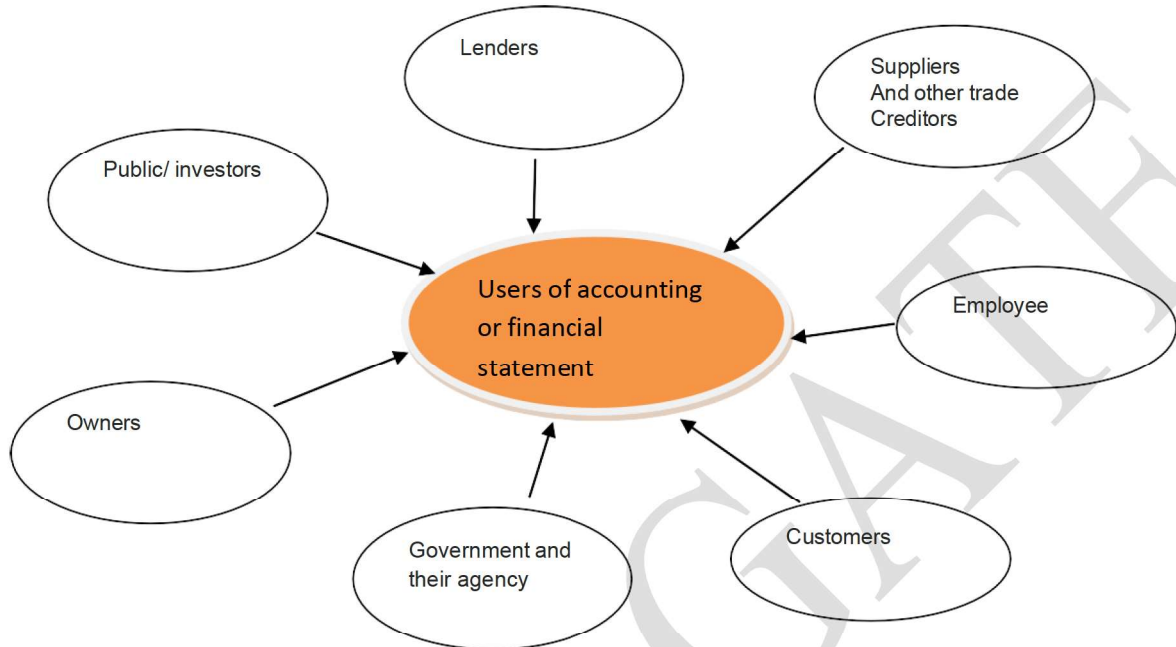


To keeping systematic record	It is very difficult to remember all the business transactions that take place. Accounting serves this purpose of record keeping by promptly recording all the business transactions in the books of account.
To ascertain the results of the operation	Accounting helps in ascertaining result i.e., profit earned or loss suffered in business during a particular Period . For this purpose, a business entity prepares either a Trading and Profit and Loss account or an Income and Expenditure account which shows the profit or loss of the business by matching the items of revenue and expenditure of the same period.
To ascertain the financial position of the business	In addition to profit, a businessman must know his financial position i.e., availability of cash, position of assets and liabilities etc. This helps the businessman to know his financial strength. Financial statements are barometers of health of a business entity.
To depict the liquidity position:	Financial reporting should provide information about how an enterprise obtains and spends cash, about its borrowing and repayment of borrowing , about its capital transactions, cash dividends and other distributions of resources by the enterprise to owners and about other factors that may affect an enterprise's liquidity and solvency.
To protect business properties	Accounting provides up to date information about the various assets that the firm possesses and the liabilities the firm owes , so that nobody can claim a payment which is not due to him.
To facilitate rational decision – making	Accounting records and financial statements provide financial information which help the business in making Rational decisions about the steps to be taken in respect of various aspects of business.

1.4 USES OF ACCOUNTING or IMPORTANTS OF ACCOUNTING

In 2001 the IASB adopted a Framework for the Preparation and Presentation of Financial Statements which set out certain concepts that underlie the preparation and

presentation of financial Statements. The Framework identifies the following seven groups of users together with the information which they need from the financial statements:



USERS GROUP	INFORMATION NEEDS
Owners	The owners provide funds or capital for the organization. They possess curiosity in knowing whether the business is being conducted on sound lines or not and whether the capital is being employed properly or not. Owners, being businessmen, always keep an eye on the returns from the investment. Comparing the accounts of various years helps in getting good pieces of information.
Employees:	Payment of bonus depends upon the size of profit earned by the firm . The more important point is that the workers expect regular income for the bread. The demand for wage rise, bonus, better working conditions etc. depend upon the profitability of the firm and in turn depends upon financial position.
Investors:	The prospective investors who want to invest their money in a firm of course wish to see the progress and prosperity of the firm, before investing their amount , by going through the financial statements of the firm. This is to safeguard the investment
Government	Government keeps a close watch on the firms which yield good amount of profits. The state and central Governments are interested in the financial statements to know the earnings for

the purpose of taxation. To compile national accounting is essential

Consumers	These groups are interested in getting the goods at reduced price. Therefore, they wish to know the establishment of a proper accounting control, which in turn will reduce to cost of production, in turn fewer prices to be paid by the customers. Researchers are also interested in accounting for interpretation.
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Creditors	Profit and Loss Account and Balance Sheet are nerve centers to know the soundness of the firm. Creditors are the persons who supply goods on credit, or bankers or lenders of money. It is usual that these groups are interested to know the financial soundness before granting credit.
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Management:	The management of the business is greatly interested in knowing the position of the firm. The accounts are the basis, the management can study the merits and demerits of the business activity. The financial accounting is the “eyes and ears of management and facilitates in drawing future course of action, further expansion etc.”
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1.5 BOOK KEEPING

Every day business transactions may be around hundreds/thousands. Can a businessman remember all these transactions in every respect? Not at all. So it becomes necessary to record these business transactions in details and in a systematic manner. **Recording of business transactions in a systematic manner in the books of account is called book-keeping.** Book-Keeping is concerned with recording of financial data. It is important to note that only those transactions related to business which can be expressed in terms of money are recorded. The activities of book-keeping include recording in the journal, posting to the ledger and balancing of accounts.

DEFINITION

“Book-keeping is the science and art of correctly recording in the books of account all those business transactions that result in the transfer of money or money's worth”.

R.N. Carter

—The art of keeping a permanent record of business transactions is book keeping.

A.H.Rosenkamph.

OBJECTIVES

- i. to have permanent record of all the business transactions.
- ii. To keep records of income and expenses in such a way that the net profit or net loss may be calculated.
- iii. To keep records of assets and liabilities in such a way that the financial position of the business may be ascertained.
- iv. To keep control on expenses with a view to minimize the same in order to maximize profit.
- v. To know the names of the customers and the amount due from them.
- vi. To know the names of suppliers and the amount due to them.
- vii. To have important information for legal and tax purposes.

1.6 BOOK KEEPING VS ACCOUNTING

BASIS OF DISTINCTION	BOOK-KEEPING	ACCOUNTING
Nature	It is concerned with identifying financial transactions, measuring them in monetary terms; recording and classifying them.	It is concerned with summarizing the recorded transactions, interpreting them and communicating the results.
Scope	Recording and maintenance of books of accounts.	It is not only recording and maintenance of books of accounts but also includes analysis, interpreting and communicating the information.
Responsibility	A book-keeper is responsible for recording business transactions.	An accountant is also responsible for the work of a book-keeper.
Objective	It is to maintain systematic records of financial transactions	It aims at ascertaining business income and financial position by maintaining records of business transactions
Function	It is to record business transactions . So its scope is limited.	It is the recording, classifying, summarizing, interpreting business transactions and communicating the results. Thus its scope is quite wide.
Stage	Primary stage.	Secondary stage.
Basis	Vouchers and other supporting documents are necessary as evidence to record the business transactions.	Book-keeping works as the basis for accounting information
Level of knowledge	It is enough to have elementary Knowledge of accounting to do book keeping.	For accounting, advanced and in-depth knowledge and understanding is required.
Relation	Book-keeping is the first step to accounting.	Accounting begins where bookkeeping ends
Staff involved	Work is done by the junior involved staff of the organization.	Senior staff performs the accounting work.

ACCOUNTANCY, ACCOUNTING AND BOOK-KEEPING

Accountancy refers to a systematic knowledge of accounting. It explains “**why to do**” and “**how to do**” of various aspects of accounting. It tells us why and how to prepare the books of accounts and how to summarize the accounting information and communicate it to the interested parties.



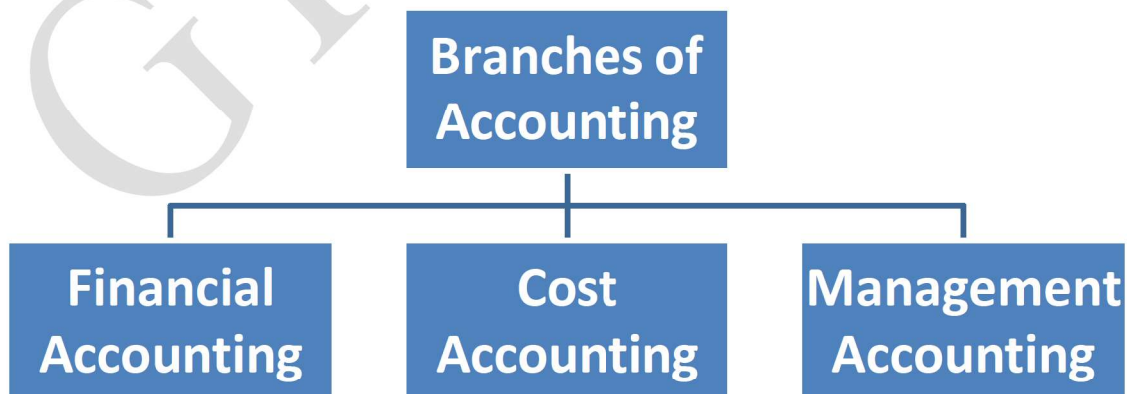
Accounting refers to the actual process of preparing and presenting the accounts. In other words, it is the **art of putting the academic knowledge of accountancy into practice**

Book-keeping is a part of accounting and is concerned with record keeping or maintenance of books of accounts. It is often **routine and clerical in nature**.

Book-keeping provides the basis for accounting and it is complementary to accounting process. Accounting begins where book-keeping ends. Accountancy includes accounting and book-keeping. The terms Accounting and Accountancy are used synonymously.

BRANCHES OF ACCOUNTING

Increased scale of business operations has made the management function more complex. This has given rise to specialized branches in accounting. The main branches of accounting are Financial Accounting, Cost Accounting and Management Accounting.



Financial Accounting

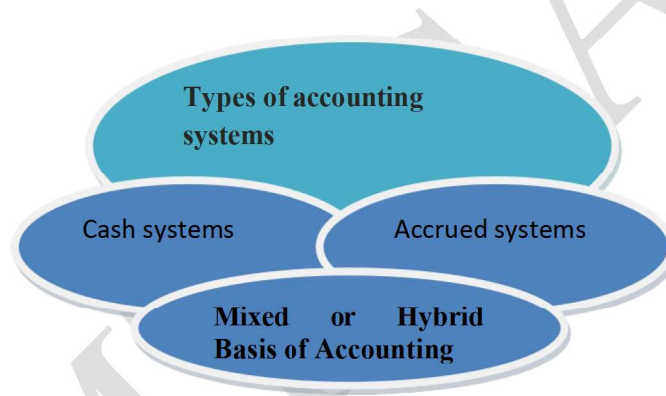
It is concerned with recording of business transactions in the books of accounts in such a way that operating result of a particular period and financial position on a particular date can be known.

Cost Accounting

It relates to collection, classification and ascertainment of the cost of production or job undertaken by the firm.

Management Accounting

It relates to the use of accounting data collected with the help of financial accounting and cost accounting for the purpose of policy formulation, planning, control and decision making by the management.

1.7 ACCOUNTING SYSTEMS**Cash system of accounting:**

It is a system in which accounting entries are made only when cash is received or paid. No entry is made when a payment or receipt is merely due. Government system of accounting is mostly on the cash systems.

Accrued system mercantile system of accounting

It is a system in which accounting entries are made on the basis of amount become due for payment or receipts. These systems recognize the facts that if a transaction or event has occurred.

Mixed or Hybrid Basis of Accounting

When certain items of revenue or expenditure are recorded in the books of account on cash basis and certain items on mercantile basis, the basis of accounting so employed is called 'hybrid basis of accounting'. For example, a company may follow mercantile system of accounting in respect of its export business. However, government subsidies and duty drawbacks on exports to be received from government are recorded only when they are actually received.

1.7 ACCOUNTING SYSTEMS



1.7.1 SINGLE ENTRY:

It is incomplete system of recording business transactions. The business organization maintains only cash book and personal accounts of debtors and creditors. So the complete recording of transactions cannot be made and trail balance cannot be prepared.

1.7.2 DOUBLE ENTRY SYSTEM:

There are numerous transactions in a business concern. Each transaction, when closely analyzed, reveals two aspects. One aspect will be —receiving aspect or —incoming aspect or —expenses/loss aspect. This is termed as the —Debit aspect. The other aspect will be —giving aspect or —outgoing aspect or —income/gain aspect. This is termed as the —Credit aspect. These two aspects namely —Debit aspect and —Credit aspect forms the basis of Double Entry System.

The double entry system is so named since it records both the aspects of a transaction. In short, the basic principle of this system is, for every debit, there must be a corresponding credit of equal amount and for every credit, there must be a corresponding debit of equal amount.

FEATURES

- i. Every business transaction affects two accounts.
- ii. Each transaction has two aspects, i.e., debit and credit.
- iii. It is based upon accounting assumptions concepts and principles.
- iv. Helps in preparing trial balance which is a test of arithmetical accuracy in accounting.
- v. Preparation of final accounts with the help of trial balance.

MEANING OF DEBIT AND CREDIT:

The term ‘debit’ is supposed to have derived from ‘debit’ and the term ‘credit’ from ‘creditable’. For convenience ‘Dr’ is used for debit and ‘Cr’ is used for credit. Recording of transactions require a thorough understanding of the rules of debit and credit relating to accounts. Both debit and credit may represent either increase or decrease, depending upon the nature of account.

1.7.3 SINGLE ENTRY SYSTEM vs. DOUBLE ENTRY SYSTEM:

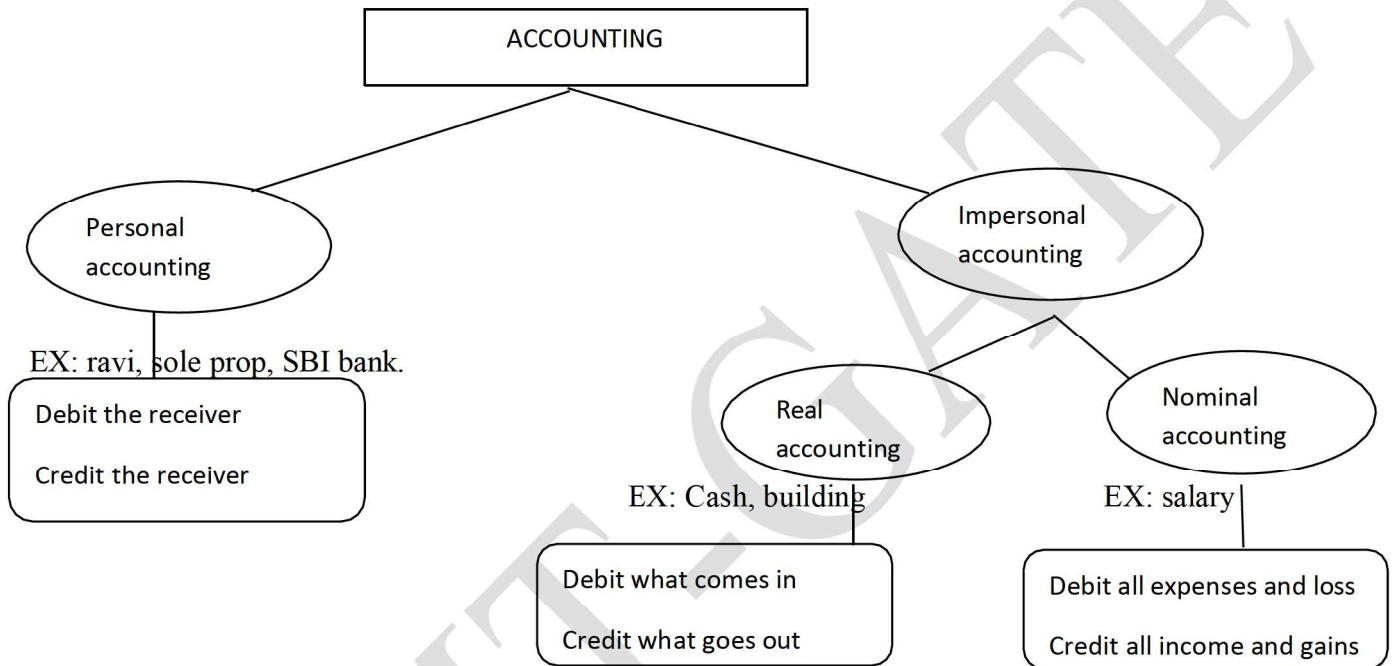
Nature	Single Entry system	Double Entry system
Meaning	Single entry system is an incomplete system of recording financial transactions	Double entry system is a complete system of recording and reporting financial transactions
Accounts	Single entry system maintains only personal accounts of debtors and creditors and cash book.	Double entry system all personal, real and nominal accounts.
Trial Balance	Single entry system cannot prepare a trial balance and hence, arithmetical accuracy of books of accounts cannot be checked.	Double entry system prepares trial balance and hence, arithmetical accuracy of the books of accounts can be checked.
Profit Or Loss	Single entry system cannot ascertain the true amount of profit or loss of the business as it does not maintain nominal accounts.	Double entry system ascertains true profit or loss of the business as it maintains all nominal accounts.
Financial Position	Single entry system cannot ascertain the true financial position of the business because it does not maintain real accounts except cash book.	Double entry system ascertains financial position of the business as it maintains all personal and real accounting
Suitability	Single entry system is suitable to a small business where only limited number of transactions are performed.	Double entry system is suitable for a large business.
Tax Purpose	Single entry system is not acceptable for the purpose of assessment of tax	Double entry system is acceptable for the purpose of assessment of tax.

1.8 TYPES OF ACCOUNTS

The transactions are recorded in the books under a unique account. Each account is assigned a separate name to distinguish it from other accounts. While making an entry in the books, first we should see, to which category of accounts it belongs. There are mainly three types of accounts.

- (i) Transactions relating to persons.
- (ii) Transactions relating to properties and assets
- (iii) Transactions relating to incomes and expenses.

The accounts falling under the first heading are known as „**personal Accounts**“. The accounts falling under the second heading are known as „**Real Accounts**“, the accounts falling under the third heading are called „**Nominal Accounts**“. The accounts can also be classified as personal and impersonal. The following chart will show the various types of accounts



1. Personal Accounts.

Accounts related to **persons (living or non-living)** are called personal accounts. In business we have to deal with a number of persons. Some are living like us and some are artificial which do not have a living existence but have a separate legal existence. Thus in accountancy we classify persons into

Natural Persons

Artificial Person.

Natural persons are the persons **who are living e.g. Rahul, Mohan, Sam, Peter etc.**

Artificial persons are **all the firms, companies, institutions with whom you deal.** In accounts business is a separate legal entity which has an existence of its own. Similarly the other companies, firm or organizations are regarded as separate legal entities. These are regarded as artificial persons... Examples of artificial persons are ABC Ltd, Wipro Ltd, Hindustan Lever, X and Co, Ahuja & sons etc.

Debit the Receiver
Credit the Giver

2. Real Accounts

Accounts **related to assets** (tangible or intangible) come under the category of real accounts e.g. land, furniture, machinery, goodwill, patents etc. are real accounts. Some of the assets of the business are such which you can touch, see and feel. **Tangible assets have physical existence.** e.g. cash, inventories, debtors, securities, land, building, machinery, furniture, equipment's, vehicles etc. assets which can be seen, touched and felt. These assets are called tangible assets.

In business it's not necessary that all assets must have a physical existence. Some assets are such **which cannot be touched, seen or felt but still they have an economic value.** The example of such assets are Goodwill, patents, trademarks, brand value, human intelligence. These assets are called **intangible assets.** These assets just like tangible assets can be sold and bought in the market and these appear on the balance sheet of the company together with other assets.

Debit what comes in Credit what goes out

3. Nominal Accounts

These are the accounts **related to incomes and expenditures of a business entity.** Expenditure or expenses are **the amount paid or payable which has given its benefit to the business in the fiscal year.** e.g. Salaries, wages, carriage, transportation, rent, electricity, stationary, taxes, commissions paid, interest paid etc. Incomes are the **receipts which increase the profits of the business.** Examples of incomes are rent received, commission received, interest received, dividend received etc.

Debit all the expenses and losses Credit all incomes and gains

FUNCTIONS OF ACCOUNTING

A. Record Keeping Function:

The primary function of accounting relates to recording, classification and summary of financial transactions-journalism, posting, and preparation of final statements. These facilitate to know operating results and financial positions. The purpose of this function is to report regularly to the interested parties by means of financial statements. Thus accounting performs historical function i.e., attention on the past performance of a business; and this facilitates decision making programmed for future activities.

B. Managerial Function:

Decision making programmed is greatly assisted by accounting. The managerial function and decision making programmers, without accounting, may mislead...

C. Legal Requirement function:

Auditing is compulsory in case of registered firms. Auditing is not possible without accounting. Thus accounting becomes compulsory to comply with legal requirements. Accounting is a base and with its help various returns, documents, statements etc., are prepared.

D. Language of Business:

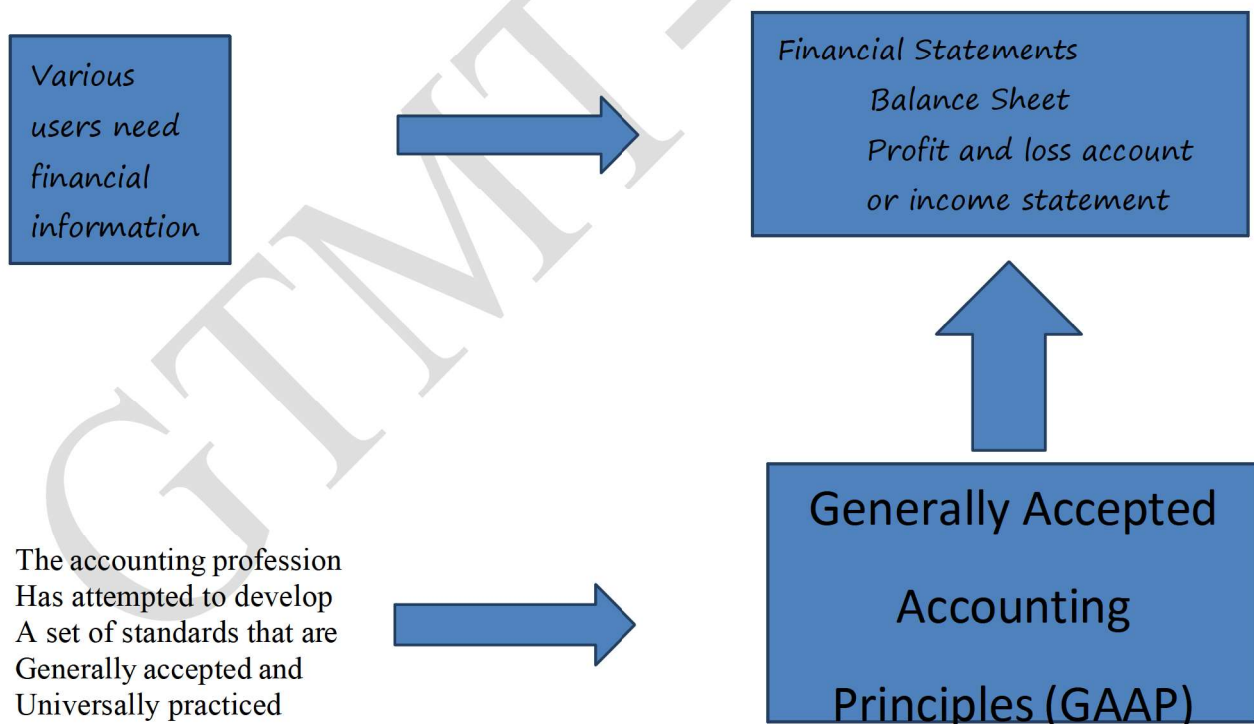
Accounting is the language of business. Various transactions are communicated through accounting. There are many parties-owners, creditors, government, employees etc., who are interested in knowing the results of the firm and this can be communicated only through accounting. The accounting shows a real and true position of the firm or the business.

GENERALLY ACCEPTED ACCOUNTING PRINCIPLES

A set of rules and practices, having substantial authoritative support that the accounting profession recognizes as a general guide for financial reporting purposes.

Standard-setting bodies:

- ▶ Securities and Exchange Commission (SEC)
- ▶ Financial Accounting Standards Board (FASB)
- ▶ International Accounting Standards Board (IASB)



MEANING ACCOUNTING CONCEPT

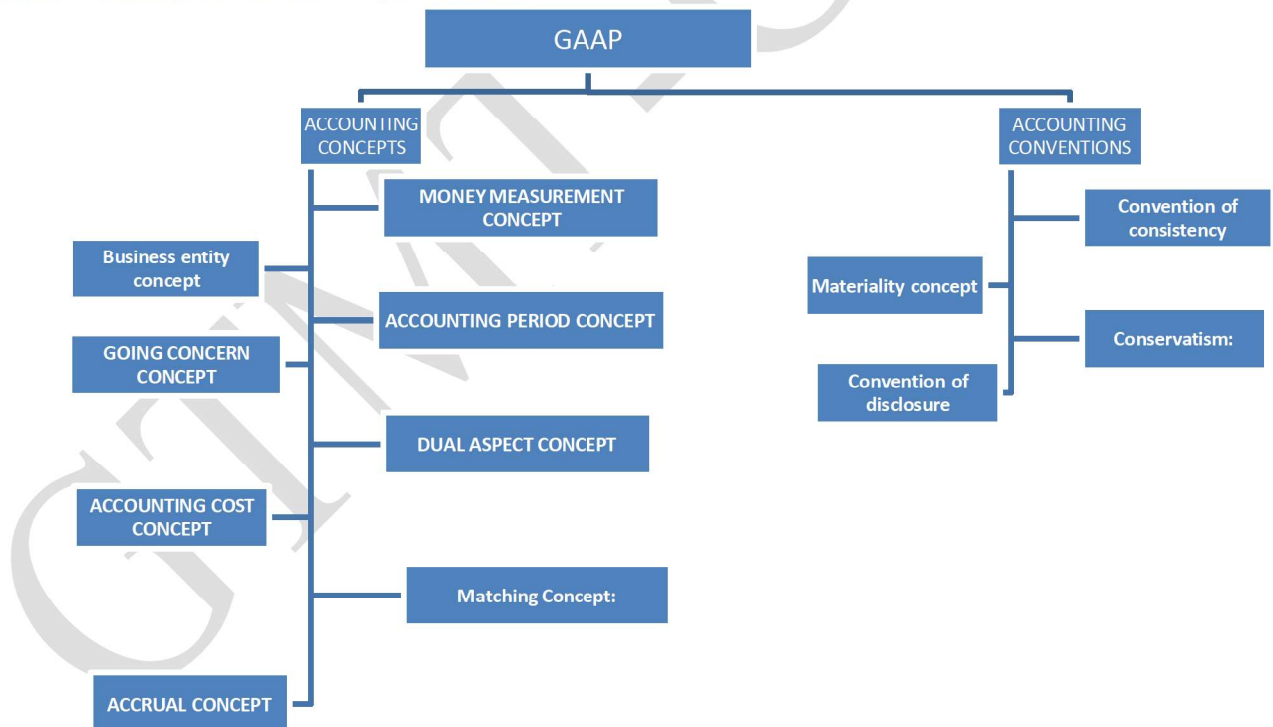
Let us take an example. In India there is a basic rule to be followed by everyone that one should walk or drive on his/her left hand side of the road. It helps in the smooth flow of traffic. Similarly, there are certain rules that an accountant should follow while recording business transactions and preparing accounts. These may be termed as accounting concept.

Accounting concept refers to the basic assumptions and rules and principles which work as the basis of recording of business transactions and preparing accounts.

1. BUSINESS ENTITY CONCEPT

This concept assumes that, for accounting purposes, the business enterprise and its owners are two separate independent entities. Thus, the business and personal transactions of its owner are separate. For example, when the owner invests money in the business, it is recorded as liability of the business to the owner. Similarly, when the owner takes away from the business cash/goods for his/her personal use, it is not treated as business expense. Thus, the accounting records are made in the books of accounts from the point of view of the business unit and not the person owning the Business. This concept is the very basis of accounting.

Let us take an example. Suppose Mr. Sahoo started business investing Rs100000. He purchased goods for Rs40000, Furniture for Rs20000 and plant and machinery of Rs30000. Rs10000 remains in hand. These are the assets of the business and not of the owner. According to the business entity concept Rs100000 will be treated by business as capital i.e. a liability of business towards the owner of the business.



Now suppose, he takes away Rs5000 cash or goods worth Rs5000 for his domestic purposes. This withdrawal of cash/goods by the owner from the business is his private expense and not an expense of the business. It is termed as Drawings. Thus, the business entity concept states that business and the owner are two separate/distinct persons. Accordingly, any expenses incurred by owner for he or his family from business will be considered as expenses and it will be shown as drawings.

2. MONEY MEASUREMENT CONCEPT

This concept assumes that all business transactions must be in terms of money that is in the currency of a country. In our country such transactions are in terms of rupees. Thus, as per the money measurement concept, transactions which can be expressed in terms of money are recorded in the books of accounts. For example, sincerity, loyalty, honesty of employees are not recorded in books of accounts because these cannot be measured in terms of money although they do affect the profits and losses of the business concern.

For example,

At the end of the year 2006, an organization may have

	physical units	monetary unit
land	10 acres	12 core
office building containing	50 rooms,	10 core
personal computers	50	10 lakhs
office chairs and tables	50	2 lakhs
raw materials	100 k.g	Rs.30 lakhs

Therefore, the transactions which can be expressed in terms of money are recorded in the accounts books, that too in terms of money and not in terms of the quantity.

3. GOING CONCERN CONCEPT

This concept states that a business firm will continue to carry on its activities for an indefinite period of time. Simply stated, it means that every business entity has continuity of life. Thus, it will not be dissolved in the near future. This is an important assumption of accounting, as it provides a basis for Showing the value of assets in the balance sheet. For example, a company purchases a plant and machinery of Rs.100000 and its life span is 10 years.

According to this concept every year some amount will be shown as expenses and the balance amount as an asset.

4. ACCOUNTING PERIOD CONCEPT

Under this concept, the life of the business is segmented into different periods and accordingly the result of each period is ascertained. Though the business is assumed to be continuing in future (as per going concern concept), the measurement of income and studying the financial position of the business for a shorter and definite period will help in taking corrective steps at the appropriate time. Each segmented period is called —accounting period and the same is normally a year.

Ex: Year that begins from 1st of January and ends on 31st of December, is known as Calendar Year. The year that begins from 1st of April and ends on 31st of March of the following year, is known as financial Year.

5. ACCOUNTING COST CONCEPT

Accounting cost concept states that all assets are recorded in the books of accounts at their purchase price, which includes cost of acquisition, transportation and installation and not at its market price. It means that fixed assets like building, plant and machinery, furniture, etc. are recorded in the

Books of accounts at a price paid for them.

For example, a machine was purchased by XYZ Limited for Rs.500000, for manufacturing shoes. An

Amount of Rs.1, 000 were spent on transporting the machine to the factory site. In addition, Rs.2000 were spent on its installation. The total amount at which the machine will be recorded in the books of accounts would be the sum of all these items i.e. Rs.503000. This cost is also known as historical cost.

6. DUAL ASPECT CONCEPT

Dual aspect is the foundation or basic principle of accounting. It provides the very basis of recording business transactions in the books of accounts. This concept assumes that every transaction has a dual effect, i.e. it affects two accounts in their respective opposite sides. Therefore, the transaction should be recorded at two places. It means, both the aspects of the transaction must be recorded in the books of accounts. For example, goods purchased for cash has two aspects which are (i) Giving of cash (ii) Receiving of goods. These two aspects are to be recorded. Thus, the duality concept is commonly expressed in terms of fundamental accounting equation:

$$\text{Assets} = \text{Liabilities} + \text{Capital}$$

The above accounting equation states that the assets of a business are always equal to the claims of owner/owners and the outsiders. This claim is also termed as capital or owners' equity and that of outsiders, as liabilities or creditors' equity.

7. MATCHING CONCEPT:

The essence of the matching concept lies in the view\ that all costs which are associated to a particular period should be compared with therevenues associated to the same period to obtain the net income of the business.Under this concept, the accounting period concept is relevant and it is this concept

(matching concept) which necessitated the provisions of different adjustments for recording outstanding expenses, prepaid expenses, outstanding incomes, incomes received in advance, etc., during the course of preparing the financial statements at the end of the accounting period.

Ex: expenses have been matched with revenue i.e.(Revenue Rs.3150-Expenses Rs.2900) this comparison has resulted in profit of Rs.250. If the revenue is more than the expenses, it is called profit. If the expenses are more than revenue it is called loss. This is what exactly has been done by applying the matching concept.

8. ACCRUAL CONCEPT

The meaning of accrual is something that becomes due especially anamountof money that is yet to be paid or received at the end of the accounting period. It means that revenues are recognized when they become receivable. Though cash is received or not received and the

expenses are recognized when they become payable though cash is paid or not paid. Both transactions will be recorded in the accounting period to which they relate.

The accrual concept under accounting assumes that revenue is realized at the time of sale of goods or services irrespective of the fact when the cash is received. For example, a firm sells goods for Rs 55000 on 25th March 2005 and the payment is not received until 10th April 2005, the amount is due and payable to the firm on the date of sale i.e. 25th March 2005. It must be included in the revenue for the year ending 31st March 2005. Similarly, expenses are recognized at the time services provided, irrespective of the fact when actual payment for these services is made. For example, if the firm received goods costing Rs.20000 on 29th March 2005 but the payment is made on 2nd April 2005 the accrual concept requires that expenses must be recorded for the year ending 31st March 2005 although no payment has been made until 31st March 2005 through the service has been received and the person to whom the payment should have been made is shown as creditor.

ACCOUNTING CONVENTIONS

Accounting conventions are bearing the practical considerations in recording the transactions of the business enterprise in systematic manner.

1. CONVENTION OF CONSISTENCY

The nature of recording the transactions should not be changed at any cause or moment. It should be maintained throughout the life period of the firm. If a firm follows the straight line method of charging the depreciation since its inception should be followed without any change. The firm should not alter the method of charging the depreciation from one method to another. The change cannot be entertained. If any change has to be incorporated, the valid reason for change should be emphasized.

2. CONSERVATISM:

In the prevailing present day uncertainties, the convention of conservatism has its own importance. This convention follows the policy of caution or playing safe. It takes into account all possible losses but not the possible profits or gains. A view opposed to this convention is that there is the possibility of creation of secret reserves when conservatism is excessively applied, which is directly opposed to the convention of full disclosure. Thus, the convention of conservatism should be applied very cautiously.

3. MATERIALITY CONCEPT

Materiality refers to the *significance* of information contained within financial statements. It is considered significant if its inclusion could influence the economic decisions of the users.

4. CONVENTION OF DISCLOSURE

According to this convention, the entire status of the firm should be highlighted / presented in detail without hiding anything; which has to furnish the required information to various parties involved in the process of the firm.

Accounting Standards:

Accounting Standards (AS) are **authoritative written guidelines** issued by recognized regulatory bodies (like the IASB for IFRS or the FASB for U.S. GAAP). They establish the **rules, principles, and methods** for recording transactions and preparing financial statements. Their core function is to transform raw financial data into a **structured, reliable, and understandable** report on an entity's financial health.

The primary objective of these standards is to ensure financial information possesses four crucial qualities for decision-making by investors and creditors:

- **1. Uniformity (Consistency):** AS standardize the treatment of similar transactions across companies and over time. This limits the ability of management to choose overly subjective accounting methods, ensuring that apples are compared only to apples.
- **2. Comparability:** This allows users to meaningfully evaluate a company's performance against its own past results (intra-firm) and against its competitors (inter-firm) because all are following the same reporting language.
- **3. Reliability:** Standards mandate that financial information must be free from material error and bias, supported by evidence, and faithfully represent the underlying economic reality. Adherence to AS is verified by an independent **audit**.
- **4. Transparency:** AS requires the clear and comprehensive disclosure of all material facts and accounting policies in the notes to the financial statements, preventing the obscuring of unfavorable financial details.

Accounting Standards are the **universal language** of finance, promoting market confidence and facilitating efficient resource allocation by ensuring that reported financial performance and position are credible and clear.

2. Objectives of Accounting Standards

1. **Uniformity in Financial Statements**
Ensures all companies follow the same accounting practices.
 2. **Improves Comparability**
Helps investors compare performance across companies and years.
 3. **Ensures Transparency**
Reduces manipulation of accounts.
 4. **Protects Stakeholders**
Ensures fair, true, and unbiased reporting.
 5. **Enhances Credibility**
Financial statements become trustworthy for banks, investors, and regulators.
 6. **Reduces Errors & Misunderstanding**
Clarifies how transactions must be recorded (ex: revenue recognition).
- Helps in Compliance**
Ensures companies follow legal and regulatory requirements

Issuing Authority in India**Before 2016:**

- **Accounting Standards Board (ASB)** → formed by ICAI (Institute of Chartered Accountants of India)
- The Ministry of Corporate Affairs (MCA) notified Accounting Standards for companies.

After 2016:**Global Frameworks**

The two dominant global frameworks are:

Framework	Principles vs. Rules	Key Characteristic

IFRS (International Financial Reporting Standards)	Principles-Based	Focuses on professional judgment and economic substance; used in over 140 countries.
U.S. GAAP (Generally Accepted Accounting Principles)	Rules-Based	Provides highly specific, detailed rules; used primarily in the United States.

Characteristics of Good Accounting Standards

Characteristic	
Clarity	They must be written in a simple and unambiguous language, ensuring they are easy for preparers and users to understand and interpret correctly. This reduces the chance of misapplication or varying interpretations across different entities.
Consistency	The rules and policies must be applied uniformly to similar transactions, ensuring that a company uses the same method period after period and that similar industries use comparable rules.
Flexibility	While maintaining consistency, they should allow for different accounting treatments only when the underlying economic circumstances or transactions are sufficiently different. This prevents a rigid application that might misrepresent reality.
Comparability	The standards must facilitate the evaluation of an entity's financial health against its competitors and its own past performance. This is achieved through the use of standardized reporting frameworks.
Relevance	They must ensure the financial statements provide meaningful and useful information that influences the economic decisions of stakeholders. Information is relevant if it has predictive or confirmatory value.
Neutrality	The standards must be free from bias, ensuring that the resulting financial information faithfully represents the economic events without attempting to influence a particular user decision or outcome.
Practicability	The prescribed rules must be feasible and cost-effective to apply in real-world business scenarios. Complex or expensive requirements that outweigh the benefit should be avoided.

Scope of Accounting Standards

- Presentation of financial statements
- Valuation (inventory, investments, fixed assets)
- Revenue recognition
- Depreciation methods
- Foreign currency transactions
- Employee benefits
- Contingencies & provisions
- Government grants
- Cash flow reporting
- Consolidation of financial statements

List of Indian Accounting Standards (AS) – ICAI

Below are commonly studied standards (AS 1 to AS 29; AS 8 withdrawn).

AS No.	Title	Purpose
AS 1	Disclosure of Accounting Policies	Requires disclosure of significant accounting policies.
AS 2	Valuation of Inventories	Inventory is valued at Cost or NRV whichever is lower.
AS 3	Cash Flow Statements	Provides format for cash flows (operating, investing, financing).
AS 4	Contingencies and Events After the Balance Sheet Date	Reporting significant future uncertainties.
AS 5	Net Profit or Loss and Changes in Accounting Policies	Treatment of prior period items and extraordinary items.
AS 6	Depreciation Accounting	(Merged with AS 10)
AS 7	Construction Contracts	Revenue recognition for long-term contracts.
AS 9	Revenue Recognition	When and how revenue is recognized.
AS 10	Property, Plant & Equipment (Fixed Assets)	Valuation, depreciation, revaluation.
AS 11	Effects of Changes in Foreign Exchange Rates	Treatment of foreign currency transactions.
AS 12	Accounting for Government Grants	Grants, subsidies & incentives treatment.
AS 13	Accounting for Investments	Long-term & short-term investment valuation.
AS 14	Amalgamation	Pooling of interests & purchase method.
AS 15	Employee Benefits	Provident fund, gratuity, leave encashment.
AS 16	Borrowing Costs	Capitalization of interest during construction.
AS 17	Segment Reporting	Reporting financials by segments.
AS 18	Related Party Disclosures	Transactions with related parties.
AS 19	Leases	Finance & operating lease treatment.
AS 20	Earnings Per Share (EPS)	Calculation & disclosure of EPS.
AS 21	Consolidated Financial Statements	Parent–subsidiary consolidation rules.
AS 22	Taxes on Income	Deferred tax concepts.
AS 23	Accounting for Associates	Reporting investment in associates.
AS 24	Discontinuing Operations	Presentation of closed business segments.
AS 25	Interim Financial Reporting	Quarterly financial statements.
AS 26	Intangible Assets	Recognition & amortization of intangibles (patents, trademarks).
AS 27	Joint Ventures	Accounting for joint venture interests.

AS 28	Impairment of Assets	Recognising asset value reduction.
AS 29	Provisions, Contingent Liabilities & Contingent Assets	Recognition of liabilities & risks.

Benefits of accounting standards

Business	Investors	Government
Improves internal control	Better decision-making	Ensures tax compliance
Increases transparency	Reduces investment risk	Helps regulate financial reporting
Enhances credibility	Increases confidence & trust	Supports monitoring of companies
Prevents manipulation	Allows easy comparison	Maintains public interest

Limitations of Accounting Standards

1. Not a substitute for professional judgment
2. Rigid in some cases
3. Costly implementation
4. Frequent updates require continuous learning

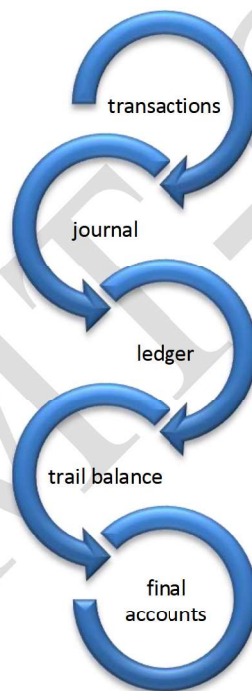
Difficult for small businesses to comply fully

1. ACCOUNTING PROCESS

Book keeping began with the entry of all transactions into one book which recorded the details of transactions. This book was called a book of prime entry or Journal. The transactions were copied from Waste Books or Memorandum Book into the Journal in a chronological order.

This work of entering every transaction into the Journal first and then posting to ledger, however, was soon found to be tedious and cumbersome as well as lacking facilities for ready and easy reference. With the result the Journal was sub-divided into various subsidiary journals to record accounting transactions of similar nature date-wise. First of all the cash transactions were separated and used to be dealt with in another book. Then the transactions relating to credit purchases and credit sales were separated and started to be recorded separately.

A sequence of activities involving the recording of how cash is received and paid out in a company or organization. The accounting process in business is based on four accounting methods, which are: the accrual method, the consistency method, the carefulness method and the going concern method.



JOURNAL

Journal is a historical record of business transaction or events. The word journal comes from the French word —Jour meaning —day. It is a book of original or prime entry. Journal is a primary book for recording the day to day transactions in a chronological order i.e. the order in which they occur. The journal is a form of diary for business transactions. This is called the book of first entry since every transaction is recorded firstly in the journal.

Journal Entry

Journal entry means recording the business transactions in the journal. For each transaction, a separate entry is recorded. Before recording, the transaction is analyzed to determine which account is to be debited and which account is to be credited.

The Performa of journal is shown as follows:

Date (1)	Particulars (2)	L.F. (3)	Debit (Amount) (4)	Credit (Amount) (5)

Column 1 (Date): The date of the transaction on which it takes place is written in this column.

Column 2 (Particulars): In this column, the name of the accounts to be debited is written first, and then the names of the accounts to be credited and lastly, the narration (i.e. a brief explanation of transaction) are entered.

Column 3 (L.F.): L.F. stands for ledger folio which means page of the ledger. In this column are entered the page numbers on which the various accounts appear in the ledger.

Column 4 (Dr. Amount): In this column, the amount to be debited against the 'Dr.' Account is written along with the nature of currency.

Column 5 (Cr. Amount): In this column the amount to be credited against the 'Cr.' Account is written along with the nature of currency.

LEDGER

Ledger is a principal book of accounts of the enterprise. It is rightly called as the 'King of Books'. Ledger is a set of accounts. Ledger contains the various personal, real and nominal accounts in which all business transactions of the entity are recorded. The main function of the ledger is to classify and summarize all the items appearing in Journal and other books of original entry under appropriate head/set of accounts so that at the end of the accounting period, each account contains the complete information of all transactions relating to it. A ledger therefore is a collection of accounts and 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 and shows their net effect.

The main utilities of a ledger are summarized as under:

- (a) It provides complete information about all accounts in one book.
- (b) It enables the ascertainment of the main items of revenues and expenses.
- (c) It enables the ascertainment of the value of assets and liabilities.
- (d) It facilitates the preparation of Final Accounts.

Dr	Name of the account.....	cr
----	--------------------------	----

Date	Particulars	J.F	Amount	Date	Particulars	J.F	amount

Posting refers to the process of transferring debit and credit amounts from the Journal or subsidiary books to the respective heads of accounts in the ledger. Journal will have at a minimum of one debit and one credit for each transaction. The ledger will have either a debit or a credit for each account used in the Journal. Posting may be done daily, weekly, fortnightly or monthly according to the convenience and requirements of the business, but care should be taken to complete it before the preparation of annual financial statements.

Trial balance is a statement prepared with the balances or total of debits and credits of all the accounts in the ledger to test the arithmetical accuracy of the ledger accounts. As the name indicates it is prepared to check the ledger balances. If the total of the debit and credit amount columns of the trial balance are equal, it is assumed that the posting to the ledger in terms of debit and credit amounts is accurate.

According to M.S. Gosav —Trail balance is a statement containing the balances of all ledger accounts, as at any given date, arranged in the form of debit and credit columns placed side by side and prepared with the object of checking the arithmetical accuracy of ledger postings.

OBJECTIVES OF PREPARING A TRAIL BALANCE

- (i) It gives the balances of all the accounts of the ledger. The balance of any account can be found from a glance from the trail balance without going through the pages of the ledger.
- (ii) It is a check on the accuracy of posting. If the trail balance agrees, it proves:
 - (a) That both the aspects of each transaction are recorded and
 - (b) That the books are arithmetically accurate.
- (iii) It facilitates the preparation of profit and loss account and the balance sheet.
- (iv) Important conclusions can be derived by comparing the balances of two or more than two years with the help of trail balances of those years.

NAME OF THE ACCOUNT	DEBIT	CREDIT

CAPITAL EXPENDITURES:

An expenditure which results in the acquisition of permanent asset which is intended to be permanently used in the business for the purpose of earning revenue is known as capital expenditure. These expenditures are 'non-recurring' by nature. Assets acquired by incurring these expenditures are utilized by the business for a long time and thereby they earn revenue.

Examples are:

- (a): machinery was purchased for \$50,000 from Karachi. We paid carriage \$1,000, octroi duty \$500 to bring the machinery from Karachi to Lahore. Then we paid wages \$1,000 for its installation in the factory. For all these expenditures, we should debit machinery account instead of debiting carriage A/c, octroi A/c and wages A/c.
- (b): Fees paid to a lawyer for drawing up the purchase deed of land,
- (c): Overhaul expenses of second-hand machinery etc.
- (d): Interest paid on loans raised to acquire a fixed asset etc.

REVENUE EXPENDITURE:

All the expenditures which are incurred in the day to day conduct and administration of a business and the effect-of which is completely exhausted within the current accounting year are known as "**revenue expenditures**". These expenditures are recurring by nature i.e. which are incurred for meeting day today requirements of a business and the effect of these expenditures is always short-lived.

Examples are:

1. Wages paid to factory workers.
2. Power required running machine or motor.
3. Expenditure incurred in the ordinary conduct and administration of business, i.e. rent, , carriage on saleable goods, salaries, wages manufacturing expenses, commission, legal expenses, insurance, advertisement, free samples, postage, printing charges etc.
4. Repair and maintenance expenses incurred on fixed assets.

CAPITAL RECEIPT:

Receipts which are non-recurring (not received again and again) by nature and whose benefit is enjoyed over a long period are called "Capital Receipts", e.g. money brought into the business by the owner (capital invested), loan from bank, sale proceeds of fixed assets etc. Capital receipt is shown on the liabilities side of the Balance Sheet.

REVENUE RECEIPT:

Receipts which are recurring (received again and again) by nature and which are available for meeting all day to day expenses (revenue expenditure) of a business concern are known as "Revenue receipts", e.g. sale proceeds of goods, interest received, commission received, rent received, dividend received etc.

6. FINAL ACCOUNTS

The basic objective of every business concern maintaining the book of accounts is to find out the profit or loss in their business at the end of the year. Every businessman want to know his financial position of business firm as a whole during the particular period. In order to satisfy the objectives for the firm, it is necessary to prepare final accounts.

The term 'Final Accounts' is a broader term. The three following financial statements are prepared for the preparation of final accounts:

Trading account:

It shows gross profit/loss of the business.

Profit & loss account:

It shows the net profit/loss of the business.

Balance sheet

It shows the financial position of the business.

FINAL ACCOUNTS"

WHY THIS NAME – FINAL ACCOUNTS?

Every businessman is, ultimately, interested to know the final result of the business. These are called final accounts because they are the last accounts, prepared at the end of the year. They serve the ultimate purpose of keeping accounts. Their purpose is to analyze the effect of various incomes and expenses during the year and the resultant profit or loss.

Trading, profit & loss account and balance sheet, all these three together, are called as final accounts. Final result of trading is known through Profit and Loss Account. Financial position is reflected by Balance Sheet. These are, usually, prepared at the close of the year hence known as final accounts.

7. PREPARATION OF FINAL ACCOUNTS

Final accounts have to be prepared, every year, in every business firm. Trading and profit & loss accounts are prepared, after all the accounts have been completely written and trial balance is extracted. Before preparing final accounts, it becomes necessary to examine whether all the expenses and incomes for the year for which accounts are prepared have been duly provided for and included in the accounts. Circumstances and items are common where adjustments, at the end of the accounting period, are to be made. In such items, no cash is involved hence no record has been kept till year-end.

7.1 TRADING ACCOUNT:

Trading Account and Profit and Loss Account are the two important parts of income statements. Trading Account is the first stage in the final account which is prepared to know the trading results of gross profit or loss during a particular period. In other words, it is a summary of the purchases, and sale of a business or production cost of goods sold and the value of sales. The difference between the elements establishes the gross profit or loss which is then carried forward to the profit or loss account for calculation of net profit or net loss.

Accordingly, if the sales revenue is higher than the cost of goods sold the difference is known as 'Gross Profit,' similarly, if the sales revenue is less than the cost of goods sold the difference is known as 'Gross Loss.'

The following Specimen Reformat of a Trading Account which is widely used in practice:

Specimen Preform of trading Account

TRADING ACCOUNT

For the year ended 31.1

Dr		Cr	
Particulars	Amount Rs.	Particulars	Amount Rs.

To Opening Stock		****	By Gross Sales	****	
To Purchases	* * *		Less " Sales Return	****	****
Less, ' Purchase Return	* * *	****	Net Sales		****
To Direct Expenses:		****	By Closing Stock		****
Carriage Inward		****			
Wages (Transferred to Freight		****	By Gross Loss c/d (balance figure)		****
Freight P & LAIc)					
Custom Duty		****			
Fuel and Power		****			
Factory Expenses		****			
Royalty on Production		****			
Other Direct Expenses		****			
To Gross Profit c/d (Transferred to		****			
P & LAIc)(balance figure)					
		*****			*****

Balancing figure will be either Gross Profit or Gross Loss

Elements of trading Account (Debit Side)

- (1) Opening Stock.
- (2) Purchases and Purchase Returns.
- (3) Direct Expenses.
- (4) Gross Profit is the excess value of sales over the cost of Sales.

Elements of Trading Account (Credit Side)

- (1) Sales: The term sales refer to the total of sales of goods which include both cash sales and credit sales during the particular period.
- (2) Sales Return: If any goods returned from the customers will be deducted from the total sales.
- (3) Closing Stock: Closing Stock refers to the goods remaining unsold at the end of the particular period. The closing stock may be raw materials, work-in-progress and finished goods. Generally closing stock does not appear in the Trial Balance. Therefore, the closing stock is not brought into the books of accounts but it is credited to Trading Account and also recorded in the assets side of the Balance Sheet.

Equation of Trading Account

The purpose of preparing the Trading Account is to calculate the Gross Profit or Gross Loss of a concern during a particular period. The following equations are highly useful for determination of Gross Profit or Gross Loss:

Calculation of Gross Profit or Loss

$$\text{Gross Profit} = \text{Sales} - \text{Cost of Sales}$$

$$\text{sales} = \text{Cost of Sales} + \text{Gross Profit}$$

Or

$$\text{sales} = \text{Stock in the beginning} + \text{Purchases} + \text{Direct Expenses} - \text{Stock at the end} + \text{Gross Profit}$$

7.2 PROFIT AND LOSS ACCOUNT

The determination of Gross Profit or Gross Loss is done by preparation of Trading Account. But it does not reveal the Net Profit or Net Loss of a concern during the particular period. This is the second part of the income statement and is called as Profit and Loss Account. The purpose of preparing the profit and loss account to calculate the Net Profit or Net Loss of a concern. Net profit refers to the surplus which remains after deducting related trading expenses from the Gross Profit. The trading expenses refer to inclusive of office and administrative expenses, selling and distribution expenses.

In other words, alloperating expenses such as office and administrative expenses, selling and distribution expenses and non-operatingexpenses are shown on the debit side and all operating and non-operating gains and incomes are shown on the credit side of the Profit and Loss Account. The difference of two sides is either Net Profit or Net Loss. Accordingly, when total of all operating and non-operating expenses is more than the Gross Profit and other non-operating incomes, the difference is the Net Profit and in the reverse case it is known as Net Loss. This Net Profit or Net Loss is transferred to the Capital Account of Balance Sheet.

The following Specimen Preformatted which is used for preparation of Trading, Profit and Loss Account.

Dr Specimen Preformatted of a Profit and Loss Account

Cr

<i>Particulars</i>	<i>Amount Rs.</i>	<i>Particulars</i>	<i>Amount Rs.</i>
To Opening Stock	****	By Gross Sales	****
To Purchases	* *	Less " Sales Return	****
*	****	Net Sales	****
Less, ' Purchase Return	* * *	By Closing Stock	****
To Direct Expenses:	****		
To Carriage Inward	****	By Gross Loss c/d (balance figure)	****
To Wages (Transferred to Freight Freight P & LAIc)	****		
To Gross Profit c/d (Transferred to P & LAIc)(balance figure)	****		
	*****		*****
To Office & Administrative Expenses:	****	By Non-Operating Incomes:	****
To Office Salaries	****	Interest Received	****
To Office Rent and Rates	****	Discount Received	****
To Printing and Stationery	****	Dividend Received	****
To Telephone Charges	****	Income from Investment	****
To Legal Charges	****	Interest on Debenture	****
To Audit fees	****	Any other incomes	****
		By Net Loss c/d (Transferred to Capital	****

To General Expenses	****	Account)	
To Selling Expenses:	****		
To Advertisement	****		
To Discount Allowed	****		
To Commission Paid	****		
To Salesmen Salaries	****		
To Godown Rent	****		
To Carriage Outward	****		
To Agent Commission	****		
To Traveling Expenses	****		
To Distribution Expenses:	****		
Depreciation on Vehicle	****		
Upkeep of Motor Van	****		
Travelers' Salaries	****		
Repairs and Maintenance	****		
To Non-Operating Expenses:	****		
Discount on Issue of Shares	****		
Preliminary Expenses			
To Net Profit <i>c/d</i> } • • •			
(Transferred to Capital <i>Nc</i>)	****		*****

Components appearing on Debit Side of the P & L Alc

Those expenses incurred during the manufacturing process of conversion of raw materials into finished goods will be treated as direct expenses which are recorded in the debit side of Trading Account. Any expenditure incurred subsequent to that will be known as indirect expenses to be shown in the debit side of the Profit and Loss Account. The indirect expenses may be classified into:

- (1) Operating Expenses
- (2) Non-Operating Expenses.

(1) Operating Expenses: It refers to those expenses as the day-to-day expenses of operating a business include office & administrative expenses, selling and distribution expenses

(2) Non-Operating Expenses: Those expenses incurred other than operating expenses. Cooperating expenses which are related to a financial nature. For example, interest payment on loans and overdrafts, loss on sale of fixed assets, writing off fictitious assets such as preliminary expenses, under writing commission etc.

Components appearing on Credit Side of P&L Alc

The following are the components as shown on the Credit Side:

- (1) **Gross Profit** brought down from Trading Account
- (2) **Operating Income:** It refers to income earned from the operation of the business excluding Gross Profit and Non-Operating incomes.

(3) **Non-Operating Income:** Non-Operating incomes refer to other than operating income. For example, interest on investment of outside business, profit on sale of fixed assets and dividend received etc.

7.3 BALANCE SHEET

The Balance Sheet is also described as a statement showing the sources of funds and application of capital or funds. In other words, liability side shows the sources from where the funds for the business were obtained and the assets side shows how the funds or capital were utilized in the business.

Accordingly, it describes that all the assets owned by the concern and all the liabilities and claims it owes to owners and outsiders. The purpose of preparing balance sheet is to know the true and fair view of the status of the business as a going concern during a particular period. The balance sheet is one of the important statement which is used to owners or investors to measure the financial soundness of the concern as a whole.

A statement is prepared to show the list of liabilities and capital of credit balances of the business on the left hand side and list of assets and other debit balances are recorded on the right hand side is known as "Balance

(1) Fixed Assets:

These classes of assets include those of a tangible nature having a specific value and which are not consumed during the normal course of business and trade but provide the means for producing saleable goods or providing services.

(2) Current Assets or Floating Assets :

The assets of a business of a transitory nature which are used for resale or conversion into cash during the course of business operation. In other words, those assets which are easily converted into cash in normal course of business during the shorter period say, less than one year are treated as current or floating assets.

(3) Fictitious Assets :

Fictitious Assets refer to any deferred charges. They are really not assets. Preliminary expenses, Share issue expenses, discount on issue of shares and debentures, and debit balance of profit and loss account etc. are the important components of fictitious assets.

(1) Non-Current Liabilities:

Non-Current Liabilities otherwise known as Long-Term Liabilities. Liabilities which are become due for payment beyond a period of one year say, five to ten years, are treated as Long-Term Liabilities

(2) Capital:

Capital refers to the value of assets owned by a business and which are used during the course of business operations to generate additional Capital or Wealth. It is also known as Owner's Equity or Net Worth. When a business first comes into existence the initial capital may be provided by the proprietor. The initial influx of capital will normally be in the form of cash which need to be converted into plant and machinery, building and stock of materials prior to commencing operations. Thus, capital is equal to the total assets.

(3) Current Liabilities:

Any amount owing by the business which are currently due for payment are referred to as current liabilities. In other words, these liabilities which are paid within one year are treated as current liabilities.

Specimen Form of Balance Sheet

<i>Liabilities</i>	<i>Amount</i>	<i>Assets</i>	<i>Amount</i>
<i>Current Liabilities :</i>		<i>Current Assets :</i>	
Sundry Creditors	*****	Cash in Hand	*****
Bills Payable	*****	Cash at Bank	*****
Bank Overdraft	*****	Sundry Debtors	*****
Outstanding Expenses	*****	Short Term Investments	*****
		* * * Stock in Trade	*****
<i>Long-Term Liabilities :</i>		Bills Receivable	*****
Loan from Bank	*****	Prepaid Expenses	*****
Loan from Mortgage	*****	Accrued Incomes	*****
Debenture	*****		
Any other Long Term	*****	<i>Fixed Assets :</i>	
		Plant and Machinery	*****
<i>Total Liabilities</i>	*****	Furniture & Fixtures	*****
<i>Net worth</i>		Buildings	*****
Capital Account : * * *		Loose Tools	*****
Add: Net Profit * * *		Motor Cars	*****
Add : Interest on Capital * * *		<i>Intangible Assets :</i>	
Less : Drawings * * *	*****	Goodwill	*****
Reserves and Surplus :		Patents	*****
General Reserve	*****	Copy Rights	*****
Reserve for Contingency	*****	Trade Marks	*****
Reserve for Sinking Fund	*****	<i>Fictitious Assets :</i>	
		Preliminary Expenses	*****
		Advertisement Misc. Expenses	*****
	*****		*****

8. ADJUSTMENTS IN FINAL ACCOUNTS

Transactions omitted relate to the current year must be entered in books. If a transaction entered is not related to the current year, fully or partly, that portion of income or expense must be excluded. This process is made through adjustment entries in the books of accounts. If we ignore to make the necessary adjustments, the trading, profit & loss accounts do not show the true profit or loss and in consequence balance sheet fails to depict true financial position of the business. This situation defeats the very purpose of final accounts. Hence, adjustment entries play an important role in presenting correct picture of accounts.

(1). CLOSING STOCK:

The term Closing Stock refers to stock of raw materials, work in progress and finished goods at the end of the year valued at cost price or market price whichever is less. The following adjustment entry is

Closing Stock A/c ... Dr	*****
To Trading Account	*****

The two-fold effect of this entry will be:

- Closing stock will be shown on the credit side of the Trading Account.
- Stock will have a debit balance. Being a real account, it will be shown on the asset side of the Balance Sheet.

Dr **Trading Account for the year ending...** **Cr**

Particulars	Amounts	Particulars	Amounts
		By closing stock	*****

BALANCE SHEET as on

Liabilities	Amounts	Assets	amounts
		closing stock	*****

(2). OUTSTANDING EXPENSES

There are certain expenses, which have been incurred but not paid. These expenses are called outstanding expenses.

Salary AccountDr.	*****
To Outstanding Salary A/c.	*****

The two fold effect of this entry will be:

- Outstanding salary will be added to salary, if any, on the debit side of Profit & Loss Account.
- Outstanding Salary Account, being personal and having credit balance, will be shown on the liabilities side of the Balance Sheet

Dr. **PROFIT & LOSS Account for the year ending...** **Cr.**

Particulars	Amounts	Particulars	Amounts
To salary	*****		

BALANCE SHEET as on

Liabilities	Amounts	Assets	amounts
Outstanding salary	*****		

(3) PREPAID EXPENSES:

Prepaid expenses are also known as unexpired expenses. Those expenses which are incurred and paid in advance. Such expenses are actually related to a future period. In order to ascertain the correct picture of the profit and loss accounts the following adjustment entry is required for adjusting such prepaid expenses.

Prepaid Expenses AccountDr.	*****
To Expenses Account	*****

The double effect of this adjusting entry will be:

- Prepaid insurance will be deducted from the insurance premium on the debit side of the Profit & Loss Account.
- Prepaid insurance, being personal account and having debit balance, will be shown on the assets side of the Balance Sheet.

Dr. PROFIT & LOSS Account for the year ending...**Cr.**

Particulars	Amounts	Particulars	Amounts
To insurance premium *****			
Less prepaid *****	*****		

BALANCE SHEET as on

Liabilities	Amounts	Assets	amounts
		Prepaid insurance	*****

(4) ACCRUED INCOME

Accrued Income otherwise known as Outstanding Income. Such incomes are accrued during the accounting period but not actually received in cash during that period. The adjustment entry will be as follows:

Accrued Income AccountDr.	*****
To Concerned Income Account	*****

The two fold effect of this entry will be:

- (i) Interest on Investment account (accrued interest) will be added to the interest account on the credit side of the profit & loss account.
- (ii) Accrued interest, being personal account and having debit balance, will be shown on the debit side of the Balance Sheet.

Dr. PROFIT & LOSS Account for the year ending... Cr.

Particulars	Amounts	Particulars	Amounts
		By interest *****	
		Add interest accrued *****	

BALANCE SHEET as on

Liabilities	Amounts	Assets	amounts
		Accrued interest	****

(5) INCOME RECEIVED IN ADVANCE

Any income received in advance which is not earned during the accounting period. Therefore, if any income received in advance, it should be treated as income for the subsequent year. The adjustment entry will be:

Income AccountDr.	*****
To Income Received in Advance Account	*****

The two fold effect of this entry will be:

- (i).the income actually earned alone will appear on the credit side of Profit and Loss Account.
- (ii) It shown on the liability side of the balance sheet.The Income Received in Advance is treated as a liability because an amount due to the party

Dr. PROFIT & LOSS Account for the year ending... Cr.

Particulars	Amounts	Particulars	Amounts
		By interest *****	
		less interest Received in Advance *****	

BALANCE SHEET as on

Liabilities	Amounts	Assets	amounts
interest Received in Advance	****		

(6) DEPRECIATION:

The term depreciation refers to loss on account of reduced value of assets due to wear and tear, obsolescence, effluxion of time or accident. Depreciation is treated as the cost or loss raised when the asset is used in the normal course of time. In order to ascertain the correct value of the assets in the balance sheet, it is essential to make the following adjustment entry as:

Depreciation AccountDr.	*****
To Fixed Assets Account	*****

The two fold effect of this entry will be:

- (i) the amount of depreciation is charged to debit side of the profit and loss account
- (ii) It is deducted from the respected assets shown on the asset side of the balance sheet.

Dr. PROFIT & LOSS Account for the year ending... Cr.

Particulars	Amounts	Particulars	Amounts
To depreciation	*****		

BALANCE SHEET as on

Liabilities	Amounts	Assets	amounts
		Machinery	
		*****	*****
		Less depreciation	

(7) INTEREST ON CAPITAL

In order to ascertain true profitability of the business concern, it is essential that profit is determined after deducting interest on the capital provided by proprietor. Interest on capital is included in the capital expenditure and thus the adjustment entry will be:

Interest on Capital AccountDr.	*****
To Capital Account	*****

The two fold effect of this entry will be:

- (i) The Interest on Capital is an expenditure charged to debit side of profit and loss account
- (ii) It is added to capital shown on the liability side of the balance sheet.

The two fold effect of this entry will be:

- (i). Being bad debts are treated as expenses is charged to debit side of profit and loss account.
- (ii) The amount deducted from debtors account shown on the assets side of the balance sheet

Dr PROFIT & LOSS Account for the year ending... Cr.

Particulars	Amounts	Particulars	Amounts
To bad debts	*****		

BALANCE SHEET as on

Liabilities	Amounts	Assets	amounts
		Debtors	*****
		Less bad debts	****

(10) PROVISION FOR DOUBTFUL DEBTS

It is like a bad debt but recovery is doubtful. Thus doubtful debts should not be written off from the books of accounts. Doubtful debts are treated as anticipated loss therefore making suitable provisions required to be made in the books of accounts. In order to ascertain the correct picture of the debtor's balance, it is essential to make an adjustment entry:

Profit and Loss AccountDr. *****
To Provision for Doubtful Account *****

The two fold effect of this entry will be:

- (i).the provision for doubtful debts is an anticipated expenses charged to the debit side of the profit and Loss account
- (ii)It is deducted from the debtor's account shown on the asset side of the balance sheet.

Dr PROFIT & LOSS Account for the year ending... Cr.

Particulars	Amounts	Particulars	Amounts
To bad debts	*****		

BALANCE SHEET as on

Liabilities	Amounts	Assets	amounts
-------------	---------	--------	---------

	Debtors	****	*****
	Less bad debts	***	

11. PROVISION FOR DISCOUNT ON DEBTORS

Sometimes the goods are sold on credit to customers in one accounting period whereas the payment of the same is received in the next accounting period and discount is to be allowed.

Profit and Loss A/c Dr. *****

To Provision for discount on debtors A/c *****

The two fold effect of this entry will be:

- (i). Provision for Discount on Debtors is an anticipated expenses charged to the debit side of the profit and Loss account
- (ii) It is deducted from the debtor's account shown on the asset side of the balance sheet.

Dr PROFIT & LOSS Account for the year ending... Cr.

Particulars	Amounts	Particulars	Amounts
To Provision for discount on debtors	*****		

BALANCE SHEET as on

Liabilities	Amounts	Assets	amounts
		Debtors	****
		(-) Bad debts	***
		(-) Provision for double debts	****
		(-) Discount on debtors	****

Assignment I – Journal

Q.1 Journalize the following relating to April 2009:

Particulars	Rs.
1. R. started business with	1, 00,000
2. He purchased furniture for	20,000
3. Paid salary to his clerk	1,000
4. Paid rent	5,000
5. Received interest	2,000

Date	Particulars	Ledger Folio	Debit Amount (Rs)	Credit Amount (Rs)
1	Cash A/c Dr To Capital A/c		100,000	100,000
2	Furniture A/c Dr To Cash A/c		20,000	20,000
3	Salary A/c Dr To Cash A/c		1,000	1,000
4	Rent A/c Dr To Cash A/c		5,000	5,000
5	Cash A/c Dr To Interest A/c		2,000	2,000

Assignment II – Journal**Q.2 Journalize the following relating to April 2009:**

Date	Transactions	Rs.
2009		
Jan.1	Started business with cash	50,000
Jan.3	Sold Goods to Rohan	40,000
Jan .7	Goods purchased from Sohan	20,000
Jan.20	Paid Rent	500
Jan.25	Commission Received	200
Jan.30	Machinery purchased	10,000
Jan.30	Purchased Furniture	5000
Jan.30	Goods purchased	6000
Jan.30	Cash Sales	8000

Date	Particulars	Debit (Rs.)	Credit (Rs.)
2009 Jan.1	Cash A/c Dr. To Capital A/c (Being the business started with cash)	50,000	50,000
Jan.3	Rohan Dr. To Sales A/c (Being the goods sold to Rohan)	40,000	40,000
Jan.7	Purchase A/c Dr. To Sohan (Being the goods purchased from Sohan)	20,000	20,000
Jan.20	Rent A/c Dr. To Cash A/c (Being the rent paid)	500	500
Jan. 25	Cash A/c Dr. To Commission Received A/c (Being the commission received)	200	200
Jan.30	Machinery A/c Dr. To Cash A/c (Being the machinery purchased)	10,000	10,000
Jan.30	Furniture A/c Dr. To Cash A/c (Being the machinery purchased)	5000	5000
Jan.30	Purchases A/c dr. To cash a/c	6000	6000

Jan.30	Cash a/c dr	8000	
	To sales		8000

Assignment IV – Journal**Q.4 Journalize the following relating to December 2008:**

- December 1, 2008, Ajit started-business with cash Rs. 4,00,000.
 2. December 3, paid into the bank Rs. 20,000.
 3. December 5, purchased goods for cash Rs. 1,50,000.
 4. December 8, sold goods for cash Rs. 60,000.
 5. December 10, purchased furniture and paid by cheque Rs. 50,000.
 6. December 12, sold goods to Arvind Rs. 40,000.
 7. December 14, purchased goods from Amrit Rs. 1,00,000.
 8. December 15, returned goods to Amrit Rs. 50,000.
 9. December 16, received from Arvind Rs. 39,600 in full settlement.
 10. December 18, withdrew goods for personal use Rs. 10,000.
 11. December 20, withdrew cash from business for personal use Rs. 20,000.
 12. December 24, paid telephone charges Rs. 10,000.
 13. December 26, cash paid to Amrit in full settlement Rs. 49,000.
 14. December 31, paid for stationery Rs. 2,000, rent Rs. 5,000 and salaries to staff Rs. 20,000.
 15. December 31, goods distributed by way of free samples Rs. 10,000.
 16. December 31, wages paid for erection of Machinery Rs. 80,000.
 17. Personal income tax liability of X of Rs. 17,000 was paid out of petty cash of business.
 18. Purchase of goods from Naveen of the list price of Rs. 20,000. He allowed 10% trade discount, Rs. 500 cash discount was also allowed for quick payment.

Date	Particulars	Ledger Folio	Debit Amount (Rs)	Credit Amount (Rs)
1-Dec-08	Cash A/c Dr To Capital A/c		400,000	400,000
3-Dec-08	Bank A/c Dr To Cash A/c		20,000	20,000
5-Dec-08	Purchase A/c Dr To Cash A/c		150,000	150,000
8-Dec-08	Cash A/c Dr To Sales A/c		60,000	60,000
10-Dec-08	Furniture A/c Dr To Bank A/c		50,000	50,000
12-Dec-08	Arvind A/c Dr To Sales A/c		40,000	40,000
14-Dec-08	Purchase A/c Dr To Amrit A/c		100,000	100,000
15-Dec-	Amrit A/c Dr		50,000	

08	To Purchase Returns A/c			50,000
16-Dec-08	Cash A/c Dr Discount A/c Dr To Arvind A/c		39,600 400	40,000
18-Dec-08	Drawings Dr To Purchase A/c		10,000	10,000
20-Dec-08	Drawings Dr To Cash A/c		20,000	20,000
24-Dec-08	Telephone A/c Dr To Cash A/c		10,000	10,000
26-Dec-08	Amrit A/c Dr To Cash A/c To Discount A/c		50,000	49,000 1,000
31-Dec-08	Stationery A/c Dr Rent A/c Dr Salary A/c Dr To Cash A/c		2,000 5,000 20,000	27,000
31-Dec-08	Advertising A/c Dr To Purchase A/c		10,000	10,000
31-Dec-08	Machinery A/c Dr To Cash A/c		80,000	80,000
31-Dec-08	Drawings Dr To Petty Cash A/c		17,000	17,000
31-Dec-08	Purchase A/c Dr Discount A/c Dr To Cash A/c		18,000	500 17,500

Assignment VII – final account

Q.7

From the following informations of Jansons Ltd. on 31st March, 2003 you are required to prepare the Trading, Profit and Loss A/c and Balance Sheet:

	Rs.		Rs.
Opening Stock	5,000	Capital	89,500
Bills Receivable	22,500	Commission (Cr.)	2,000
Purchases	1,95,000	Return Outward	2,500
Wages	14,000	Trade Expenses	1,000
Insurance	5,500	Office Fixtures	5,000
Sundry Debtors	1,50,000	Cash in Hand	2,500
Carriage Inward	4,000	Cash at Bank	23,750
Commission (Dr.)	4,000	Rent & Rates	5,500
Interest on Capital	3,500	Carriage Outward	7,250
Stationery	2,250	Sales	2,50,000
Return Inward	6,500	Bills Payable	15,000
		Creditors	98,250
		Closing Stock	12,500

	Cr. 2003	13,700
	Cr. 2003	88,750
	Cr. 2003	10,000

Solution:**Dr. Trading, Profit & Loss A/c of Jansons Ltd. for the year ending 31st March, 2003 Cr.**

Particulars	Amount Rs.	Particulars	Amount Rs.
To Opening Stock	5,000	By Sales	2,50,000
To Purchase	1,95,000	Less : Sales Return	6,600
Less: Purchase Return	2,500	By Closing Stock	1,25,000
To Wages	14,000		
To Carriage Inward	4,000		
To Gross Profit c/d	1,53,000		
	3,68,500		3,68,500
To Insurance	5,500	By Gross Profit b/d	1,53,000
To Commission	4,000	By Commission	2,000
To Interest on Capital	3,500		
To Stationery	2,250		
To Trade Expenses	1,000		
To Rent & Taxes	5,500		
To Carriage Outward	7,250		
To Net Profit c/d	1,26,000		
	1,55,000		1,55,000

	1,22,000	1,22,000
	1,30,000	
	3,200	
	2,200	
	1,000	

Balance Sheet of Jansons Ltd.

Liabilities	Amount Rs.	Assets	Amount Rs.
Creditors	98,250	Cash in Hand	2,500
Bills Payable	15,000	Cast at Bank	23,750
Capital	89,000	Bills Receivable	22,500
Add : Net Profit	1,26,000	Stock	1,25,000
	2,15,500	Sundry Debtors	1,50,000
		Office Fixtures	5,000
	3,28,750		3,28,750

Assignment VIII– final accounts

Q.8: From the following Trial Balance of Mr. y as on 31st March, 2006, prepare Trading Account, Profit and Loss Account and Balance Sheet.

Debit Balance	Rs.	Credit Balance	Rs.
Stock on 1st April, 2005	500	Capital	2,000
Purchases	1,500	Sales	3,500
Land and Building	2,000	Sunday Creditors	750
Bills Receivable	300	Commission	50
Wages	300	Bills payable	300
Machinery	800	Loan	600
Carriage Inward	100		

Carriage Outward 100	100		
Power	150		
Salaries	200		
Discount Allowed	30		
Drawings	100		
Insurance Premium	20		
Cash at Bank	500		
Cash in Hand	100		
Investments	500		
Total	7200	Total	7200

Adjustments

1. Stock as on 31st March 2006 is valued at Rs. 200.
2. Provide depreciation @ 10% on Machinery and @ 5% on Land and Building.
3. Outstanding salaries amounted to Rs.50.
4. Insurance premium is paid in advance to the extent of Rs.10.
5. Allow interest on Capital @ 6% per annum.
6. Interest on loan @ 12% per annum is due for one year.

Solution

Dr TRADING & PROFIT AND LOSS A/C FOR THE YEAR ENDED 31ST MARCH, 2006
Cr

Particulars	Rs.	Particulars	Rs.
To Opening stock	500	By Sales	3500
To Purchases	1500	By Closing Stock	200
To Wages	300		
To Carriage Inward	100		
To Power	150		
To Gross Profit c/d	1,150		
	3,700		3,700
To Salaries 200 Add Outstanding Salaries 50	250	By Gross profit b/d	1,150
To Carriage Inward	100	By Commission	50
To Insurance Premium 20 Less prepaid Ins. 10	10		
To Discount allowed	30		
To Depreciation on: Machinery 80 Land and Building 100	180		
To Interest on Loan	72		
To Interest on Capital	120		

To Net Profit (Transferred to capital account)	438		
	1200		1200

BALANCE SHEET AS ON 31ST MARCH 2006

Liabilities	Rs.	Assets	Rs.
Capital 2,000		Land and Building 2,000	
Add Interest on Capital 120		Less Dep. 100	1900
Add Net profit 438		Machinery 800	
2558		Less Dep. 80	720
Less Drawings Loan 100	2458	Investments	500
		Closing stock	200
Loan 600		Bills Receivable	300
Add Interest O/S 72	672	Cash at Bank	500
Sundry Creditors	750	Cash in Hand	100
Bills payable	300	Prepaid Insurance	10
Outstanding Salaries	50		
	4230		4230

Accounting equation: the formula representing the relationship between a business's assets, liabilities and capital, usually expressed as $A - L = C$ or, when extended to include revenue and expenses,

$$A + E = L + C + R.$$

Liabilities: Present obligations of the entity arising from past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits.

Income statement : a financial summary showing revenue and expenses for the financial period.

Cash book : The book containing the bank account and cash account. Part of the general (impersonal) ledger.

Closing off : Balancing accounts at the end of a financial period.

General ledger The impersonal ledger containing accounts for capital and types of assets, expenses, liabilities and revenue. Also known as the nominal ledger.

Impersonal ledger The general (or nominal) ledger.

Imprest system A method of controlling petty cash by keeping a 'float' which is topped up at intervals.

Journal A book of prime entry used to record the correction of errors and other adjustments between ledger accounts.

Ledger A collection of individual records known as accounts.

Nominal ledger Another name for the general ledger.

Payable A supplier of goods or services who is owed money by the business. Also known as a creditor.

Personal ledgers The Receivables (Debtors) and Payables (Creditors) ledgers, containing the individual accounts of customers and suppliers who trade on credit terms.

Petty cash Small items of expenditure, usually shown in a separate book.

Posting A word used to describe the entering of information in the double-entry system.

Purchases The name of an account in the general ledger which records goods bought for resale.

Receivable A customer or client who owes an amount to the business. Also Known as a debtor.

T account Simple representation of the layout of a ledger account.

Trial balance A list of all the account balances, divided between debit and credit balances at a specific time. If the total debit balances equal the total credit balances, the trial balance is said to 'agree' and shows that the arithmetic of all the entries is correct. It is not a perfect check of overall accuracy.

Appropriation account An additional part of the income statement, inserted after the net profit or loss, showing,

for a partnership, the financial implications of the partnership agreement or, for a limited company, tax and dividend deductions and reserve transfers.

Auditor An independent accountant who reports on whether the financial summaries reflect a true and fair view of a business's affairs.

Columnar layout See Vertical layout.

Cost of manufacturing The first part of a manufacturing company's income statement, showing all the costs, direct and indirect, of producing the goods manufactured in the period.

Direct costs Costs which can be readily identified with the items being produced, for example sugar in a biscuit factory.

Final accounts A name given to the income statement and balance sheet when prepared at the end of a financial period.

Horizontal layout A traditional account format used for the income statement and balance sheet by many mainland European and other countries. Nowadays, it is very unusual in the UK.

Indirect costs All manufacturing costs other than direct costs, e.g. the rent of a biscuit factory.
M.B.A

What is Marketable securities: Surplus cash can be invested in short term instruments in order to earn interest.

Trade Credit: It represents credit granted by suppliers of goods, in the normal course of business.

Funds flow statement: It is the statement deals with the financial resources for running business activities. It explains how the funds obtained and how they used.

Cost accounting: It is thus concerned with recording, classifying, and summarizing costs for determination of costs of products or services planning, controlling and reducing such costs and furnishing of information management for decision making.

Marginal costing: it is a technique of costing in which allocation of expenditure to production is restricted to those expenses which arise as a result of production, i.e., materials, labour, direct expenses and variable overheads.

Mark to market: In future market, at the end of the each trading day, the margin a/c is adjusted to reflect the investors' gains or loss depending upon the futures selling price. This is called mark to market.

. **Meaning of ratio:** Ratios are relationships expressed in mathematical terms between figures which are connected with each other in same manner.

. **Return on share holders' funds:** it indicates measures earning power of equity capital.

Formula:

Profits available for Equity shareholders

-----X 100

Average Equity Shareholders Funds

Define the term accrual: Recognition of revenues and costs as they are earned or incurred. it includes recognition of transaction relating to assets and liabilities as they occur irrespective of the actual receipts or payments.

Define the term preliminary expenses: Expenditure relating to the formation of an enterprise. There include legal accounting and share issue expenses incurred for formation of the enterprise.

b.com

. **Principles of accounting:**

A. Personal a/c: Debit the receiver

Credit the giver

B. Real a/c: Debit what comes in

Credit what goes out

C. Nominal a/c: Debit all expenses and losses

Credit all gains and incomes

. **Credit note:** The customer when returns the goods get credit for the value of the goods returned. A credit note is sent to him intimating that his a/c has been credited with the value of the goods returned.

Bank reconciliation statement: It is a statement reconciling the balance as shown by the bank passbook and the balance as shown by the Cash Book. Obj: to know the difference & pass necessary correcting, adjusting entries in the books.

Amortization: The process of writing of intangible assets is term as amortization

Capital employed: The term capital employed means sum of total long term funds employed in the business. i.e.

(Share capital+ reserves & surplus +long term loans – (non business assets + fictitious assets)

Factoring: It is an arrangement under which a firm (called borrower) receives advances against its receivables, from financial institutions (called factor)

Capital receipts: Capital receipts may be defined as —non-recurring receipts from the owner of the business or lender of the money crating a liability to either of them.

Glossary

Accounting: It is the maintenance of daily record of All financial transactions in such a manner that it would help in the preparation of suitable information regarding the financial affairs of a business or an individual.

Financial Accounting needed: The need for recording financial transactions arises because the individual or business wants to know the performance of the business and to assist the person in making decisions related to the business.

Transactions: In accounting or business terms, any dealing between two persons involving money or a valuable thing is called **transaction**

Cash transaction: When the money value of an item being purchased is paid at the same time the item is exchanged the transaction is said to be a cash transaction

Record Keeping: We can maintain a diary of transactions and note the daily transactions like sale, purchase etc. in it.

Credit transaction: it is an agreement between a buyer and seller for deferred payment on goods and services

Purchases: This term is used for goods to be dealt-in i.e. goods are purchased for resale or for producing the finished products which are meant for sale.

Sales: Sales are total revenues from goods or services provided to customers. Sales may be in cash or in credit.

Assets A resource controlled by the entity as a result of past events and from which future economic benefits are expected to flow to the entity.

Capital The value of the investment of the owner or owners in the business, found by deducting all of the organization's liabilities from all of the organization's assets. Also known as 'equity'.

Expenses Expenditure made by a business related to the revenue generated within the same financial period. It includes goods bought for resale, and overheads such as light and heat, wages and salaries.

Financial accounting: the day-to-day recording of an organization's financial transactions and the summarizing of those transactions to satisfy the information needs of various user groups in accordance with the regulatory framework.

Management accounting the internal accounting needs of an organization, involving planning, forecasting and budgeting for decision-making purposes.

Revenue The revenue generated by the business by selling its goods or services, plus sundry incomes such as interest received.

Bookkeeping The process of recording financial transactions.

Single entry accounting/Cash accounting. This system records only cash movement of transactions and that too up to the extent of recording one aspect of the transactions. This means that only receipt or payment of cash is recorded and no separate record is maintained (about the source of receipt and payment) as to from whom the cash was received or to whom it was paid.

Double entry book keeping/Commercial accounting.

Double entry or commercial accounting system records both aspects of transaction i.e. receipt or payment and source of receipt or payment. It also records credit transactions i.e. recording of Electricity Bill or accruals of Salary payment etc.

Expenses: Costs incurred by a business in the process of earning revenue are called expenses.

Credit: The right-hand side of a ledger account. Liability, capital and income accounts have credit balances. Abbreviated to Cr.

Debit The left-hand side of a ledger account. Asset and expenses accounts have debit balances. Abbreviated to Dr.

M.B.A

1. **Cost of production:** In office and administration overheads are added to factory cost, office cost is arrived at.
2. **Fictitious assets:** These are assets not represented by tangible possession or property. Examples of preliminary expenses, discount on issue of shares, debit balance in the profit And loss account when shown on the assets side in the balance sheet.
3. **Provision:** provision usually means any amount written off or retained by way of providing depreciation, renewals or diminutions in the value of assets or retained by way of providing for any known liability of which the amount cannot be determined with substantial accuracy.
4. **Optimum capital structure:** Capital structure is optimum when the firm has a combination of equity and debt so that the wealth of the firm is maximum.
5. **Time value of money:** The time value of money means that worth of a rupee received today is different from the worth of a rupee to be received in future.

6. **Capital budgeting:** Capital budgeting involves the process of decision making with regard to investment in fixed assets. Or decision making with regard to investment of money in long-term projects

7. **Bridge finance:** It refers to the loans taken by the company normally from commercial banks for a short period pending disbursement of loans sanctioned by the financial institutions.

8. **Certificate of deposits:** The CD is a document of title similar to a fixed deposit receipt issued by banks there is no prescribed interest rate on such CDs it is based on the prevailing market conditions.

9. **GDR (Global depository receipts):** A depository receipt is basically a negotiable certificate, dominated in us dollars that represents a non-US company publicly traded in local currency equity shares.

10. **Master budget:** A summary of budget schedules in container form made for the purpose of presenting in one report the highlights of the budget forecast.

Accounting Career Opportunities

Public Accounting

Careers in auditing, taxation,
And management consulting
Serving the general public.

Private Accounting Careers in

industry working in cost accounting,
budgeting, accounting information
systems, and taxation.

Government

Careers with the IRS, the
FBI, the SEC, and in public
Colleges and universities.

Forensic Accounting

Uses accounting, auditing,
and investigative skills to conduct
investigations into theft and fraud.

Accounting manager

Accounting Manager Role Responsibilities & Duties

- Obtain and maintain a thorough understanding of the financial reporting and general ledger structure.
- Ensure an accurate and timely monthly, quarterly and year end close.
- Ensure the timely reporting of all monthly financial information.
- Assist the Controller in the daily banking requirements.
- Ensure the accurate and timely processing of positive pay transactions.
- Ensure the monthly and quarterly Bank Compliance activities are performed in a timely and accurate manner.

Accounting Manager Skills and Qualifications:

- Advanced computer skills on MS Office, accounting software and databases
- Ability to manipulate large amounts of data
- Developing Budgets, Legal Compliance, Tracking Budget Expenses, SFAS Rules, Accounting, Managing Processes, Reporting Research Results

GTMT-GATE

UNIT – V

Budgets and Budgeting control: Objectives, characteristics and essentials of budgetary control, classification of budgets – production budget, sales budget, cash budget, flexible budget, and master budget. (Problems & Cases)

INTRODUCTION:

A budget is an accounting plan. It is a formal plan of action expressed in monetary terms. It could be seen as a statement of expected income and expenses under certain anticipated operating conditions. It is a quantified plan for future activities – quantitative blue print for action.

Every organization achieves its purposes by coordinating different activities. For the execution of goals efficient planning of these activities is very important and that is why the management has a crucial role to play in drawing out the plans for its business. Various activities within a company should be synchronized by the preparation of plans of actions for future periods. These comprehensive plans are usually referred to as budgets. Budgeting is a management device used for short-term planning and control. It is not just accounting exercise.

MEANING AND DEFINITION:

Budget:

According to CIMA (Chartered Institute of Management Accountants) UK, a budget is —A plan quantified in monetary terms prepared and approved prior to a defined period of time, usually showing planned income to be generated and, expenditure to be incurred during the period and the capital to be employed to attain a given objective.¶

In a view of Keller & Ferrara, —a budget is a plan of action to achieve stated objectives based on predetermined series of related assumptions.¶

A budget is a financial plan for a business, prepared in advance. A budget may be set in money terms, eg a sales budget of £500,000, or it can be expressed in terms of units, eg a purchases budget of 5,000 units to be bought. Budgets can be **income** budgets for money received, eg a sales budget, or **expenditure** budgets for money spent, eg a purchases budget.

The budget we shall be focusing on in this chapter is the **cash budget**, which combines both income and expenditure, estimating what will happen to the bank balance during the time period of the budget.

BUDGETARY CONTROL

Budgetary Control is the process of establishment of budgets relating to various activities and comparing the budgeted figures with the actual performance for arriving at deviations, if any. Accordingly, there cannot be budgetary control without budgets. Budgetary Control is a system which uses budgets as a means of planning and controlling.

According to I.C.M.A. England Budgetary control is defined by Terminology as the establishment of budgets relating to the responsibilities of executives to the requirements of a policy and the continuous comparison of actual with the budgeted results, either to secure by individual actions the objectives of that policy or to provide a basis for its revision.

Brown and Howard defines budgetary control is "a system of controlling costs which includes the preparation of budgets, co-ordinating the department and establishing

responsibilities, comparing actual performance with the budgeted and acting upon results to achieve maximum profitability."

The above definitions reveal the following essentials of budgetary control:

- (1) Establishment of objectives for each function and section of the organization.
- (2) Comparison of actual performance with budget.
- (3) Ascertainment of the causes for such deviations of actual from the budgeted performance.
- (4) Taking suitable corrective action from different available alternatives to achieve the desired Objectives.

BUDGETARY CONTROL

Budgetary Control is planned to assist the management for policy formulation, planning, controlling and co-ordinating the general objectives of budgetary control and can be stated in the following ways:

- (1) *Planning*: A budget is a plan of action. Budgeting ensures a detailed plan of action for a business over a period of time.
- (2) *Co-ordination*: Budgetary control co-ordinates the various activities of the entity or organization and secure co-operation of all concerned towards the common goal.
- (3) *Control*: Control is necessary to ensure that plans and objectives are being achieved. Control follows planning and co-ordination. No control performance is possible without predetermined standards. Thus, budgetary control makes control possible by continuous measures against predetermined targets. If there is any variation between the budgeted performance and the actual performance, the same is subject to analysis and corrective action.

PREPARATION OF BUDGET

Definition of objectives:

A budget being a plan for the achievement of certain operational objectives, it is desirable that the same are defined precisely. The objectives should be written out; the areas of control demarcated; and items of revenue and expenditure to be covered by the budget stated. This will give a clear understanding of the plan and its scope to all those whom must cooperate to make it a success.

Location of the key (or budget) factor:

There is usually one factor (sometimes there may be more than one) which sets a limit to the total activity. For instance, in India today sometimes non-availability of power does not allow production to increase in spite of heavy demand. Similarly, lack of demand may limit production. Such a factor is known as key factor. For proper budgeting, it must be located and estimated properly.

Appointment of controller:

Formulation of a budget usually requires whole time services of a senior executive; he must be assisted in this work by a Budget Committee, consisting of all the heads of department along with the Managing Director as the Chairman. The Controller is responsible for coordinating and development of budget programmes and preparing the manual of instruction, known as Budget manual.

Budget Manual:

Effective budgetary planning relies on the provision of adequate information to the individuals involved in the planning process. Many of these information needs are contained in the budget manual. A budget manual is a collection of documents that contains key information for those involved in the planning process.

Budget period:

The period covered by a budget is known as budget period. There is no general rule governing the selection of the budget period. In practice the Budget Committee determines the length of the budget period suitable for the business. Normally, a calendar year or a period co-terminus with the financial year is adopted. The budget period is then sub-divided into shorter periods; it may be months or quarters or such periods as coincide with period of trading activity.

Standard of activity or output:

For preparing budgets for the future, past statistics cannot be completely relied upon, for the past usually represents a combination of good and bad factors. Therefore, though results of the past should be studied but these should only be applied when there is a likelihood of similar conditions repeating in the future. Also, while setting the targets for the future, it must be remembered that in a progressive business, the achievement of a year must exceed those of years. Therefore, what was good in the past is only fair for the current year.

CHARACTERISTICS OF BUDGET

The main characteristics of budget are as follows:

A budget is concerned for a definite future period.

A budget is a written document.

A budget is a detailed plan of all the economic activities of a business.

All the departments of a business unit co-operate for the preparation of a business budget.

Budget is a means to achieve business and it is not an end in itself.

Budget needs to be updated, corrected and controlled every time when circumstances change. Therefore, it is a continuous process.

Budget helps in planning, coordination and control.

Different types of budgets are prepared by industries according to business requirements.

A budget acts as a business barometer.

Budget is usually prepared in the light of past experiences.

Budget is a constant endeavour of the Management.

ADVANTAGES OF BUDGETARY CONTROL:

Points		Description
1	Efficiency	The use of budgetary control system enables the management of a business concern to conduct its business activities in the efficient manner.
2	Control on expenditure	It is a powerful instrument used by business houses for the control of their expenditure. It in fact provides a yardstick for measuring and evaluating the performance of individuals and their departments.
3	Finding deviations	It reveals the deviations to management, from the budgeted figures after making a comparison with actual figures.
4	Effective utilisation of resources	Effective utilisation of various resources like—men, material, machinery and money—is made possible, as the production is planned after taking them into account.
5	Revision of plans	It helps in the review of current trends and framing of future policies.
6	Implementation of Standard Costing system	It creates suitable conditions for the implementation of standard costing system in a business organisation.
7	Cost Consciousness	Budgets are studied by outside fund providers also such as banking and financial institutions, realising that management encourages cost consciousness and maximum utilisation of available resources.
8	Credit Rating	Management which have developed a well ordered budget plans and which operate accordingly, receive greater favour from credit agencies.

ESSENTIALS OF A BUDGET

An analysis of the above said definitions reveal the following essentials of a budget:

- (1) It is prepared for a definite future period.
- (2) It is a statement prepared prior to a defined period of time.
- (3) The Budget is monetary and / or quantitative statement of policy.
- (4) The Budget is a predetermined statement and its purpose is to attain a given objective.
- (5) A budget, therefore, be taken as a document which is closely related to both the managerial as well as accounting functions of an organization
- (6) Establishment of budgets for each purpose of the business.

- (7) Revision of budget in view of changes in conditions.
- (8) Comparison of actual performances with the budget on a continuous basis.
- (9) Taking suitable remedial action, wherever necessary.
- (10) Analysis of variations of actual performance from that of the budgeted performance to know the reasons thereof.

OBJECTIVES OF BUDGETARY CONTROL:

Budgeting is a forward planning. It serves basically as a tool for management control; it is rather a pivot of any effective scheme of control. The objectives of budgeting may be summarized as follows:

1. **Planning:** Planning has been defined as the design of a desired future position for an entity and it rests on the belief that the future position can be attained by uninterrupted management action. Detailed plans relating to production, sales, raw-material requirements, labour needs, capital additions, etc. are drawn out. By planning many problems estimated long before they arise and solution can be thought of through careful study. In short, budgeting forces the management to think ahead, to foresee and prepare for the anticipated conditions. Planning is a constant process since it requires constant revision with changing conditions.
2. **Co-ordination:** Budgeting plays a significant role in establishing and maintaining coordination. Budgeting assists managers in coordinating their efforts so that problems of the business are solved in harmony with the objectives of its divisions. Efficient planning and business contribute a lot in achieving the targets. Lack of co-ordination in an organization is observed when a department head is permitted to enlarge the department on the specific needs of that department only, although such development may negatively affect other departments and alter their performances. Thus, co-ordination is required at all vertical as well as horizontal levels.
3. **Measurement of Success:** Budgets present a useful means of informing managers how well they are performing in meeting targets they have previously helped to set. In many companies, there is a practice of rewarding employees on the basis of their accomplished low budget targets or promotion of a manager is linked to his budget success record. Success is determined by comparing the past performance with previous period's performance.
4. **Motivation:** Budget is always considered a useful tool for encouraging managers to complete things in line with the business objectives. If individuals have intensely participated in the preparation of budgets, it acts as a strong motivating force to achieve the goals.
5. **Communication:** A budget serves as a means of communicating information within a firm. The standard budget copies are distributed to all management people provide not only sufficient understanding and knowledge of the programmes and guidelines to be followed but also give knowledge about the restrictions to be adhered to.
6. **Control:** Control is essential to make sure that plans and objectives laid down in the budget are being achieved. Control, when applied to budgeting, as a systematized effort is to keep the management informed of whether planned performance is being achieved or not.

Limitations of Budgetary Control System

Points	Description
Based on Estimates	Budgets are based on series of estimates which are based on the conditions prevailed or expected at the time budget is established. It requires revision in plan if conditions change.
Time factor	Budgets cannot be executed automatically. Some preliminary steps are required to be accomplished before budgets are implemented. It requires proper attention and time of management. Management must not expect too much during the development period.
Co-operation Required	Staff co-operation is usually not available during budgetary control exercise. In a decentralised organisation each unit has its own objective and these units enjoy some degree of discretion. In this type of organisation structure coordination among different units are required. The success of the budgetary control depends upon willing co-operation and teamwork.
Expensive	Its implementation is quite expensive. For successful implementation of the budgetary control proper organisation structure with responsibility is prerequisite. Budgeting process start from the collection of requirements to budget and performance analysis. It consumes valuable resources for these purpose, hence, it is an expensive process.
Not a substitute for management	Budget is only a managerial tool and must be applied correctly for management to get benefited. Budgets are not a substitute for management.
Rigid document	Budgets are considered as rigid document. But in reality, an organisation is exposed to various uncertain internal and external factors. Budget should be flexible enough to incorporate ongoing developments in the internal and external factors affecting the very purpose of the budget.

REQUISITES FOR EFFECTIVE BUDGETARY CONTROL

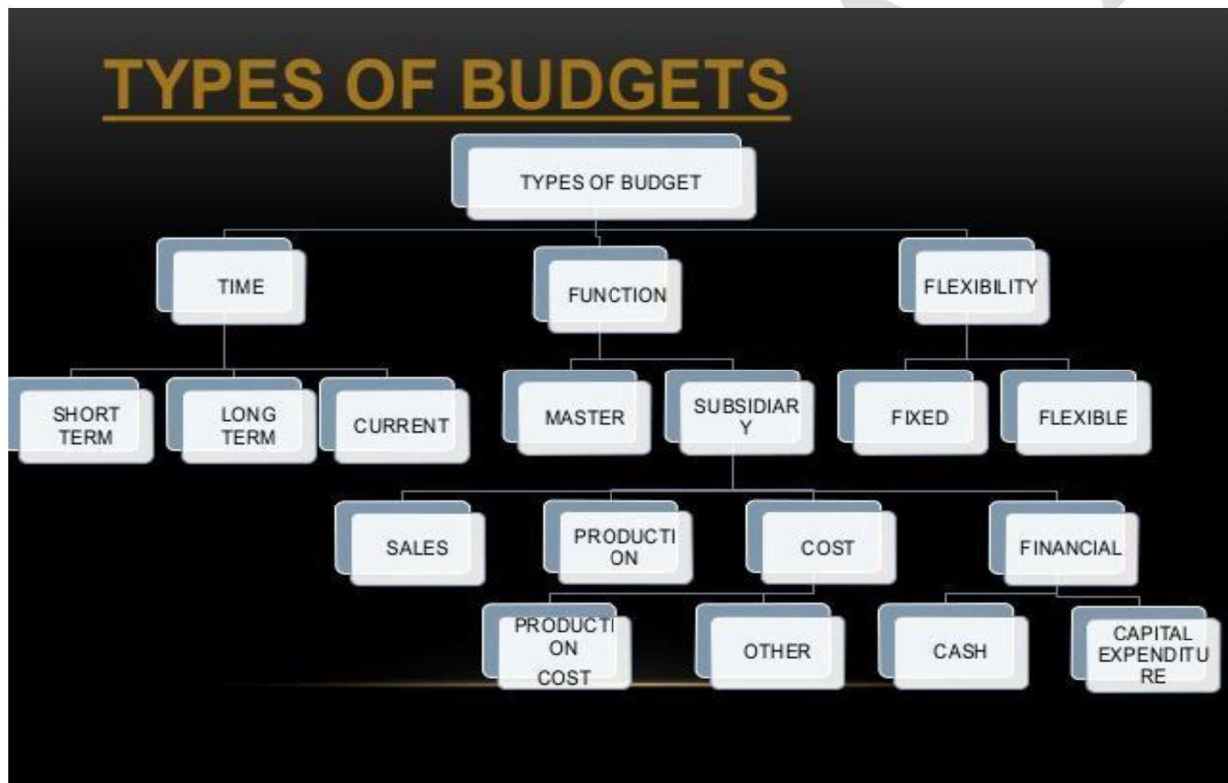
The following are the requisites for effective budgetary control :

- (1) Clear cut objectives and goals should be well defined.
- (2) The ultimate objective of realising maximum benefits should always be kept uppermost.
- (3) There should be a budget manual which contains all details regarding plan and procedures for its execution. It should also specify the time table for budget preparation for approval, details about responsibility, cost centers etc.
- (4) Budget committee should be set up for budget preparation and efficient execution of the plan.
- (5) A budget should always be related to a specified time period.
- (6) Support of top management is necessary in order to get the full support and co-operation of the system of budgetary control.

- (7) To make budgetary control successful, there should be a proper delegation of authority and responsibility.
- (8) Adequate accounting system is essential to make the budgeting successful.
- (9) The employees should be properly educated about the benefits of budgeting system.
- (10) The budgeting system should not cost more to operate than it is worth.
- (11) Key factor or limiting factor, if any, should consider before preparation of budget.
- (12) For budgetary control to be effective, proper periodic reporting system should be introduced.

TYPES OF BUDGETS

As budgets serve different purposes, different types of budgets have been developed. The following are the different classification of budgets developed on the basis of time, functions, and flexibility or capacity.



1. Long-Term Budgets: Long-term budgets are prepared for a longer period varies between five to ten years. It is usually developed by the top level management. These budgets summarise the general plan of operations and its expected consequences. Long-Term Budgets are prepared for important activities like composition of its capital expenditure, new product development and research, long-term finance etc.

2. Short-Term Budgets: These budgets are usually prepared for a period of one year. Sometimes they may be prepared for shorter period as for quarterly or half yearly. The scope of budgeting activity may vary considerably among different organization.

3. **Current Budgets:** Current budgets are prepared for the current operations of the business. The planning period of a budget generally in months or weeks. As per ICMA London, "Current budget is a budget which is established for use over a short period of time and related to current conditions."

MASTER BUDGET –

It is defined as summary budget which includes different functional budgets and which is finally approved adopted and employed. It is defined as a budget which summarises all functional budgets when all functional budgets are prepared they are summarized to produce.

- i. Profit & Loss Account and Profit & Loss Appropriation Account.
- ii. Balance Sheet. Master Budget takes the form of budgeted Profit & Loss Account and Balance Sheet.

It is overall business plan and familiar to financial statements. The only difference is that the accountant here deals with expected future data rather than historical data. The budget committee will prepare the master budget based on the functional budget. Once it is approved by the committee it becomes the target for the firm during the budget period.

FUNCTIONAL BUDGET

SALES BUDGET

The sales budget is an estimate of total sales which may be articulated in financial or quantitative terms. It is normally forms the fundamental basis on which all other budgets are constructed. In practice, quantitative budget is prepared first then it is translated into economic terms. While preparing the Sales Budget, the Quantitative Budget is generally the starting point in the operation of budgetary control because sales become, more often than not, the principal budget factor. The factor to be consider in forecasting sales are as follows:

- ☐ Study of past sales to determine trends in the market.
- ☐ Estimates made by salesman various markets of company products.
- ☐ Changes of business policy and method.
- ☐ Government policy, controls, rules and Guidelines etc.
- ☐ Potential market and availability of material and supply.

PRODUCTION BUDGET

The production budget is prepared on the basis of estimated production for budget period. Usually, the production budget is based on the sales budget. At the time of preparing the budget, the production manager will consider the physical facilities like plant, power, factory space, materials and labour, available for the period. Production budget envisages the production program for achieving the sales target. The budget may be expressed in terms of quantities or money or both. Production may be computed as follows: $\text{Units to be produced} = \text{Desired closing stock of finished goods} + \text{Budgeted sales} - \text{Beginning stock of finished goods}$.

PURCHASE BUDGET

Strategic planning of purchases offers one of the most important areas of reduction cost in many concerns. This will consist of direct and indirect material and services. The purchasing budget may be expressed in terms of quantity or money. The main purposes of this budget are:

- ☐ It designates cash requirement in respect of purchase to be made during budget period; and
- ☐ It is facilitates the purchasing department to plan its operations in time in respect of purchases so that long term forward contract may be organized.

COST OF PRODUCTION BUDGET

After Preparation of production budget, this budget is prepared. Production Cost Budgets show the cost of the production determined in the production budget. Cost of Production Budget is grouped in to Material Cost Budget, Labour Cost Budget and Overhead Cost Budget. Because it breaks up the cost of each product into three main elements material, labour and overheads. Overheads may be further subdivided in to fixed, variable and semi-fixed overheads. Therefore separate budgets required for each item

CASH BUDGET –

A Cash Budget is a projected cash transaction in future that is utilized in controlling actual receipts and payments by mending for the variances. It starts with a given ‘Cash Balance’ which may be either big or small. But the said balance is, in any case, desired to be ‘the optimum balance’. The sign of optimality for a given cash balance is obviously its ability to produce the highest rate of return for the minimum cost for mainly the said cash balance.

The main aim of Cash Budget is to ascertain whether there is excess or deficit of cash. It involves different steps.

- i. The First element is selection of time period to be covered which is known as planning horizon. This coverage will differ from firm to firm depending upon its nature and degree of accuracy.
- ii. The Second element is the factors affecting the cash flows. Non cash items such as, depreciation are excluded from Cash Budget. The cash flow is affected by two factors operating and financial. The operating category includes cash flow generated by operations of the firm and are known as operating cash flows. The other category is known as financial cash flow.

a) Operating Cash Flow contains the following.**INFLOW**

1. Cash Sales
2. Collection from Debtors
3. Sale of Assets

OUTFLOW

1. Cash Purchases
2. Payment to Creditors
3. Purchase of Assets.
4. Operating Expenses Paid

b) Financial Cash Flow contains the following.**INFLOW**

1. Loans taken
2. Sale of Investments
3. Issue of Shares
4. Interest, Dividend, Rent Received.

OUTFLOW

1. Repayment of Loan
2. Purchase of Investment
3. Redemption of Shares
4. Interest, Dividend, Rent Paid

METHODS OF PREPARATION OF CASH BUDGET

Methods used for cash forecasting – There are two recognized ways of preparing a cash forecasting.

1 The Receipt & Payment Method.

2 The Income Statement Cash Flow Method (Adjusted Profit & Loss method)

1 THE RECEIPT AND PAYMENT METHOD –

Under this method, all expected cash receipts and payments during the period; under consideration are taken into account. The expected cash balance of a week or month will be equivalent to the difference between total expected Cash Receipts including opening balance, if any, and total expected Cash Payment during that period. The budget is generally prepared from various plans.

- i. Cash Receipts from Customers, based on sales forecast, the term of sale, lag in payment etc. are generally taken into consideration.
- ii. Cash Receipts from other sources, such as dividend on trade investments, rent, issue of capital, sale of; investment and fixed assets etc.
- iii. Cash requirements for materials, wages and salaries and overhead expenses based on purchasing, personnel and overhead budgets. The policy of the business with regard to the payment of supplier's accounts, the term of cash discount, the lag in payment of wages etc. are given due consideration.
- iv. Cash requirements for capital expenditure as per capital expenditure budget.
- v. Cash requirement for other purposes, such as payment of dividend, income tax, fines, penalties etc.

ADJUSTED PROFIT AND LOSS ACCOUNT:

This method is based on cash and non-cash transactions. This method estimates closing cash balance by converting profit into cash. The hypothesis of this method is that the earning of profit brings equal amount of cash into the business. The net profit shown by profit and loss account does not signify the actual cash flow into the business. This also leads to another assumption, that is the business will remain static, i.e. there will be no wearing out or increase of assets and changes of working capital so that the total cash on hand for the business would be equal to the profit earned.

Model of Cash Budget

Particular	January	February	March
Opening Balance	-	-	-
Add: Receipts:			
Cash Sales	-	-	-
Receipts from Debtors	-	-	-
Interest and Dividend	-	-	-
Sale of fixed assets	-	-	-
Sale of Investments	-	-	-
Bank Loan	-	-	-
Issue Shares & Debenture	-	-	-
Others	-	-	-
Total Receipts (A)	-	-	-
Less: Payments			
Cash Purchases	-	-	-
Payment to creditors	-	-	-
Salaries & wages	-	-	-
Administrative expenses	-	-	-
Selling expenses	-	-	-
Dividend payable	-	-	-
Purchase of Fixed Assets	-	-	-
Repayment of Loan	-	-	-
Payment of taxes	-	-	-
Total Payments (B)	-	-	-
Closing Balance (A - B)	-	-	-

FIXED AND FLEXIBLE BUDGET:**1. FIXED BUDGET:**

A fixed budget is prepared for one level of output and one set of condition. This is a budget in which targets are tightly fixed. It is known as a static budget. It is firm and prepared with the assumption that there will be no change in the budgeted level of motion. Thus, it does not provide room for any modification in expenditure due to the change in the projected conditions and activity. Fixed budgets are prepared well in advance. This budget is not useful because:

- ☐ The conditions go on the changing and cannot be expected to be firm.
- ☐ The management will not be in a position to assess, the performance of different heads on the basis of budgets prepared by them because to the budgeted level of activity.
- ☐ It is hardly of any use as a mechanism of budgetary control because it does not make any difference between fixed, semi-variable and variable costs
- ☐ It does not provide any space for alteration in the budgeted figures as a result of change in cost due to change in the level of activity.

Merits	Demerits
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1. Very simple to understand	1. It is misleading. A poor performance may remain undetected and a good performance may go unrealised.
2. Less time consuming	2. It is not suitable for long period.
	3. It is also found unsuitable particularly when the business conditions are changing constantly.
	4. Accurate estimates are not possible.

2. FLEXIBLE BUDGET:

This is a dynamic budget. In comparison with a fixed budget, a flexible budget is one —which is designed to change in relation to the level of activity attained. An equally accurate use of the flexible budgets is for the purposes of control.

Flexible budgeting has been developed with the objective of changing the budget figures so that they may correspond with the actual output achieved. It is more sensible and practical, because changes expected at different levels of activity are given due consideration. Thus a budget might be prepared for various levels of activity in accord with capacity utilization.

Flexible budget may prove more useful in the following conditions:

- ☐ Where the level of activity varies from period to period.
- ☐ Where the business is new and as such it is difficult to forecast the demand.
- ☐ Where the organization is suffering from the shortage of any factor of production. For example, material, labour, etc. as the level of activity depends upon the availability of such a factor.
- ☐ Where the nature of business is such that sales go on changing.
- ☐ Where the changes in fashion or trend affects the production and sales.
- ☐ Where the organization introduces the new products or changes the patterns and designs of its products frequently.
- ☐ Where a large part of output is intended for the export.

Merits	Demerits
1. With the help of flexible budget, the sales, costs and profit may be calculated easily by the business at various levels of production capacity.	1. The formulation of flexible budget is possible only when there is proper accounting system maintained, perfect knowledge about the factors of production and various business circumstances is available.
2. In flexible budget, adjustment is very simple according to change in business conditions.	2. Flexible Budget also requires the system of standard costing in business.

3. It also helps in determination of production level as it shows budgeted costs with classification at various levels of activity along with sales. Hence the management can easily select the level of production which shows the profit predetermined by the owners of the business.	3. It is very expensive and labour oriented.
4. It also shows the quantity of product to be produced to earn determined profit.	

Model of Flexible Budget

Particulars	Capacity Utilization		
	60%	80%	100%
1. Prime Cost:			
- Direct Material	-	-	-
- Direct Labour	-	-	-
- Direct expenses (if any)	-	-	-
Total (A)	-	-	-
2. Variable overheads:			
- Maintenance & repairs	-	-	-
- Indirect Labour	-	-	-
- Indirect Material	-	-	-
- Factory overheads	-	-	-
- Administrative Overheads	-	-	-
- Selling & distribution O/H	-	-	-
Total (B)	-	-	-
3. Marginal Cost (A + B)	-	-	-
4. Sales	-	-	-
5. Contribution (Sales - MC)	-	-	-
6. Fixed cost			
- Factory overheads	-	-	-
- Administrative Overheads	-	-	-
- Selling & distribution O/H	-	-	-
Total (C)	-	-	-
7. Profit or Loss (C- FC)	-	-	-

Difference between Fixed and Flexible Budgets:

Sl. no.	Fixed Budget	Flexible Budget
1.	It does not change with actual volume of activity achieved. Thus it is known as rigid or inflexible budget	It can be re-casted on the basis of activity level to be achieved. Thus it is not rigid.
2.	It operates on one level of activity and under one set of conditions. It assumes that there will be no change in the prevailing conditions, which is unrealistic.	It consists of various budgets for different levels of activity
3.	Here as all costs like - fixed, variable and semi-variable are related to only one level of activity so variance analysis does not give useful information.	Here analysis of variance provides useful information as each cost is analysed according to its behaviour.
4.	If the budgeted and actual activity levels differ significantly, then the aspects like cost ascertainment and price fixation do not give a correct picture.	Flexible budgeting at different levels of activity facilitates the ascertainment of cost, fixation of selling price and tendering of quotations.
5.	Comparison of actual performance with budgeted targets will be meaningless specially when there is a difference between the two activity levels.	It provides a meaningful basis of comparison of the actual performance with the budgeted targets.

Emerging concepts in accounting: Human resource accounting, inflation accounting, responsibility accounting and government accounting. IFRS, green accounting

INTRODUCTION:

Human Resource Accounting is the process of identifying and measuring data about Human Resources and communicating this information to the interested parties. It is an attempt to identify and report the Investments made in Human Resources of an organisation that are currently not accounted for in the Conventional Accounting Practices.

Thus, **Human Resource Accounting** is a term applied by the Accountancy Profession to quantify the cost and value of employees of their employing organisation.

MEANING:

Human resources are considered as important assets and are different from the physical assets. Physical assets do not have feelings and emotions, whereas human assets are subjected to various types of feelings and emotions. In the same way, unlike physical assets human assets never gets depreciated. Therefore, the valuations of human resources along with other assets are also required in order to find out the total cost of an organization. In 1960s, Rensis Likert along with other social researchers made an attempt to define the concept of human resource accounting (HRA).

DEFINITION:

1. The American Association of Accountants (AAA) defines HRA as follows: ‘HRA is a process of identifying and measuring data about human resources and communicating this information to interested parties’.

2. Flamhoitz defines HRA as ‘accounting for people as an organizational resource. It involves measuring the costs incurred by organizations to recruit, select, hire, train, and develop human assets. It also involves measuring the economic value of people to the organization’.

3. According to Stephen Knauf, ‘HRA is the measurement and quantification of human organizational inputs such as recruiting, training, experience and commitment’.

NEED FOR HRA:

The need for human asset valuation arose as a result of growing concern for human relations management in the industry.

Behavioural scientists concerned with management of organizations pointed out the following reasons for HRA:

1. Under conventional accounting, no information is made available about the human resources employed in an organization, and without people the financial and physical resources cannot be operationally effective.

2. The expenses related to the human organization are charged to current revenue instead of being treated as investments, to be amortized over a period of time, with the result that magnitude of net income is significantly distorted. This makes the assessment of firm and inter-firm comparison difficult.

3. The productivity and profitability of a firm largely depends on the contribution of human assets. Two firms having identical physical assets and operating in the same market may have different returns due to differences in human assets. If the value of human assets is ignored, the

total valuation of the firm becomes difficult. Paper name: - Human Resource Management Stream:

4. If the value of human resources is not duly reported in profit and loss account and balance sheet, the important act of management on human assets cannot be perceived.

5. Expenses on recruitment, training, etc. are treated as expenses and written off against revenue under conventional accounting. All expenses on human resources are to be treated as investments, since the benefits are accrued over a period of time.

OBJECTIVES OF HRA:

1. Providing cost value information about acquiring, developing, allocating and maintaining human resources.

2. Enabling management to monitor the use of human resources.

3. Finding depreciation or appreciation among human resources.

4. Assisting in developing effective management practices.

5. Increasing managerial awareness of the value of human resources.

6. For better human resource planning.

7. For better decisions about people, based on improved information system.

8. Assisting in effective utilization of manpower.

IMPORTANCE OF HUMAN RESOURCE ACCOUNTING

The 21st Century has been referred to as the Century of the Service Sector. All major expansion scope seems to be happening in the service sector and the scope of expansion of the manufacturing sector is minimal.

But are the Accountants properly able to value this Service Sector and show this on the Company's Balance Sheet?

For any Company operating in the Manufacturing Sector, its core assets are its Machinery and Fixed Assets but for a Company operating in the Service Sector, its core assets are its employees which are Intangible Assets. For a Service Sector Company, the value of employees gains importance as earnings are based on the per-employee per hour billing model and profitability is linked to the value added by the workforce.

The Concept of Human Resource Accounting was established primarily for the service sector has now started gaining so much relevance that now Companies in all Sectors have applying HR Accounting and a good weightage is given to these reports when making any Company Analysis.

METHODS OF VALUATION OF HUMAN RESOURCES:

There are certain methods advocated for valuation of human resources. These methods include historical method, replacement cost method, present value method, opportunity cost method and standard cost method. All methods have certain benefits as well as limitations.

Methods of Human Resource Accounting

Quite a few Models have been suggested in the past for the Human Resource Accounting and these can be classified into 2 parts each having various Models. Some of the Important ones are:-

A. Cost Based Models

I. Capitalisation of Historical Costs Model

II. Replacement Costs Model

III. Opportunity Cost Model

B. Value Based Models

I. Present Value of Future Earnings Model/ Lev and Schwartz Model

II. Reward Valuation Model/ Flamholtz Model

III. Valuation on Group Basis

A. COST BASED MODELS

I. Capitalisation of Historical Costs

As per this Method of HR Accounting, the sum of all costs related to Human Resources (i.e. Recruitment, Acquisition, Formal Training, Informal Training, Informal Familiarisation, experience and development) is taken together to represent the value of the human resources.

The value is amortised annually over the expected length of the service of individual employees and the unamortised cost is shown as Investments in the Human Assets. If an employee leaves the firm (i.e. Human Assets expire) before the expected service life period, then the net value to that extent is charged to the Current Revenue.

Limitations

This Model of HR Accounting is simple and easy to understand and satisfies the basic principles of matching the costs and revenues.

1. As the historical costs are sunk costs and are irrelevant for decision making, this model was severely criticised as it failed to provide a reasonable value to the human resources.
2. This method of HR Accounting capitalises only the Training and Development Costs incurred on the employees and ignores the future expected costs to be incurred for their maintenance.
3. This Model of HR Accounting distorts the value of the highly skilled human resources as such employees require less training and therefore, according to this model, they will be valued at a lesser cost.

II. Replacement Costs

The Historical Cost Method was highly criticised as it only takes into account the Sunk Costs which are irrelevant for Decision Making. Thus, a new model for Human Resource Accounting was conceptualised which took into the account, the costs that would be incurred to replace its existing human resources by an identical one.

1. **Individual Replacement Costs** – which refers to the cost that would have to be incurred to replace an individual by a substitute who can provide the same set of services as that of the individual being replaced
2. **Positional Replacement Costs** – which refers to the cost of replacing the set of services referred by an incumbent in a defined position

Thus, the Positional Replacement Cost takes into account the position in the organisation currently held by the employee and also the future positions expected to be held by him.

Limitations

As per this method of HR Accounting, the determination of replacement cost of an employee is highly subjective and often impossible. Particularly at the management cadre, finding out an exact replacement is very difficult. The exit of a top management person may substantially change the human assets value.

III. Opportunity Cost Model

This model was advocated by Hekimian and Jones in the year 1967 and is also known as the Market Value Method.

This method of measuring Human Resources under this Model is based on the concept of opportunity cost i.e. the value of an employee in its alternative best use, as a basis of estimating the value of human resources. The opportunity cost value may be established by competitive bidding within the firm, so that in effect, managers bid for any scarce employee. A human asset therefore, will have a value only if it is a scarce resource, that is, when its employment in one division denies it to another division.

Limitations

One of the serious limitations of this method for Human Resource Accounting is that it excludes employees of the type which can be hired readily from outside the firm. Thus, this approach seems to be concerned with only one section of a firm's human resources, having special skills within the firm or in the labour market.

B. ECONOMIC VALUE MODELS**I. Present Value of Future Earnings Model**

This Model of human resource accounting was developed by Lev and Schwartz in the year 1971 and involves determining the value of human resources as per the present value of estimated future earnings discounted by the rate of return on Investment (Cost of Capital).

As per this valuation model of Human Resource Accounting, the following expression is used for calculating the expected value of a person's human capital

Limitations

1. This Model of HR Accounting ignores the possibility and probability that an Individual may leave an organisation for reasons other than Death or Retirement.
2. This Model of HR Accounting also ignores the probability that people may make role changes during their careers. For example, an Assistant Engineer will not remain in the same position throughout the expected service life in the Organisation.

Despite the above limitations, this model is the most commonly used model across the Globe for the purpose of Human Resource Accounting.

II. Reward Valuation Model/ Flamholtz Model

Flamholtz advocated that an Individual's Value to an organisation is determined by the services he is expected to render. This model of Human Resource Accounting is an improvement to the —Present Value of Future Earnings Model as it takes into account the probability that an individual is expected to move through a set of mutually exclusive organisational roles or service states during a time interval. Such movement can be estimated probabilistically by using the following model

Limitations

1. The major drawback of this model of Human Resource Accounting is that it is difficult to estimate the probabilities of likely service states of each employee.
2. Determining the monetary equivalent of service states is also very difficult and costly affair.
3. Since the analysis is restricted to Individuals, it ignores the value added element of Individuals working as groups.

III. Valuation on Group Basis

While applying the above models, the Accountants realised that proper Valuation as per Human Resources Accounting is not possible unless the contributions of the Individuals as a Group are taken into consideration.

An Individual's expected service tenure in the organisation is difficult to predict but on a group basis it is relatively easier to estimate the percentage of people in a group likely to leave the organisation in the future. This model of Human Resource Accounting attempted to calculate the present value of all existing employees in such in each rank. Such Present Value is ascertained with the help of the following steps:-

1. Ascertain the number of employees in each rank
2. Estimate the probability that an employee will be in his rank within the organisation or will be terminated in the next period. This probability will be estimated for a specified time period.
3. Ascertain the economic value of an employee in a specified rank during each time period.
4. The present value of existing employees in each rank is obtained by multiplying the above three factors and applying an appropriate discount rate.

Limitations

Although this process simplifies the process valuation of Human Resource Accounting by considering a group of employees as a valuation base, but this method ignores the exceptional qualities of certain skilled employees. Thus, the performance of a group may be seriously affected in the event of exit of a single individual.

BENEFITS OF HRA:

There are certain benefits for accounting of human resources, which are explained as follows:

1. The system of HRA discloses the value of human resources, which helps in proper interpretation of return on capital employed.
2. Managerial decision-making can be improved with the help of HRA.
3. The implementation of human resource accounting clearly identifies human resources as valuable assets, which helps in preventing misuse of human resources by the superiors as well as the management.

4. It helps in efficient utilization of human resources and understanding the evil effects of labour unrest on the quality of human resources.
5. This system can increase productivity because the human talent, devotion, and skills are considered valuable assets, which can boost the morale of the employees.
6. It can assist the management for implementing best methods of wages and salary administration. Paper name: - Human Resource Management Stream

LIMITATIONS OF HRA:**HRA is yet to gain momentum in India due to certain difficulties:**

1. The valuation methods have certain disadvantages as well as advantages; therefore, there is always a bone of contention among the firms that which method is an ideal one.
2. There are no standardized procedures developed so far. So, firms are providing only as additional information.
3. Under conventional accounting, certain standards are accepted commonly, which is not possible under this method.
4. All the methods of accounting for human assets are based on certain assumptions, which can go wrong at any time. For example, it is assumed that all workers continue to work with the same organization till retirement, which is far from possible.
5. It is believed that human resources do not suffer depreciation, and in fact they always appreciate, which can also prove otherwise in certain firms.
6. The lifespan of human resources cannot be estimated. So, the valuation seems to be unrealistic.

INFLATION ACCOUNTING**INTRODUCTION :**

The basic objective of Accounting is the preparation of financial statements in a way that they give a true and fair view of the operating results and the financial position of the business to its various users, namely investors, creditors, management, Government, trade unions, research institutions etc. These financial statements are prepared based on certain accounting concepts and conventions. The money measurement concept is a basic attribute of accounting. The money measurement concept states that only those business transactions that are capable of being expressed in terms of money can be recorded in the books of account. It also assumes that the monetary unit used for recording the transaction is stable in nature.

However, this is not true in practice as many countries, developed as well as developing, have been experiencing inflation of high magnitude in recent times. Inflation refers to a state of continuous rise in prices. It brings about changes in the purchasing power of the monetary unit. Thus, financial statements prepared without taking into account the change in purchasing power of the monetary unit lose their significance. There is a demand that business enterprises should prepare inflation adjusted financial statements. The different ways through which financial accounts can be adjusted for changing prices is studied under the subject "Inflation Accounting". Given that price changes can also be downward, it is more appropriately called "Accounting for price level changes".

HISTORY OF INFLATION ACCOUNTING :

Inflation accounting was practiced in the Us by the American Institute of Certified Public Accountants for over 50 years. During the period of Great Depression many companies reconstructed their financial reports recording the inflation in them. During those 50 years many companies were encouraged to record the price-level adjusted statements in place of cost-based financial statements. The FSAB or the Financial Accounting Standards Board raised a proposal of publishing the price-level adjustment statements which was withdrawn by them later due to certain problems.

MEANING OF INFLATION ACCOUNTING :

Inflation accounting is a term describing a range of accounting models designed to correct problems arising from historical cost accounting in the presence of high inflation and hyperinflation. Inflation accounting may be described as an attempt to portray financial performance of business enterprises on the basis of current prices. Special accounting techniques, which can be used during periods of high inflation. Inflation accounting requires statements to be adjusted according to price indexes, rather than rely solely on a cost accounting basis. Companies operating in countries experiencing hyperinflation may be required to update their statements periodically, in order to make them relevant to current economic and financial conditions.

OBJECTIVES OF INFLATION ACCOUNTING :

Inflation accounting aims at infusing the element of realism in the process of compilation of the financial statements, by making the necessary adjustments (in the figures of the historical costs) to the best possible extent, with a view to representing the currently prevailing prices of the various items in the market, caused by the effect of inflation. It reflects, in a true and fair manner, the financial position and performance, profitability and prospects, of the enterprise, during the respective accounting periods. In other words, it aims at convening the monetary units, having different purchasing powers, into one single monetary unit, whose purchasing power is uniform for various valuations and computations. The resultant effects of the inflation accounting adjustments are :

1. To enhance the meaning and measurement of the income and expenditure of the enterprise, keeping in view the ever-changing purchasing power of the momentary unit, the specific currency.
2. This, in turn makes the intra-firm comparison of the financial results of the company more realistic, rational and meaningful.
3. To highlight and specify the effect of inflation on different enterprises, depending upon their different nature of business as also the operating features.
4. To provide a meaningful and reliable database, facilitating a realistic and rational decision-making process in the organisation.

NEED FOR INFLATION ACCOUNTING :

Inflation, especially when it is prolonged and high, reduces considerably the meaningfulness and use of the corporate accounts because the various amounts in current rupee values may not signify proportionate real amounts, as the real worth of the rupee varies in different years. Moreover, arithmetical operations involving different amounts in rupees having different real worth become quite misleading. To make the accounts more meaningful, all items should be expressed in values relating to common year. This is attempted through inflation accounting, the following reasons usually being advanced in its favor.

1. It helps to correct the usually distorted picture of the financial operations and condition of a company presented by the conventional system of accounts.
2. It facilitates inter-company comparisons since inflation hits different firms in different degrees.
3. It also facilitates inter-period comparisons of the performance of firm.
4. Correct measurement of income is possible only with inflation accounting.
5. When some nominal value in the accounts forms the basis of government action, e.g., taxation based on profits, MRTP Act measures based on nominal value acting as proxy for relevant variables, determination of controlled price on the basis of nominal profits and so on, inflation may cause unfair decisions by the government, unless the relevant nominal value is adjusted for inflation.

ADVANTAGES OF INFLATION ACCOUNTING :

The approach offers following advantages :

- It enables the maintenance of capital intact which is essential in a limited liability business like companies.
- Profit/loss is determined by matching the cost and the revenue at current values which are comparable. This enables a realistic assessment of performance of the business.
- The assets are shown at real values uniformly instead of at distorted values as in historical rupee values.
- Trade unions, employees, shareholders and public are not misled by giving an exaggerated profit figure. "The profit earned is taken as a guide to prosperity by actual and potential investors and quite often trade unions base their wage claims on the assumption that a company can afford to pay higher wages because profits are higher."
- By showing the current values of fixed assets it enables the establishment of a realistic price for the company's shares.

DISADVANTAGES OF INFLATION ACCOUNTING :

The approach suffers from the following disadvantages too :

- Depreciation being the process of distribution on original cost over the effective life, charging anything in excess does not fit into the concept of depreciation.
- 'Replacement cost' is an indefinite figure colored by future technological developments and the time period at which the asset will be scrapped. Hence even the best estimate cannot give an accurate estimate of replacement costs.
- Charging depreciation on replacement cost basis will not be acceptable to income-tax authorities and hence there is no use of doing this exercise.
- The calculators are so involved that an average shareholder will not be able to understand the financial statements easily. Despite some obvious conceptual weaknesses and practical difficulties, the technique of inflation accounting is very useful. Due to rapid changes in price-levels, it has become rather a basic necessity to adjust accounts at current prices. How the various difficulties involved in it are resolved, is a challenge to the accountants.

EXPLAIN THE METHODS/TECHNIQUES OF INFLATION ACCOUNTING.

Number of techniques has been developed by professional institute and accountants to deal with inflationary conditions. The important among them are as follows.

METHODS/TECHNIQUES OF INFLATION ACCOUNTING :**1) Replacement Cost Method :**

The replacement cost method, also called replacement value method, is based on the principle that sufficient provision should be made in the profit and loss account for the amount needed to meet the cost of replacement of all fixed assets as and when they wear out. Under this method, therefore, charges to profit and loss account would be made to provide for replacement cost instead of depreciation cost which is designed to amortise the cost of fixed assets over their useful life.

2) Writing-up of Fixed Assets :

Under this method, a portion of the value of fixed assets should be written off annually from the income statement of the company in addition to its normal depreciation charges. The amount to be written off will be determined on the basis of obsolescence in fixed assets as we do in the case of internal reconstruction of a company. The main problem in this method is this that the amount to be written off is a subjective decision; and secondly, this technique cannot be applied to all types of assets.

3) Replacement Cost Method Covering Fixed Assets and Inventories :

This method is an improvement over the first method as it includes inventory valuation problem too. The replacement cost of inventories consumed is kept in mind in the computation of the cost of goods sold. The replacement cost approach covers a number of variants (such as maintenance

of real capital approach, anticipated cost approach, current cost approach and purchasing power approach), though all of them have one thing in common: they specifically allow for the effects of changes in prices and cost levels and relate depreciation, stock valuations and other cost computations to current replacement costs.

2) Present Value Accounting Method :

This method is also known as current value method. This method refers to a variety of valuation alternatives that focus on reflecting the current as opposed to past (or historical) values of financial statement items. By present value we simply mean the replacement cost as a concept of valuation. In respect of certain types of assets, we use the net realisable value as a basis of valuation (for the assets which are not essential to the continuance of the operations of the enterprise) on the other hand for comparatively permanent assets we use the discounted present value of the assets.

3) Continuously Contemporary Accounting Method :

This method also belongs to the family of replacement cost accounting. It involves the adjustment or modification of financial statements expressed in units of money so that relevant information is given in terms of existing purchasing power of money. Such general purchasing power adjustments can be applied under both historical cost and a current value system.

The method requires adjustment to every item in financial statements prepared on a historical cost basis. Each item is expressed in a single unit of purchasing power. The gain or loss on account of holding monetary items is determined and included in income measured on a purchasing power basis. These general purchasing power adjusted financial statements are proposed as supplementary information and they are presented in summarised form together with the historical cost statements. Obviously, the method involves more accounting work.

4) Current Purchasing Power Method :

This method is based on the assumption that capital should be maintain in terms of the same monetary purchasing power. The accounts are duly adjusted for changes in the price level by restating all items appearing in the financial statements in terms of a constant unit of money. The constant unit of money referred to above Is known as the general purchasing power. A general price index is used as a multiplier.

The reason underlying this is that the general price index is perhaps the best indicator of changes in the purchasing power of money. Under this method, the actual movements i.e. rise or fall in the price of a given item is ignored and only changes in the general purchasing power of money is considered. The proponents of this use the historical values and convert the same into the value of purchasing power as at the end of a specified period. In order to do so two index numbers are used one showing the general price level on the date of the transaction while the other portrays the general price level at the end of the period specified. The current purchasing power method of accounting for price level changes measures profit as the increase in the current purchasing power of equity i.e., net assets. The valuations of all items are made in terms of current purchasing power.

Definition of Responsibility Accounting

Responsibility accounting refers to the process of identifying and spotting the centers of responsibility accounting and their objectives; this helps the organization to analyze and draft a performance report of all the responsibility centers, additionally, these centers are also responsible for reporting revenues and expenses as per the responsibility areas.

Explanation

- Basically, responsibility accounting is defined and based on the defined centers like cost centers, profit centers, and investment centers.
- Responsibility accounting is a sort of management accounting that is responsible for internal accounting, budget related issues, and management concerns.
- The main and crucial objective is to support all the centers within the company and help them with costing and planning.
- The accounting we referred to above relates to the preparation of annual or monthly budget which is allocated or designed for any particular center.
- This accounting style also accounts for the revenue and cost of any company, where quarterly and annual reports are being accumulated and then reported to the manager for the review or feedback.
- In responsibility accounts, a specific person is a help responsible for looking into an assigned area of accounting and cost control of the same, so that it is convenient to hold the person responsible for any increase in cost.
- In this accounting, tasks and responsibilities are assigned based on the knowledge and skillset an individual possess, and proper authority might be given to that person so that he can autonomously take decision pertaining to that department.

History of Responsibility Accounting

- The responsibility accounting was introduced in the year 1920s with the intention to handle all the different levels of authority in any organization's management.
- During the 1950s and 1960s, the economic activities of the companies were significantly diversified significantly increasing the demand of responsibility accounting and decentralization.

Features of Responsibility Accounting

Some of the features are given below:

- The main feature of responsibility accounting is to define the cost centers at the initial stage which we earlier referred to as responsibility centers.
- For each center, there should be a fixed target which the department has to achieve in the defined deadline, so setting targets for the center is very crucial.
- Then, we must track the performance of each responsibility center and also compare the actual performance with the target performance.

The variance between the actual performance and target performance is analyzed and post that the responsibility of each center should be fixed.

- Then corrective action has to be taken by the management and it should be individually communicated to the concerned person taking care of the responsibility center.

Example of Responsibility Accounting

Example of responsibility accounting is given below:

- Let us take an example from the cost center perspective, Amgen a renowned pharmaceutical company proposes to produce vaccinations for Polio in a batch of 100,000 in 3 phases. The company estimated the cost of \$25 million for all three phases spanned out in 6 months.
- However, post the production of the vaccine the company ended up spending \$26.5 million, so here the responsibility account manager must justify the increased cost to the management.
- There can be several reasons, increased cost of raw materials, increased per unit of electricity cost or any new government policy leading to an increase in the cost.

Types of Responsibility Accounting

There are various types, let us discuss them in detail below:

- **Cost Center:** As the name suggests the persons involved in this center are responsible for controlling cost for the company and they are not responsible for any other functions in the company. However, there are two types of costs namely controlled and uncontrolled, a person should be held responsible for the controlled costs, and the performance of each center is evaluated by comparing the actual vs estimated costs.
- **Revenue Center:** Revenue takes care of the revenue for the company and no other related responsibilities, mostly the sales related teams are accountable for this center.
- **Profit Center:** The performance of this center is measured in terms of revenue and cost and the team working in this center has to make sure to report accurate numbers. Generally, a factory can be considered as a profit center where the raw materials as input are a part of the cost center and sales of the finished goods are revenue center.
- **Investment Center:** We can say that this is a very important center to be on, as this team has to make sure that the assets of the company are properly utilized in the best manner so that the company effectively capitalize on the deployed capital and earn handsome revenues from the same.

Prerequisites of Responsibility Accounting

- As much as effective is responsibility accounting it is equally important to have some prerequisites as a company.
- The initial one is to have a well-defined organizational structure, where the levels of employees are clearly defined, and authorization is efficiently established within the firm.
- The measures which will help to analyze the performance and evaluate must be clearly established and explained to the entire team.

Advantages of Responsibility Accounting

Some of the advantages are:

- The most and the crucial advantage of responsibility accounting is that every accounted person knows the roles and responsibilities he has towards the company, this helps to maintain transparency in the firm.
- Since there are different departments accountable for different activities within the organization, chances of any information mishandling or misreporting are very slim.
- It surely enhances and improves the accuracy of managers working closely with different centers as they are liable for every action within that particular center.

Government accounting is a scientific procedure of collecting, classifying, recording, summarizing, and interpreting all the financial transactions including revenues and expenditures of all the government offices. It keeps the record of public funds.

Followings are the main objectives of the Government Accounting –

- **Information about Revenues** – One of the most important functions of the Government accounting is to maintain the transactions of generation and collection of revenues during the financial year (and maintain all the past years' financial data). Under the 'Right to Information Act,' if someone asks to have the information regarding the financial transactions of a government office, it is obliged to provide that.
- **Information about Expenditures** – One of the most important objectives of the Government accounting is to provide information about the expenditures incurred on various heads. It is checked by the Parliament in case of Central Government and state legislature in case of the State Government.
- **Information about Deposits and Loans** – Government has to provide information about the loan granted by the Government to others and repayment of the deposits.
- **Information about Availability of Cash** – It has to provide information about the present and the future cash availability.

DIFFERENCE BETWEEN GOVERNMENT AND COMMERCIAL ACCOUNTING

There are following notable differences between the Government accounting and the commercial accounting –

Headings	Govt. Accounting	Comm. Accounting
Objective	Administration and management of all the financial activities of the government.	Maintain the records of trading and manufacturing of goods or to provide services to calculate profits.
Date Entry System	It has single entry system — Govt. does not work to earn profit; so, it does not need cross-	Normally, it has double entry system — need to prepare

	check the accounting records.	Trading & Profit & Loss account and Balance Sheet at the end of the accounting period.
Basis of Accounting statements	Accounting statements are also prepared on the basis of single entry system. Most of the statements are merely statements of collections of revenue and expenditures done, except where the Government acts like a banker or lender or borrower.	Accounting statements are prepared on the basis of double entry system.

Important Terms and Expressions of Government Finance

Following are the important terms and expressions used in Government accounting –

- **Demand for Grant** – Without sanction from the Parliament, no expenditure can be incurred by any Government Authority. Public Authority can request for the grant of expenditure to the Government, this request is called —**Demand for Grant**||.
- **Supplementary Grant** – Sometimes, grants are sanctioned before the end of the financial year, in case where annual budget might be inadequate. Supplementary demand can be made, if need arises to meet the expenditure. For example, amount granted for the Natural Disaster Relief fund, may be found inadequate due to extraordinary disaster by the flood; in such a condition, an additional grant may be asked by the concerned state or ministry.
- **Treasuries** – Treasuries are the units of fiscal system in India. Every Indian States and Union Territory is divided into different districts' headquarters and every district headquarters has one or more than one treasury. Treasuries are conducted by the State Bank of India as an agent of the Reserve Bank of India. Central Government and State Government keep their separate accounts and differences of Central and State Govt. are adjusted by the Reserve Bank of India.
- **Votable and Non-votable Items** – To incur some expenditures, Parliamentary approval is not required; so, these expenditures may be charged from the Consolidated fund or the Public account, these items are known as **Non-votable** items. Some items of expenditure require sanction of the Parliament and cannot be incurred without its grant. Thus, demand for grant for that expenditure may be placed to the government, such items are called as **Votable** Items.
- **Appropriation Act** – After the approval of the budget proposal in the Parliament or Legislature, an Appropriation Bill has to be introduced, when this Bill is passed, it becomes Appropriation Act. Now, money can be withdrawn from the Consolidated Fund of India or the concerned State to meet the grants.
- **Vote on Account** – In certain condition, when government has no time to place full budget in the Parliament, then it uses the special provision of _Vote on Account._ Under this provision, government obtains the vote of the Parliament for the amount required to incur the expenditure of the items in demand. After sanction obtained in the Parliament, government obtains money from the Consolidated Fund of India.

- **Public Accounts Committee (PAC)** – Public Account Committee is formed by the Parliament and each Legislature to scrutinize the Appropriation account and Audit the report thereon. All the reports on financial statements those are to be submitted to the President of India and in the Parliament are examined by the Public Accounts Committee (PAC). Examination by the PAC is similar to post-mortem of the reports. Members of the PAC are appointed from the Opposition Parties of the Parliament. Member of the ruling party cannot be part of this committee, as this committee is working as a watchdog to look after the affairs of ruling party.
- **Local Government Accounting** – Accounting of the Local government is based on the concept of —fund accounting and on the budget. Urban local government entities and rural local government entities are two types of local government entities. Accounting of the Local Government in India comprises budget, Receipt, and payment accounts.

Government Fund

Government of India has following three types of Funds for maintaining the records of all sorts of financial transactions –

- Consolidated Funds of India
- Contingency Funds of India
- Public Account

Let's discuss each of them succinctly –

Consolidated Funds of India

As per the Clause 1 of the Article 266 of the Indian Constitution –

“All revenues received by the Government by way of taxes like Income Tax, Central Excise, Customs and other receipts flowing to the Government in connection with the conduct of Government business i.e. Non-Tax Revenues are credited into the Consolidated Fund constituted. Similarly, all loans raised by the Government by issue of Public notifications, treasury bills (internal debt) and loans obtained from foreign governments and international institutions (external debt) are credited into this fund. All expenditure of the government is incurred from this fund and no amount can be withdrawn from the Fund without authorization from the Parliament.”

Contingency Funds of India

As per the Article 267 of the Indian Constitution –

“The Contingency Fund of India records the transactions connected with Contingency Fund set by the Government of India. The corpus of this fund is Rs. 50 crores. Advances from the fund are made for the purposes of meeting unforeseen expenditure which are resumed to the Fund to the full extent as soon as Parliament authorizes additional expenditure. Thus, this fund acts more or less like an imprest account of Government of India and is held on behalf of President by the Secretary to the Government of India, Ministry of Finance, and Department of Economic Affairs.”

Public Account

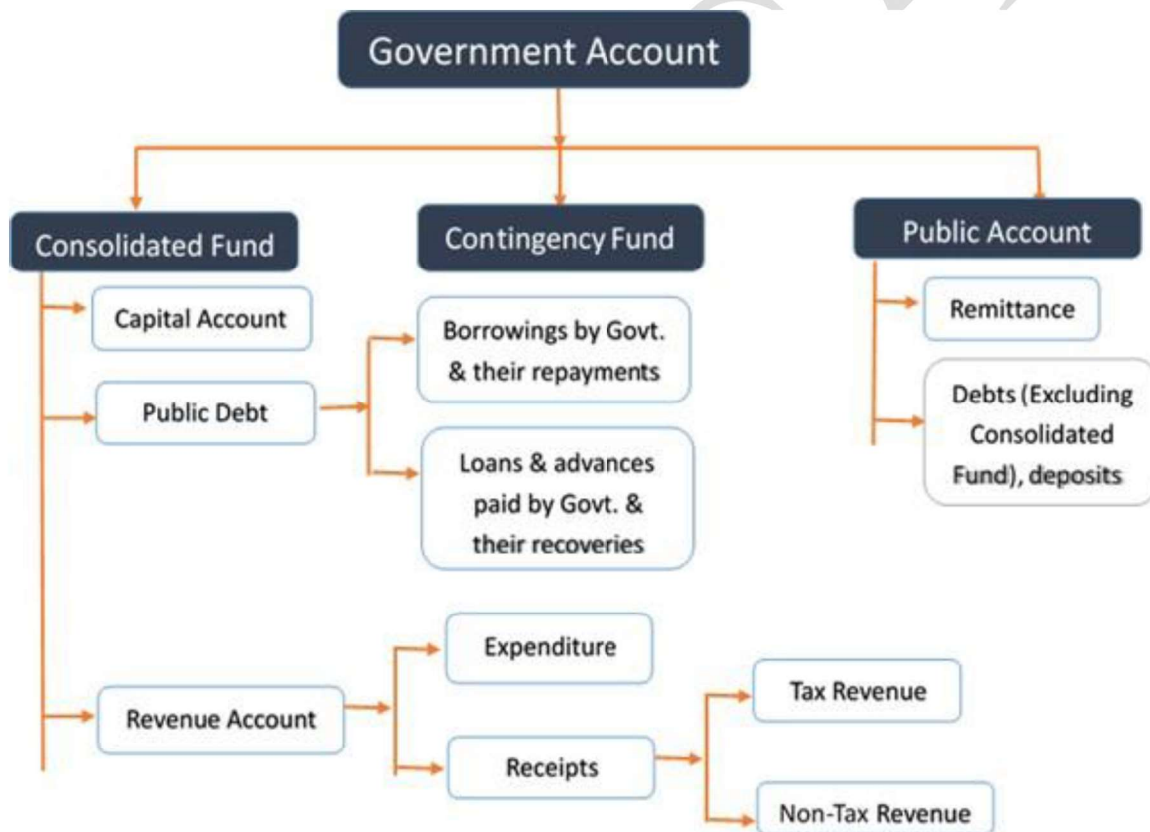
The Public Account is constituted under Clause 2 of Article 267 of the Indian Constitution, which says –

“The transactions relate to debt other than those included in the Consolidated Fund of India. The transactions under Debt, Deposits and Advances in this part are those in respect of which Government incurs a liability to repay the money received or has a claim to recover the amounts paid. The transactions relating to „Remittance” and ‘Suspense’ shall embrace all adjusting heads. The initial debits or credits to these heads will be cleared eventually by corresponding receipts or payments. The receipts under Public Account do not constitute normal receipts of Government. Parliamentary authorization for payments from the Public Account is therefore not required.”

Similarly, all 29 states of India has the same structure as described above.

General Structure of Government Accounts

The general structure of the government accounts is illustrated below –



Compilation of Accounts

Treasury and other government departments, initially compile their receipt and payment accounts on monthly basis for central government and state government separately and then send to respective Accountant General of India.

Collection of revenue and disbursement are directly made by Railway, Defense, Post & Telegraphs, Forest, and public departments and lump sum payments are made by treasury through the departmental officers. Detail of accounts on monthly basis is maintained by the departmental Accounts officers.

Monthly accounts submitted by the treasury and account officer are compiled by the Accountant General, for the central government as a whole and for each state separately. The compiled report shows progressive figure of each month from 1st April to 31st March of every year. Complied accounts along with appropriation accounts are submitted by Comptroller and Auditor General of India to the President of India, to the Governor of each state, or to the Administrator of the Union Territory accordingly.

Principles of Government Accounting

- Charges or expenditure on a new project like constructions, new equipment, plant & machinery installation, maintenance, improvement, and service should be allocated to the capital account as per the rule made by competent authority.
- Working charges of the project should be allocated to the revenue account.
- In case of renewal and replacement and cost of the genuine replacement should be charged to capital account.
- In case of damage due to extraordinary calamities, charged should be debited from the capital account or revenue account or from both. However, it will be determined by the government according to the case and circumstances.
- Capital receipts during the new project should be credited to the capital account to reduce the capital expenditure of the project.

What is Green Accounting?

Green Accounting, also known as **Environmental Accounting**, is a modern accounting system that includes the **costs and benefits of environmental impacts** into a company's financial statements.

It extends traditional accounting by measuring how business operations affect the **natural environment**, and how environmental policies and activities affect the **financial performance** of an organisation.

In simple terms,

Green Accounting = Traditional Accounting + Environmental Costs + Environmental Benefits

It helps businesses track how much they spend on environmental protection, how their activities damage the environment, and how they can improve sustainability.

Green Accounting



Green accounting, also known as environmental accounting, is a modern method of evaluating financial and economic performance by incorporating environmental and social considerations into traditional accounting systems. It seeks to present a more holistic and sustainable view of economic activities by recognizing the ecological impact of business operations.

The concept evolved significantly during the mid-20th century, particularly in the 1960s and 1970s, when environmental movements worldwide highlighted issues such as rising pollution, loss of biodiversity, and depletion of natural resources. This heightened global awareness created a need for accounting methods that could reflect not only financial outcomes but also the environmental costs associated with economic development.

Initially, green accounting lacked uniform procedures and widely accepted measurement techniques. Over time, as governments, industries, and international bodies recognized the importance of environmental reporting, efforts were made to develop consistent frameworks. These collaborative efforts eventually led to the establishment of structured standards such as the **Global Reporting Initiative (GRI)** and the **Sustainability Accounting Standards Board (SASB)**. These frameworks help organizations measure, disclose, and manage their environmental performance in a systematic and comparable manner.

Features of Green Accounting

Green accounting, also referred to as environmental or sustainable accounting, includes several unique characteristics that differentiate it from conventional accounting systems. These features highlight its emphasis on incorporating ecological and social dimensions into financial evaluation. The major features are:

1. Policy-Driven Approach

Green accounting supports the development and assessment of environmental policies. Governments and regulatory bodies use this data to design effective strategies for sustainability, including pollution control measures, conservation programs, and emission-reduction targets.

2. Emphasis on Transparency and Disclosure

A core aspect of green accounting is its commitment to open reporting. Organisations are encouraged to publish sustainability or environmental reports that share information about their ecological footprint and social initiatives, ensuring accountability to stakeholders.

3. Alignment with International Standards

To promote uniformity and comparability across organisations and countries, green accounting follows established global frameworks. Standards issued by bodies such as the **Global Reporting Initiative (GRI)** and the **Sustainability Accounting Standards Board (SASB)** guide how environmental and social data should be recorded and presented.

4. Environmental and Social Performance Measurement

Green accounting provides quantitative and qualitative tools to evaluate an organisation's environmental impact. It includes indicators related to:

- Carbon emissions
- Energy use
- Water consumption
- Waste production
- Social and community impact

These metrics help organisations track progress toward sustainability goals.

5. Focus on Stakeholder Participation

This accounting approach acknowledges the role of diverse stakeholder groups—such as investors, employees, customers, and local communities. Their involvement in sustainability reporting and decision-making increases trust, improves communication, and supports responsible environmental behaviour.

Short Example of Green Accounting

A textile manufacturing company installs a wastewater treatment plant to reduce pollution. The cost of installing and operating the plant is recorded as an environmental expense. The company also measures the reduction in water pollution and the savings from recycling treated water. This information is included in its sustainability report, helping the company improve its environmental performance and comply with regulations.

Feature	Traditional (Conventional) Accounting	Green Accounting (Environmental/Sustainability Accounting)
Primary Focus	Financial data, money transactions, and the impact of transactions on profit.	The bigger picture of the business, integrating environmental and social aspects into financial operations.
View of the Company	Provides a narrow picture of the company's financial performance. It is organization-centric.	Provides a more comprehensive view by measuring the impact of human activity on the earth's ecological systems and resources.
Guiding Principles	Centers on maximizing financial returns.	Deals with the three most important factors: people, profitability, and the planet.
Goal	To record financial data and measure profit or loss.	To enable businesses to make decisions that maximize financial returns while aligning with responsible and sustainable business practices.