IARE '24 DISCORD TEAM

II-II

BEFA MODULE 1 SOLUTIONS

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INTRODUCTION AND DEMAND ANALYSIS

BEFA MODULE 1

PART A

1. Explain how managerial economics has its roots in Economics and Management. Does it have any links with other subjects? Support your answer

Managerial Economics is economics applied to decision making. It is a special branch of economics, bridging the gap between pure economic theory and managerial practice. Managerial Economics has two main branches — micro-economics and macro-economics.

Micro-economics:

‘Micro’ means small. It studies the behaviour of the individual units and small groups of units. It is a study of particular firms, particular households, individual prices, wages, incomes, individual industries and particular commodities. Thus micro-economics gives a microscopic view of the economy.

The roots of managerial economics spring from micro-economic theory. In price theory, demand concepts, elasticity of demand, marginal cost, marginal revenue, the short and long runs and theories of market structure are sources of the elements of micro-economics which managerial economics draws upon. It makes use of well known models in price theory such as the model for monopoly price, the kinked demand theory and the model of price discrimination.

Macroeconomics:

Macro-economies is also related to managerial economics. The environment in which a business operates, fluctuations in national income, changes in fiscal and monetary measures and variations in the level of business activity have relevance to business decisions. The understanding of the overall operation of the economic system is very useful to the managerial economist in the formulation of his policies.

Managerial economics have links with other subjects like:

- **Statistics** - Statistics is important to managerial economics. It provides the basis for the empirical testing of theory. It provides the individual firm with measures of appropriate functional relationships involved in decision making. Statistics is a very useful science for business executives because a business runs on estimates and probabilities.
- **Accounting** - Managerial economics is closely related to accounting. It is recording the financial operation of a business firm. A business is started with the main aim of earning profit. Capital is invested / employed for purchasing properties such as building, furniture, etc and for meeting the current expenses of the business.
- **Mathematics** - The mathematical concepts used by the managerial economists are the logarithms and exponential vectors and determinants, input-out tables. Operations research which is closely related to managerial economics is mathematical in character.
- **Operations Research**, etc.

2. How do you explain the relation of managerial economics with other subjects? Explain.

Managerial Economics and Theory of Decision Making:

The theory of decision making is relatively a new subject that has a significance for managerial economics. In the process of management such as planning, organising, leading and controlling, decision making is always essential. Economists are interested in the efficient use of scarce resources hence they are naturally interested in business decision problems and they apply economics in management of business problems. Hence managerial economics is economics applied in decision making.

Managerial Economics and Statistics:

Statistics is important to managerial economics. It provides the basis for the empirical testing of theory. It provides the individual firm with measures of appropriate functional relationships involved in decision making. Statistics is a very useful science for business executives because a business runs on estimates and probabilities.

Statistical tools are widely used in the solution of managerial problems. For eg. sampling is very useful in data collection. Managerial economics makes use of correlation and multiple regression in business problems involving some kind of cause and effect relationship.

Managerial Economics and Accounting:

Managerial economics is closely related to accounting. It is recording the financial operation of a business firm. A business is started with the main aim of earning profit. Capital is invested / employed for purchasing properties such as building, furniture, etc and for meeting the current expenses of the business.

There are three classes of accounts:

(i) Personal account,

(ii) Property accounts, and

(iii) Nominal accounts.

Management accounting provides the accounting data for taking business decisions. The accounting techniques are very essential for the success of the firm because profit maximisation is the major objective of the firm.

Managerial Economics and Mathematics:

Mathematics is another important subject closely related to managerial economics. For the derivation and exposition of economic analysis, we require a set of mathematical tools. The important branches of mathematics generally used by a managerial economist are geometry, algebra and calculus.

The mathematical concepts used by the managerial economists are the logarithms and exponential, vectors and determinants, input-out tables. Operations research which is closely related to managerial economics is mathematical in character.

3. Explain the basic concepts of managerial economics

There are six basic principles of managerial economics. They are:

1. **The Incremental Concept:**

The incremental concept is probably the most important concept in economics and is certainly the most frequently used in Managerial Economics. Incremental concept is closely related to the marginal cost and marginal revenues of economic theory.

The two major concepts in this analysis are incremental cost and incremental revenue. Incremental cost denotes change in total cost, whereas incremental revenue means change in total revenue resulting from a decision of the firm.

2. Concept of Time Perspective:

The time perspective concept states that the decision maker must give due consideration both to the short run and long run effects of his decisions. The economic concepts of the long run and the short run have become part of everyday language. Managerial economists are also concerned with the short run and long run effects of decisions on revenues as well as costs. The main problem in decision making is to establish the right balance between long run and short run.

3. The Opportunity Cost Concept:

Both micro and macro economics make abundant use of the fundamental concept of opportunity cost. In everyday life, we apply the notion of opportunity cost even if we are unable to articulate its significance. In Managerial Economics, the opportunity cost concept is useful in decisions involving a choice between different alternative courses of action.

In managerial decision making, the concept of opportunity cost occupies an important place. The economic significance of opportunity cost is as follows:

1. It helps in determining relative prices of different goods.
2. It helps in determining normal remuneration to a factor of production.
3. It helps in proper allocation of factor resources.

4. Equi-Marginal Concept:

- The equimarginal principle states that consumers will choose a combination of goods to maximise their total utility. This will occur when

$$\frac{\text{Marginal Utility of A}}{\text{Price of A}} = \frac{\text{Marginal utility of B}}{\text{Price of B}}$$

- The consumer will consider both the marginal utility MU of goods and the price.
- In effect, the consumer is evaluating the MU/price.
- This is known as the marginal utility of expenditure on each item of goods.

5. Discounting Concept:

- Discounting principle explains about the comparison of money value in present and future time.

  Example:

  If a person is given the option to take 100/- as a gift for today.

  or

  If a person is given the option to take 100/- as a gift after one month.

- Normally a person chooses the first offer only. Why because “today rupee is having more worth than tomorrows rupee” and the future is uncertain

6. Risk and Uncertainty:

Managerial decisions are actions of today which bear fruits in the future which are unforeseen. Future is uncertain and involves risk. The uncertainty is due to unpredictable changes in the business cycle, structure of the economy and government policies.

This means that the management must assume the risk of making decisions for their institution in uncertain and unknown economic conditions in the future

4. Distinguish between substitutes and complements with examples. How does this distinction of goods help in business decision making?

Basis	Substitute Goods	Complementary Goods
Definition	Substitute goods refer to those goods that can be consumed in place of each other.	Complementary goods refer to those goods that are consumed together.
Relationship with Price	In the case of substitute goods, if the price of one good increases, the consumer shifts his demand to the other (substitute) good i.e. rise in the price of one good results in a rise in the demand of the other good and vice-versa.	In the case of complementary goods, if the price of one good increases then a consumer reduces his demand for the complementary good as well, i.e. a rise in the price of one good results in a fall in demand of the other good and vice-versa.
Examples	Tea and coffee, Colgate and pepsodent, cello pens and Reynolds pen	Tea and sugar, ink pen and ink, printer and paper

5. “The purpose of managerial economics is to show economic analysis can be used in formulating business policies, - Joel Dean. Interpret the meaning of the statement.

As pointed out by Joel Dean "The purpose of managerial economics is to show how economic analysis can be used in formulating business policies". The basic objective of managerial economics is to analyse economic problems of business and suggest solutions and help the managers in decision-making. The objectives of business economics are outlined as below:

- To integrate economic theory with business practice.
- To apply economic concepts: and principles to solve business problems.
- To employ the most modern instruments and tools to solve business problems.
- To allocate the scarce resources in the optimal manner.
- To make overall development of a firm.
- To help achieve other objectives of a firm like attaining industry leadership, expansion of the market share etc.
- To minimise risk and uncertainty
- To help in demand and sales forecasting.
- To help in the operation of a firm by helping in planning, organising, controlling etc.
- To help in formulating business policies.
- To help in profit maximisation.

6. Define Managerial Economics and point out its chief characteristics. How is Macro-Economic useful to Managerial Economics?

Managerial economics is a stream of management studies that emphasises primarily solving business problems and decision-making by applying the theories and principles of microeconomics and macroeconomics. It is a specialised stream dealing with an organisation's internal issues using various economic theories.

Chief Characteristics of Managerial Economics/Nature

– Managerial economics is micro-economic in character as it concentrates only on the study of the firm and not on the working of the economy.
– Managerial economics takes the help of macro-economics to understand and adjust to the environment in which the firm operates.
– Managerial economics is normative rather than positive in character.
– It is both conceptual (theory) and metrical (quantitative techniques).
– The contents of managerial economics are based mainly on the "theory-of firm'.

7. Explain what the economics is and also elaborate its linkage with other subjects

Economics is a social science concerned with the production, distribution, and consumption of goods and services. It studies how individuals, businesses, governments, and nations make choices about how to allocate resources. This view makes economics an academic relative of political science, sociology, psychology and anthropology. All of these disciplines study the behaviour of human beings individually and in groups. Economics can also be linked with the following:

- Theory of Decision Making
- Operations Research
- Research
- Accounting
- Mathematics

8. What is meant by Demand? Everyone desires an ambassador car. Does this mean that the demand for ambassador cars is large?

“Demand in economics means demand backed up by enough money to pay for the goods demanded”. This means that the demand becomes effective only if it is backed by the purchasing power. In addition to this there must be willingness to buy a commodity.

- Demand in economics is the consumer's desire and ability to purchase a good or service.
- Demand can mean either market demand for a specific good or aggregate demand for th koe total of all goods in an economy.
- Demand, along with supply, determines the actual prices of goods and the volume of goods that changes hands in a market.

The demand for an Ambassador car is largely due to the consumers’ desire to own a car. But the number of consumers who are really willing to spend their money to own a car are very less, which is why this desire for owning an Ambassador car is not Demand.

9. ‘Statistical and mathematical techniques complicate the process of demand forecasting.’ Do you agree? Support your answer

The use of mathematics is significant for managerial economics in view of its profit maximization goal long with optional use of resources. The major problem of the firm is how to minimize cost, how to maximize profit or how to optimize sales. Mathematical concepts and techniques are widely used in economic logic to solve these problems. Also mathematical methods help to estimate and predict the economic factors for decision making and forward planning. Mathematical symbols are more convenient to handle and understand various concepts like incremental cost, elasticity of demand etc., Geometry, Algebra and calculus.

Managerial Economics needs the tools of statistics in more than one way. A successful businessman must correctly estimate the demand for his product. He should be able to analyses the impact of variations in tastes. Fashion and changes in income on demand only then he can adjust his output. Statistical methods provide and sure base for decision-making. Thus statistical tools are used in collecting data and analyzing them to help in the decision making process. Statistical tools like the theory of probability and forecasting techniques help the firm to predict the future course of events.

10. What is meant by elasticity of demand? Explain giving a suitable illustration, how elasticity of demand determines the price policy of a firm.

Elasticity of demand explains the relationship between a change in price and consequent change in amount demanded. Elasticity of demand shows the extent of change in quantity demanded to a change in price.
Price elasticity of demand is the ratio of the percentage change in quantity demanded of a product to the percentage change in price. Economists employ it to understand how supply and demand change when a product's price changes. It can be denoted as below:

$$Ed = \frac{\text{\% Change in Quantity Demanded}}{\text{\% Change in Price}}$$

$$Ed = \frac{\%\Delta Q}{\%\Delta P} = \frac{(Q2-Q1)/(Q1+Q2)}{(P2-P1)/(P1+P2)}$$

Woollen socks, for example, are not an overly complicated product to manufacture. Production requires few raw materials, and the item is lightweight and easy to ship. Therefore, if a company knows it can stimulate a 30% increase in sales by reducing the price by 20%, it is likely to increase production to reap the maximum profit. However, a small business that sells handmade furniture may have a harder time ramping up production or dealing with increased shipping and delivery activity, so an increase in supply may not be feasible, regardless of price elasticity. This is how elasticity of demand determines the price policy of a firm.

PART B

1. How Micro economics differ from Macro Economics? Explain in detail the nature and scope of managerial economics?

Economics is divided into two categories: microeconomics and macroeconomics. Microeconomics is the study of individuals and business decisions, while macroeconomics looks at the decisions of countries and governments. Though these two branches of economics appear different, they are actually interdependent and complement one another. Many overlapping issues exist between the two fields.

Microeconomics: Microeconomics is the study of decisions made by people and businesses regarding the allocation of resources, and prices at which they trade goods and services. It considers taxes, regulations, and government legislation.

Macroeconomics: Macroeconomics, on the other hand, studies the behaviour of a country and how its policies impact the economy as a whole. It analyses entire industries and economies, rather than individuals or specific companies, which is why it’s a top-down approach. It tries to answer questions such as “What should the rate of inflation be?” or “What stimulates economic growth?”

Nature of Managerial Economics: The primary function of a management executive in a business organisation is decision making and forward planning.

Decision making and forward planning go hand in hand with each other. Decision making means the process of selecting one action from two or more alternative courses of action. Forward planning means establishing plans for the future to carry out the decision so taken.

1. Close to microeconomics

2. Operates against the backdrop of macroeconomics

3. Normative statements

4. Applied in nature

5 Offers scope to evaluate each alternative

6 Interdisciplinary

7 Assumptions and limitations: Every concept and theory of managerial economics is based on certain assumption and as such their validity is not universal.

Scope of Managerial Economics:

The scope of managerial economics refers to its area of study. Managerial economics, Provides management with a strategic planning tool that can be used to get a clear perspective of the way the business world works and what can be done to maintain profitability in an ever-changing environment

- (a) Theory of demand and Demand Forecasting
- (b) Pricing and Competitive strategy
- (c) Production cost analysis
- (d) Resource allocation
- (e) Profit analysis
- (f) Capital or Investment analysis
- (g) Strategic planning

2. “Managerial Economics” bridges the gap between economic theory and business practice Explain.

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.

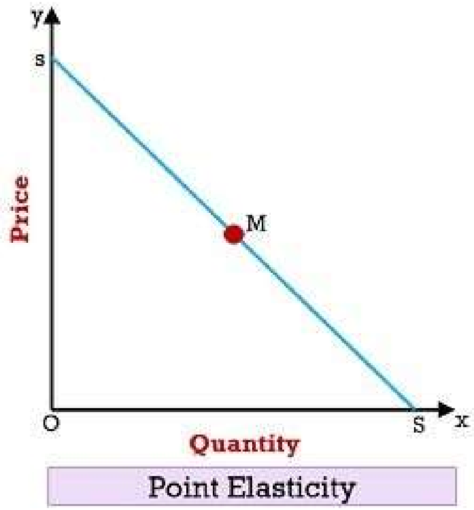
“Managerial Economics is the integration of economic theory with business practice for the purpose of facilitating decision making and forward planning by management”

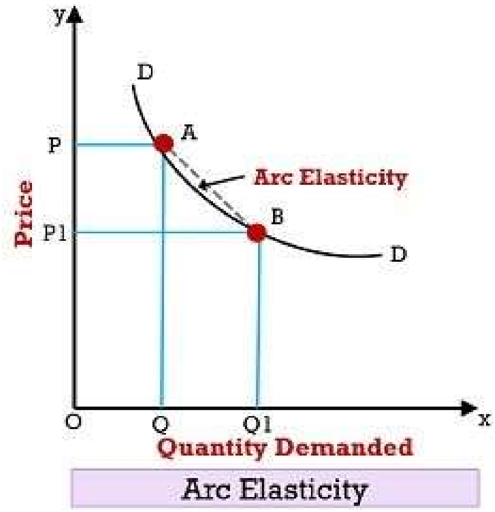
Managerial economics is the discipline, which deals with the application of economic theory to business management. Managerial Economics thus lies on the margin between economics and business management and serves as the bridge between the two disciplines. It is widely known that there exists a gap between theory and practise in all walks of life, more so in the world in economic thinking and behaviour. A theory which appears logically sound may not be directly applicable in practice. For example, when there are economies of scale, it seems theoretically sound that kiif inputs are doubled, output will be, more or less doubled and if the inputs are tripled, output will be more. This theoretical conclusion may not hold well in practice.

3. Explain how managerial economics has its roots in Economics and Management. Does it have any link with other disciplines? Support your answer.

Refer Part-A 1st question solution

4. Explain the concept of Arc & point Elasticity of Demand. Illustrate your answer with a graph.





Elasticity is the responsiveness of the quantity demanded, as a result of a change in price. In other words, it is the rate of change in the quantity demanded with respect to the rate of change in price.

We use the point elasticity method when the changes in price and quantity demanded are very small. Hence, it is easy to calculate the elasticity at a point. And because changes are quite little, one can take the original price and quantity, as a base. But, what to do when the change is substantial? One can neither take the initial price nor the final price as a base. In such a case we use the arc elasticity method, wherein we use an average of both initial and final price.

BASIS FOR COMPARISON	POINT ELASTICITY	ARC ELASTICITY
Meaning	Point Elasticity measures elasticity at a finite point of the demand curve.	Arc Elasticity measures elasticity at the central point of an arc between a pair of two points on the demand curve.

Introduced by	Marshall in 1890	Dalton in 1920
Measured when	Change is infinitesimally small	Change is finite (Discrete)
Uses	Derivative of supply function	Difference quotient
Percentage formula	Apply	Does not apply

5. Define demand and write the exceptions of demand.

Demand is an economic principle referring to a consumer's desire to purchase goods and services and willingness to pay a price for a specific good or service. This means that the demand becomes effective only if it is backed by the purchasing power. In addition to this there must be willingness to buy a commodity. Holding all other factors constant, an increase in the price of a good or service will decrease the quantity demanded, and vice versa. Market demand is the total quantity demanded across all consumers in a market for a given good.

6. What do you understand about the shift in demand curve? Enumerate three possible reasons for such a shift?

In economics, a demand curve is a graph depicting the relationship between the price of a certain commodity (the y-axis. and the quantity of that commodity that is demanded at that price (the x-axis.. Demand curves can be used either for the price-quantity relationship for an individual consumer (an individual demand curve., or for all consumers in a particular market (a market demand curve..

Movement "along the demand curve" refers to how the quantity demanded changes when the price changes. A "shift of the demand curve" occurs when even if the price remains constant the quantity demanded changes because of some other factor such as advertising or higher quality that is not on one of the axes of the diagram, resulting in a shift of the entire demand curve rather than just a change in the current price and quantity.
The shift of a demand curve takes place when there is a change in any non-price determinant of demand, resulting in a new demand curve. Non-price determinants of demand are those things that will cause demand to change even if prices remain the same — in other words, the things whose changes might cause a consumer to buy more or less of a good even if the good's own price remained unchanged.

Some of the more important factors are the prices of related goods (both substitutes and complements., income, population, and expectations. However, demand is the willingness and ability of a consumer to purchase a good under the prevailing circumstances; so, any circumstance that affects the consumer's willingness or ability to buy the good or service in question can be a non-price determinant of demand. As an example, weather could be a factor in the demand for beer at a baseball game.
Three factors that can cause the market demand curve to shift:

- a change in the number of consumers,

- a change in the distribution of tastes among consumers,
- a change in the distribution of income among consumers with different tastes.

7. What is demand and list out the reasons for which the demand exists like that?

Demand in common parlance means the desire for an object. But in economics demand is something more than this. According to Stonier and Hague, “Demand in economics means demand backed up by enough money to pay for the goods demanded”. This means that the demand becomes effective only if it is backed by the purchasing power. In addition to this there must be willingness to buy a commodity.
Thus demand in economics means the desire backed by the willingness to buy a commodity and the purchasing power to pay. In the words of “Benham” “The demand for anything at a given price is the amount of it which will be bought per unit of time at that Price”. (Thus demand is always at a price for a definite quantity at a specified time.. Thus demand has three essentials – price,quantity demanded and time.

We defined demand as the amount of some product a consumer is willing and able to purchase at each price. That suggests at least two factors in addition to price that affect demand.

- Willingness to purchase suggests a desire, based on what economists call tastes and preferences. If you neither need nor want something, you will not buy it. Ability to purchase suggests that income is important. Professors are usually able to afford better housing and transportation than students because they have more income.
- Prices of related goods can affect demand also. If you need a new car, the price of a Honda may affect your demand for a Ford. Finally, the size or composition of the population can affect demand. The more children a

family has, the greater their demand for clothing. The more driving-age children a family has, the greater their demand for car insurance, and the less for diapers and baby formula.

8. What are the needs for Demand forecasting? Explain the various steps involved in demand forecasting?

Demand forecasting refers to an estimate of future demand for the product. It is an objective assessment of the future course of demand. In recent times, forecasting plays an important role in business decision-making. Demand forecasting has an important influence on production planning. It is essential for a firm to produce the required quantities at the right time.

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

Types of demand Forecasting : Based on the time span and planning requirements of business firms, demand forecasting can be classified in to :

1. Short-term demand forecasting
2. Long – term demand forecasting

Steps in demand forecasting:

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

1. Survey Method:

   Under this method, information about the desires of the consumer and opinion of exports are collected by interviewing them. Survey method can be divided into four types:

    a. Opinion survey method
    b. Expert opinion method
    c. Delphi Method
    d. Consumers interview method

2. Statistical Methods:
   Statistical method is used for long run forecasting. In this method, statistical and mathematical techniques are used to forecast demand. This method relies on post data.
    a. Time series analysis or trend projection methods
    b. Barometric Technique
    c. Regression and correlation method

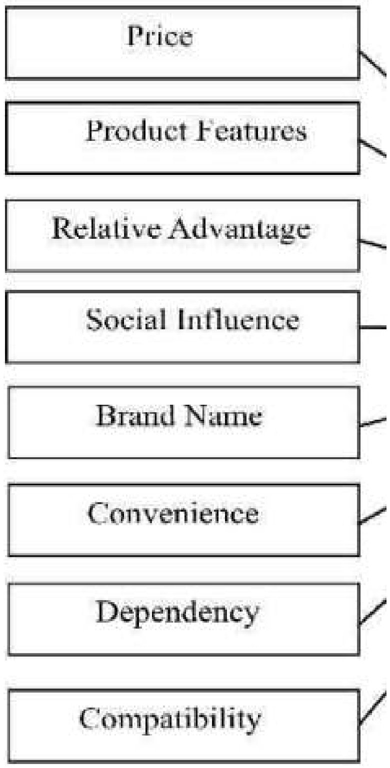
For detailed answer, refer Lecture Notes page 31

9. Illustrate the 'Law of demand'. What are the various factors that determine the demand for 'Mobile Phones'?

The law of demand is one of the most fundamental concepts in economics. It works with the law of supply to explain how market economies allocate resources and determine the prices of goods and services that we observe in everyday transactions.

The law of demand states that the quantity purchased varies inversely with price. In other words, the higher the price, the lower the quantity demanded. This occurs because of diminishing marginal utility. That is, consumers use the first units of an economic good they purchase to serve their most urgent needs first, and then they use each additional unit of the good to serve successively lower-valued ends.

the various factors that determine the demand for 'Mobile Phones' are:



10. Let initial P= 10 and Q = 20 and price declines to 9 and quantity demand increases to 23. Find Price elasticity of demand.

10) $P = 10,\ Q = 20,\ dP = -1,\ dQ = +3$

$$PED = \frac{\dfrac{dQ}{(Q_2+Q_1)/2}}{\dfrac{dP}{(P_2+P_1)/2}}$$

$$= \frac{\dfrac{3}{43/2}}{\dfrac{-1}{19/2}} = \frac{3}{\frac{43}{2}} \times \frac{19/2}{-1}$$

$PED = -\underline{1.3256}$

<u>ELASTIC</u>

%change in quantity= (Q2-Q1./[(Q2+Q1./2] = 13.95
%change in price= (p2-p1./[(p2+p1./2] = -10.52

$$\textit{Price Elasticity of Demand} \quad \frac{\%\ \textit{change in quantity}}{\%\ \textit{change in price}}$$

Price elasticity = 1.32 [Elastic]

11. What are the possible approaches to forecasting the demand for the existing products? Illustrate those methods in detail

Same as Next Question

12. What are the possible approaches to forecasting the demand for new products? Illustrate those methods in detail

Demand forecasting is the scientific tool to predict the likely demand of a product in the future. The demand of new product can be forecasted by any one of the following techniques:

- Substitute Approach
  It is based on the assumption that a new product will be analysed as a substitute of an existing product. In this method, the demand of substitute products is analysed and on the basis of such analysis (or survey) forecasts are made for the new product to be introduced in the market.
- Evolutionary Approach
  This method of sales forecasting is based on the assumption that the new product will be considered an improvement over existing products. It is further assumed that the new product can follow some life-cycles as of existing products. The sales of existing products are analysed and

efforts are made to forecast the sales of the new product of the enterprise on this basis.

- Buyers or consumers view

  In this method, the potential buyers of the product are contacted and efforts are made to know their opinions regarding the new product. Efforts are also made to guess the quantity to be purchased by these consumers. Sales forecasts of the new product are based on these opinions and estimates.
- Expert's opinion

  This approach of sales forecasting of new products is based on the opinion of experts in the field of marketing, who know the needs, desires, tastes and preferences of customers. Experts are contacted and their opinions are collected regarding the utilities and possible demand of the product. Sales forecasts are prepared on the basis of the opinion of these experts.
- Sales experience approach (or Market test method)

  In this method, the new product is offered for sale in a sample market for a fixed period. The results of the sales of the product are considered to be the base of forecasting the demand for the new product. The results of sales of the product in these segments are collected and deeply analysed.

13. Define Demand and outline various determinants of demand.

Demand in terms of economics may be explained as the consumers willingness and ability to purchase or consume a given item/good. The determinants of demand are factors that cause fluctuations in the economic demand for a product or a service.

Some of the important determinants of demand are as follows,

- Price of the Product

  People use price as a parameter to make decisions if all other factors remain constant or equal. According to the law of demand, this implies an increase in demand follows a reduction in price and a decrease in demand follows an increase in the price of similar goods.

- Income of the Consumers
  Rising incomes lead to a rise in the number of goods demanded by consumers. Similarly, a drop in income is accompanied by reduced consumption levels. This relationship between income and demand is not linear in nature. Marginal utility determines the proportion of change in the demand levels.
- Prices of related goods or services
  - Complementary products – An increase in the price of one product will cause a decrease in the quantity demanded of a complementary product. Example: Rise in the price of bread will reduce the demand for butter. This arises because the products are complementary in nature.
  - Substitute Product – An increase in the price of one product will cause an increase in the demand for a substitute product. Example: Rise in the price of tea will increase the demand for coffee and decrease the demand for tea.
- Consumer Expectations
  Expectations of a higher income or expecting an increase in prices of goods will lead to an increase in the quantity demanded. Similarly, expectations of a reduced income or a lowering in prices of goods will decrease the quantity demanded.
- Number of Buyers in the Market
  The number of buyers has a major effect on the total or net demand. As the number increases, the demand rises. Furthermore, this is true irrespective of changes in the price of commodities.

14. Define Elasticity of demand? How is the Advertising elasticity of demand measured? Explain its role in business?

Elasticity of demand refers to the degree of change in demand when there is a change in another economic factor, such as price or income. Advertising elasticity of demand (AED) is a measure of a market's sensitivity to increases or decreases in advertising saturation.
Advertising elasticity is a measure of an advertising campaign's effectiveness in generating new sales. It is calculated by dividing the percentage change in the quantity demanded by the percentage change in advertising expenditures. A positive advertising elasticity indicates that an increase in advertising leads to a rise in demand for the advertised goods or services.

15. Managerial Economics is the study of allocation of resources available to a firm or other unit of management among the activities of that unit explains?

- Managerial Economics assists the managers of a firm in a rational solution of obstacles faced in the firm's activities.
- It makes use of economic theory and concepts. It helps in formulating logical managerial decisions.
- The key of Managerial Economics is the microeconomic theory of the firm. It lessens the gap between economics in theory and economics in practice.
- It enables the business executive to assume and analyse things. Every firm tries to get satisfactory profit even though economics emphasises maximising profit.
- Hence, it becomes necessary to redesign economic ideas to the practical world. This function is being done by managerial economics.

16. "Managerial economics bridges the gap between economic theory and business practice," Examine the statement.

Same as 2nd Question

17. How does demand forecasting methods for new products vary from those for established products? Explain.

Similar to the 8th Question.

18. Explain the nature of problems studies in managerial economics. What is the importance of the study of such problems in business management?

The scope of managerial economics covers two areas of decision making.

1. Operational or Internal issues
2. Environmental or External issues

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

(a) Theory of demand and Demand Forecasting
(b) Pricing and Competitive strategy
(c) Production cost analysis
(d) Resource allocation
(e) Profit analysis
(f) Capital or Investment analysis
(g) Strategic planning

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

(a) The type of economic system in the country.
(b) The general trends in production, employment, income, prices, saving and investment.
(c) Trends in the working of financial institutions like banks, financial corporations, insurance companies

(d) Magnitude and trends in foreign trade;

(e) Trends in labour and capital markets;

(f) Government's economic policies viz. industrial policy monetary policy, fiscal policy,price policy etc.

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

19. Explain the differences between Individual and Market demand schedules

Individual Demand	Market Demand
It refers to the demand for a product by a single consumer.	It refers to the demand for a product by all consumers in the market.
The demand curve for individual demand is relatively steeper.	The demand curve for market demand is relatively flatter.
It represents various quantities of a particular commodity that a consumer (single buyer) is willing to purchase at different possible prices.	It represents various quantities of a particular commodity that all consumers in the market are willing to purchase at different possible prices.

20. Explain how you measure elasticity of demand. Illustrate How do you interpret the different types of elasticity?

Elasticity of Demand, or Demand Elasticity, is the measure of change in quantity demanded of a product in response to a change in any of the market variables, like price, income etc. It measures the shift in demand when other economic factors change. In other words, the elasticity of demand is the percentage change in quantity demanded divided by the percentage change in another economic variable.

On the basis of different factors affecting the quantity demanded for a product, elasticity of demand is categorised into mainly three categories:

- Price Elasticity of Demand (PED)
  PED = % Change in Quantity Demanded % / Change in Price
- Cross Elasticity of Demand (XED)
  XED = (% Change in Quantity Demanded for one good (X)%) / (Change in Price of another Good (Y))
- Income Elasticity of Demand (YED).
  YED = % Change in Quantity Demanded% / Change in Income

Question Bank Link

IARE '24 DISCORD TEAM

II-II

BEFA MODULE 2 SOLUTIONS

SHAIKH ADNAN • NIDHI • UJJWAL

PRODUCTION AND COST ANALYSIS

MODULE II

PRODUCTION AND COST ANALYSIS

PART-A

1. Which of the following statement best describe the general form of a production function?

(a) It is purely technological relationship between quantities of input and quantities of output.

(b) It represent the technology of an organization/sector of an economy.

(c) Prices of inputs or of the output do not enter into the production function.

(d) It is flow concept describing the transformation of inputs into output per unit of time.

Ans. all of the options correct.

PRODUCTION FUNCTION: It is an equation that expresses the relationship between the quantities of productive factors (such as labour and capital) used and the amount of product obtained. It states the amount of product that can be obtained from every combination of factors, assuming that the most efficient available methods of production are used.

The production function can thus answer a variety of questions. It can, for example, measure the marginal productivity of a particular factor of production (i.e., the change in output from one additional unit of that factor). It can also be used to determine the cheapest combination of productive factors that can be used to produce a given output.

REASON:

The elements of the production function are the inputs and output of the firm and how the former is

changed into the later. It considers the technology available to the firm and the economic sector it operates in. It does not factor in the prices of inputs or outputs, however the prices of inputs is considered in the iso-cost line and used alongside the production function.

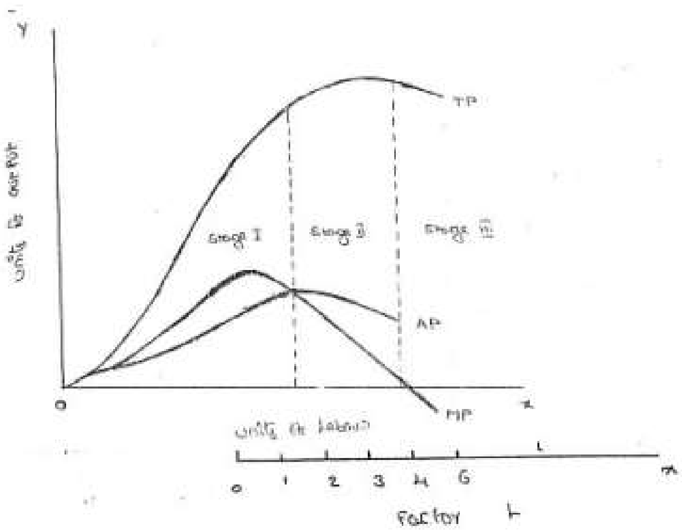
2. Distinguish between short-run production function and long-run production function. The law of diminishing returns is sometimes known as the law of variable proportions. How? Explain the law with example and figure

BASIS FOR COMPARION	SHORT-RUN PRODUCTION FUNCTION	LONG-RUN PRODUCTION FUNCTION
Meaning	Short run production function alludes to the time period, in which at least one factor of production is fixed.	Long run production function connotes the time period, in which all the factors of production are variable.
Law	Law of variable proportion	Law of returns to scale
Scale of production	No change in scale of production.	Change in scale of production.
Factor-ratio	Changes	Does not change.
Entry and Exit	There are barriers to entry and the firms can shut down but cannot fully exit.	Firms are free to enter and exit.

Law of Variable Proportions or Returns to a Factor :
This law exhibits the short-run production functions in which one factor varies while the others are fixed. Also, when you obtain extra output on applying an extra unit of the input, then this output is either equal to or less than the output that you obtain from the previous unit.

The Law of Variable Proportions concerns itself with the way the output changes when you increase the number of units of a variable factor.

Hence, it refers to the effect of the changing factor-ratio on the output. In other words, the law exhibits the relationship between the units of a variable factor and the amount of output in the short-term. This is assuming that all other factors are constant. This relationship is also called returns to a variable factor.



The law states that keeping other factors constant, when you increase the variable factor, then the total product initially increases at an increases rate, then increases at a diminishing rate, and eventually starts declining.

3. Explain the theoretical principles of production to explain the relative substitution of one input for another occurring as a result of the increased price of labour.

Isoquants are the curves, which represent the different combinations of inputs producing a particular quantity of output. Any combination on the isoquant represents the some level of output. For a given output level firm's production become**.Q= f (L, K)** Where 'Q', the units of output is a function of the quantity of two inputs 'L' and 'K'. Thus an isoquant shows all possible combinations of two inputs, which are capable of producing equal or a given level of output. Since each combination yields same output, the producer becomes indifferent towards these combinations.

Assumptions: 1. There are only two factors of production, viz. labour and capital. 2. The two factors can substitute each other up to certain limit 3. The shape of the isoquant depends upon the extent of substitutability of the two inputs. 4. The technology is given over a period. 5. An isoquant may be explained with the help of an arithmetical example.

Combinations	Labour Units	Capital Units	Output Quintals
A	1	10	50
B	2	7	50
C	3	4	50
D	4	4	50
E	5	1	50

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

4. Examine the importance of the law of diminishing returns. What do you think to be its causes and effects?

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

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

For example, a factory employs workers to manufacture its products, and, at some point, the company operates at an optimal level. With all other production factors constant, adding additional workers beyond this optimal level will result in less efficient operations.

CAUSES:

1.Fixed Costs

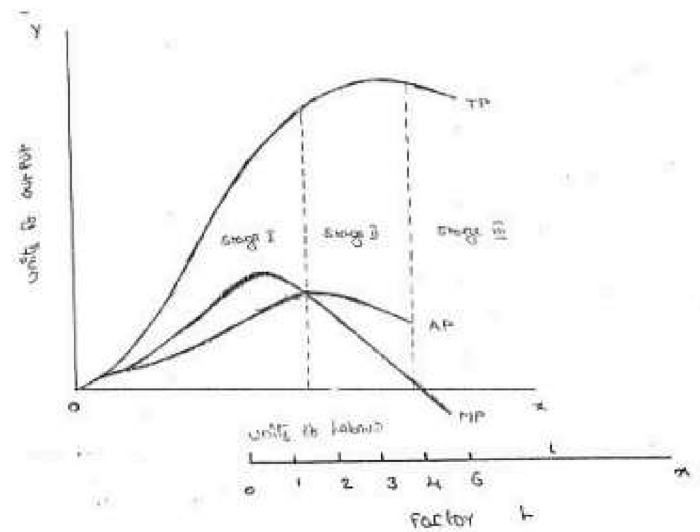
2.Lower levels of Productivity

3.Limited Demand

4.Impact on Working Environment

5.Short-run

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



5. "Technical and/or managerial indivisibilities cause increasing return to scale." Give your opinion.

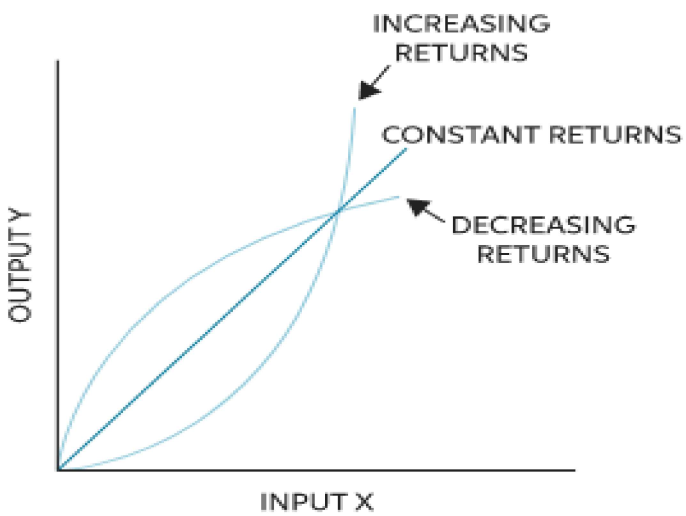
Ans. Returns to scale, in economics, the quantitative change in output of a firm or industry resulting from a proportionate increase in all inputs. If the quantity of output rises by a greater proportion—e.g., if output increases by 2.5 times in response to a doubling of all inputs—the production process is said to exhibit increasing returns to scale. Such economies of scale may occur because greater efficiency is obtained as the firm moves from small- to large-scale operations. Decreasing returns to scale occur if the production process becomes less efficient as production is expanded, as when a firm becomes too large to be managed effectively as a single unit.

There a number of factors responsible for increasing returns to scale. One of them is Technical and/or managerial indivisibilities.

Implies that there are certain inputs, such as machines and human resource, used for the production process are available in a fixed amount. These inputs cannot be divided to suit different level of
production. For example, an organization cannot use the half of the turbine for small scale of production.
Similarly, the organization cannot use half of a manager to achieve small scale of production. Due to this technical and managerial indivisibility, an organization needs to employ the minimum quantity of machines and managers even in case the level of production is much less than their capacity of
producing output. Therefore, when there is increase in inputs, there is exponential increase in the level of output.

6. List out the difference between increasing, decreasing and constant returns to scale with the help of suitable figures only

Ans:



Increasing Returns to Scale: Increasing returns to scale is closely associated with economies of scale (the downward sloping part of the long-run average total cost curve in the previous section). Increasing
returns to scale occurs when a firm increases its inputs, and a more-than-proportionate increase in production results. For example, in year one a firm employs 200 workers, uses 50 machines, and produces 1,000 products. In year two it employs 400 workers, uses 100 machines (inputs doubled), and produces 2,500 products (output more than doubled).

Decreasing Returns to Scale:

Decreasing returns to scale is closely associated with diseconomies of scale (the upward part of the long-run average total curve). Decreasing returns to scale happens when the firm's output rises proportionately less than its inputs rise. For example, in year one, a firm employs 200 workers, uses 50 machines, and produces 1,000 products. In year two it employs 400 workers, uses 100 machines (inputs doubled), and produces 1,500 products (output less than doubled).

When input prices remain constant, decreasing returns to scale results in increasing long-run average costs (diseconomies of scale). An organization may become too big, thus creating too many layers of management, too many departments, and too much red tape. This leads to a lack of communications, inefficiency, delays in decision-making, and inefficient production.

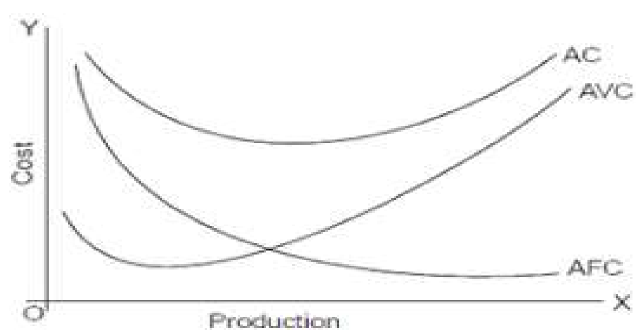
Constant Returns to Scale:

Constant returns to scale occurs when the firm's output rises proportionate to the increase in inputs.

Problem: In the example above, after doubling the inputs in year one, what would output have to be in year two for the firm to experience constant returns to scale?

Solution: 2,000 products. At 2,000 products, the output doubles. Because the inputs double, the increase in production is proportionate. By definition, this equates to constant returns to scale.

7. With the increase in output of the firms, their average total cost and average variable cost curves come closer and closer to each other but never meet. Why?

Ans. 

The difference between average total cost (ATC) and average variable cost (AVC) is average fixed cost (AFC) and average fixed cost can never be constant. Since AFC tends to decline with increase in output, the difference between ATC and AVC must reduce as output increases. So, average total cost and average variable cost never meets.

8. Distinguish between different Classifications of Cost.

Ans. 1] Classification by Nature :
This is the analytical classification of costs. Let us divide as per their natures. So basically there are three broad categories as per this classification, namely Labor Cost, Materials Cost and Expenses. These heads make it easier to classify the costs in a cost sheet. They help ascertain the total cost and determine the cost of the work-in-progress.

1. Material Costs: Material costs are the costs of any materials we use in the production of goods. We
divide these costs further. For example, let's divide material costs into raw material costs, spare parts,
costs of packaging material etc.
2. Labor Costs: Labor costs consists of the salary and wages paid to permanent and temporary
employees in the pursuit of the manufacturing of the goods.
3. Expenses: All other expenses associated with making and selling the goods or services.
2] Classification by Functions :
This is the functional classification of costs. So the classification follows the pattern of basic managerial activities of the organization.
The grouping of costs is according to the broad divisions of functions such as production, administration, selling etc.
Production Costs: All costs concerned with actual manufacturing or construction of the goods

Commercial Costs: Total costs of the operation of an enterprise other than the manufacturing costs. It includes the admin costs, selling and distribution costs etc.

3] Classification by Traceability :

This aspect one of the most important classification of costs, into direct costs and indirect costs. This
classification is based on the degree of traceability to the final product of the firm.

Direct Costs: So these are the costs which are easily identified with a specific cost unit or cost centers.

Some of the most basic examples are the materials used in the manufacturing of a product or the laborinvolved with the production process.

Indirect Costs: These costs are incurred for many purposes, i.e. between many cost centers or units. So we cannot easily identify them to one particular cost center. Take for example the rent of the building or the salary of the manager. We will not be able to accurately determine how to ascertain such costs to a particular cost unit.

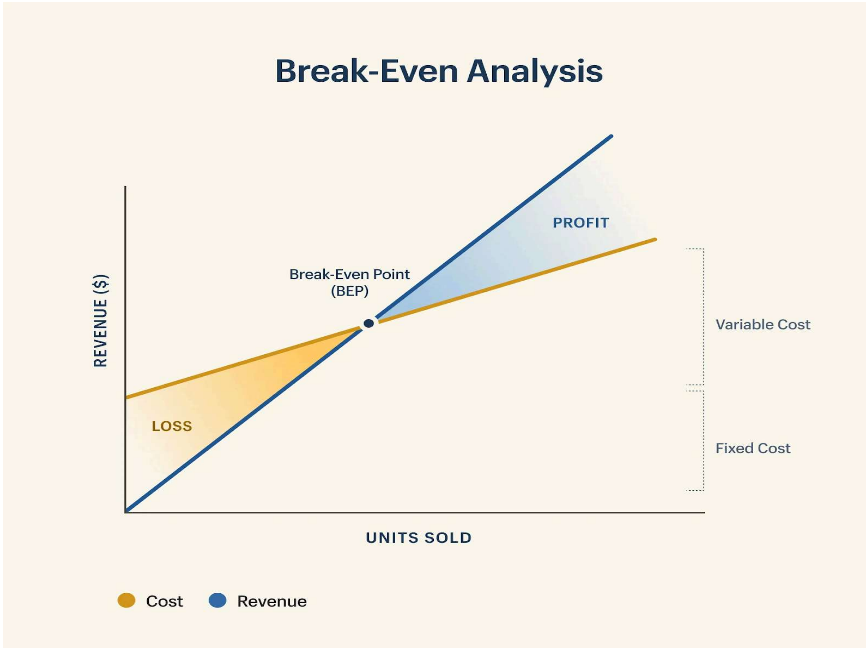
4] Classification by Normality :

This classification determines the costs as normal costs and abnormal costs. The norms of normal costs are the costs that usually occur at a given level of output, under the same set of conditions in which this level of output happens.

Normal Costs: This is a part of the cost of production and a part of the costing profit and loss. These are the costs that the firm incurs at the normal level of output in standard conditions.

Abnormal Costs: These costs are not normally incurred at a given level of output in conditions in which normal levels of output occur. These costs are charged to the profit and loss account, they are not a part of the cost of production.

9. Explain Break Even Analysis with the help of diagram.



Refer PART-B Q.No.4

10. Distinguish between internal and external economies of scale.

Refer PART-B Q.No.12

PART - B

1 Distinguish in detail the different types of production function with their formulas.

Ans)A production function gives the technological relation between quantities of physical inputs and quantities of output of goods.
There are different types of production functions that can be classified according to the degree of substitution of one input by the other.

1. Cobb-Douglas Production Function:

Cobb-Douglas production function refers to the production function in which one input can be substituted by other but to a limited extent. For example, capital and labor can be used as a substitute of each other, but to a limited extent only.
Cobb-Douglas production function can be expressed as follows:
Q = AK^(a)L^(b)

Where, A = positive constant
a and b = positive fractions

2. Leontief Production Function:Leontief production function uses fixed proportion of inputs having no substitutability between them. It is regarded as the limiting case for constant elasticity of substitution.
The production function can be expressed as follows:

$q = \min(z1/a, Z2/b)$
Where, q = quantity of output produced
Z1 = utilized quantity of input 1
Z2 = utilized quantity of input 2

a and b = constants
For example, tyres and steering wheels are used for producing cars. In such case, the production function can be as follows:
$Q = \min(z1/a, Z2/b)$
Q = min (number of tyres used, number of steering used).

3. CES Production Function:CES stands for constant elasticity substitution. CES production function shows a constant change produced in the output due to change in input of production.
It can be represented as follows:

$Q = A\,[ak^{(\beta)} + (1-a)\,L^{(-\beta)}]^{(-1/\beta)}$
Or,
$Q = A\,[aL^{(-\beta)} + (1-a)\,K^{(-\beta)}]^{(-1/\beta)}$

2 Define 'Cost'. How are costs classified? Explain any five important cost concepts useful for managerial decisions

The cost refers to the amount of payment made to acquire any goods and services. In a simpler way, the concept of cost is a financial valuation of resources, materials, risks, time and utilities consumed to purchase goods and services

The classification of cost is based on the nature of the expenditure, which are the three broad categories as per this, namely Labour Cost, Materials Cost and Expenses.
Costs can be classified as per

1) their nature like material, labour and overheads.

2) as per cost centre direct costs, direct material, direct labour, direct expense, indirect costs, indirect material, indirect labour, indirect expenses,

3) as per time like historical cost, predetermined cost, standard cost, Estimated cost

COSTS CONCEPTS

Fixed and variable costs

Fixed cost is that cost which remains constant for a certain level of output. It is not affected by the changes in the volume of production. (But fixed cost per unit decreases, when the production is increased.) Fixed costs include salaries, Rent, Administrative expenses, depreciation etc.

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

Post and future costs

Post costs also called historical costs are the actual cost incurred and recorded in the book of account; these costs are useful only for valuation and not for decision making. Future costs are costs that are expected to be incurred in the future. They are not actual costs. They are the costs forecasted or estimated with rational methods. Future cost estimates are useful for decision making because decisions are meant for the future.

Traceable cost and common cost

Traceable costs, otherwise called direct cost, is one, which can be identified with a product's process or product. Raw material, labour involved in production are examples of traceable cost. Common costs are the ones that are attributed to a particular process or product. They are incurred collectively for different processes or different types of products. It cannot be directly identified with any particular process or type of product.

FOR MORE VISIT LECTURE NOTES PAGE 48

3 Explain various economies of scale and diseconomies of scale that accumulate to the firm when it expands its operations?

Production may be carried on a small scale or a large scale by a firm. When a firm expands its size of production by increasing all the factors, it secures certain advantages known as economies of production. Marshall has classified these economies of large-scale production into internal economies and external economies.

Internal economies are those benefits, which are opened to a single factory or a single firm independently of the actions of other firms. They result from an increase in the scale of output of a firm and cannot be achieved unless output increases. Hence internal economies depend solely upon the size of the firm and are different for different firms.

External economies are those benefits, which are shared in by a number of firms or industries when the scale of production in an industry or groups of industries increases. Hence external economies benefit all firms within the industry as the size of the industry expands.

DISECONOMIES OF SCALE

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

1. Internal Diseconomies
2. External Diseconomies

1. Internal Diseconomies

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

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

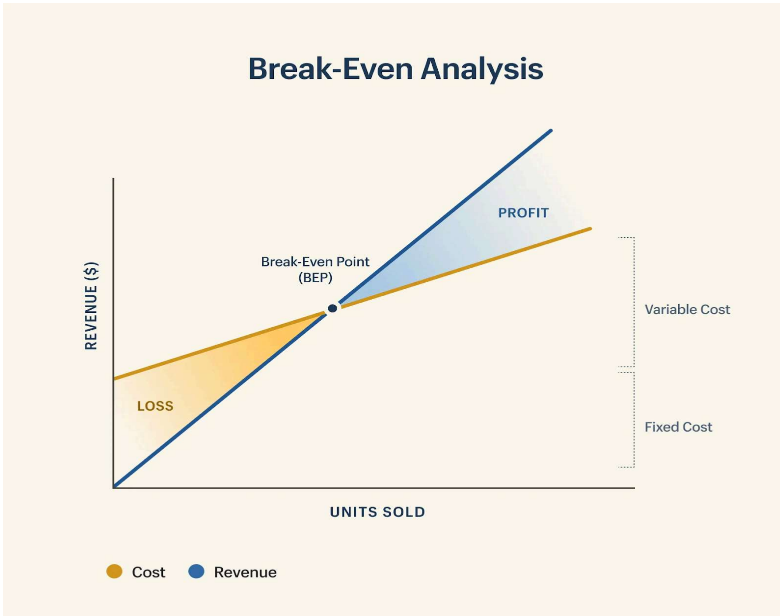
(c) Marketing diseconomies: As business is expanded, prices of the factors of production will rise. The cost will therefore rise. Raw materials may not be available in sufficient quantities due to their scarcity. Additional output may depress the price in the market. The demand for the products may fall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

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

(e) Diseconomies of risk taking: As the scale of production of a firm expands, risks also increase with it. Wrong decisions by the management may adversely affect production. If large firms are affected by any disaster, natural or human, the economy will be put to strains.

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

4 Simplify the concept and assumptions of Break-even analysis, with the help of diagram



Break-even analysis entails calculating and examining the margin of safety for an entity based on the revenues collected and associated costs. In other words, the analysis shows how many sales it takes to pay for the cost of doing business.

Assumptions:

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

5 Explain the concept of Production function? Why is it useful in the analysis of firms' behaviour?

Ans)Production function can be defined as a technological relationship between the physical inputs (i.e., factors of production) and the physical output of the organisation

Inputs include the factors of production, such as land, labour, capital, whereas physical output includes quantities of finished products produced. The long-run production function (Q) is usually expressed as follows:

Q= f (LB, L, K, M, T, t)

Where, LB= land and building

L = labour

K = capital

M = raw material

T = technology

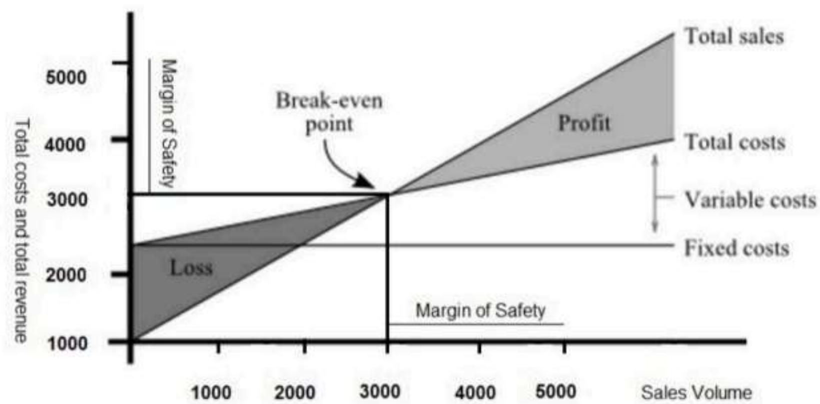
t = time

A firm's production function describes the relationship between the quantity of inputs and the quantity of outputs it produces. The relationship between the inputs employed by a firm and the maximum output it can produce with those inputs

- It is a useful **analysis of a firm's behaviour** since it defines the total 'amount of output' that can be obtained from a given **'number of inputs'** of factors of production.
- The production function helps the **business organizations** in making decisions regarding the manufacturing of their products.
- It depends on the **amount of commodity** that sells in the market and the **'demand for the products'.**
- It is dependent upon the **total production of goods** form the different factors of production and the **costs involved in the process.**

6 Illustrate the Break-even chart with the diagram and also write in what way it is useful to know the profit and loss of the company?

Ans)A breakeven chart is a chart that shows the sales volume level at which total costs equal sales. Losses will be incurred below this point, and profits will be earned above this point. The chart plots revenue, fixed costs, and variable costs on the vertical axis, and volume on the horizontal axis. The chart is useful for portraying the ability of a business to earn a profit with its existing cost structure



(1) It is customary to use the horizontal axis for units of output and vertical axis for monetary values like sales, revenue and total costs.
(2) Sales revenue line makes an angle of 45o and start from (0,0).

(3) As fixed costs remain the same at all output levels so fixed cost line is drawn across the chart as a straight line parallel to the horizontal axis.

(4) The variable cost lines commences on the vertical axis from the same point where fixed cost line intersects the vertical axis. This is to show total cost on the chart.
(5) On the chart, break even point represents the point at which total cost and total revenue lines cross each other.
(6) The break-even point so determined tells the reader that the break-even point in terms of units of output on the horizontal axis and in terms of sales revenue and total costs on the vertical axis.
(7) Shaded area below the break-even point indicates losses, whereas shaded area above the break-even point indicates profits.
(8) Profit and loss on break even chart may be determined by looking at the vertical distance between the sales revenue and total cost line.
(9) The difference between the prevailing sales and the break even sales represents margin of safety, both in terms of sales revenue and output level.
(10) If break even point appears well over the right side of the chart then it would imply too high total fixed costs or low contribution. This will result in lower margin of safety.
(11) If the break even point over to the left side of the chart coupled with a large angle of incidence then it would imply either lower total fixed costs or high contribution.

7 A firm starts its business with fixed expenses of Rs.60,000 to produce commodity X. Its variable cost is Rs.2 per unit. Prevailing market price of the product is Rs.6. How much should the firm produce to earn a profit of Rs.20, 000 at this price?

8 A manufacturer has a sale of Rs.15,000 at a profit of Rs.400. If he sells Rs.19, 000, he makes a profit of Rs.1,200. Find out Contribution margin ratio, BEP a) Sale for a profit of Rs. 4,400

Data is inadequate to solve. BEP requires Selling Price/Variable Cost to calculate.

9 Examine the significance of Break-Even Analysis. State the assumptions and limitations of Break Even Analysis

Break-even analysis entails calculating and examining the margin of safety for an entity based on the revenues collected and associated costs. In other words, the analysis shows how many sales it takes to pay for the cost of doing business. Analysing different price levels relating to various levels of demand, the break-even analysis determines what level of sales are necessary to cover the company's total fixed costs. A demand-side analysis would give a seller significant insight into selling capabilities.

Assumptions:

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

LIMITATIONS (SUBHEADINGS MAY BE SUFFICIENT)

1. Costs are constant

A significant disadvantage of break-even analysis is considering the same price assumption for calculation purposes. The constant cost concept is irrelevant since as the company increases its production volume, economies of scale will lower the input cost. Thus, all businesses benefit by way of lower cost of purchase with increased volumes.

Assuming that the sale price remains unchanged, reducing costs will lower the unit break-even volume from the original analysis.

2. Unchanged Sales Price

The analysis also assumes that the unit sales price remains the same. The sale price of any product is market-driven, and a company's management may have to adopt a dynamic pricing policy to survive the market's uncertainties.

3. Single product

The break-even model suits businesses with a single product. The model does not function accurately for multi-product calculations as it assumes the relative proportion of each product produced and sold to be constant.

4. The complexity of cost heads

There are many semi-variable costs. For a multi-product company, it is difficult to apportion the cost product-wise; the break-even calculation becomes complex and unreliable.

5. Does not factor Inventory

The analysis considers that the quantity produced equals the quantity sold in the case of a business enterprise.

In reality, however, there is always an opening and closing inventory of goods to be considered. For example, goods produced at the beginning of the analysis period and the closing stock at the end of the study period will impact the real situation.

10 What is meant by Cost? Explain in detail about the concept of cost and nature of cost?

The cost refers to the amount of payment made to acquire any goods and services. In a simpler way, the concept of cost is a financial valuation of resources, materials, risks, time and utilities consumed to purchase goods and services

NATURE OF COST

Fixed and variable costs Fixed cost is that cost which remains constant for a certain level of output. It is not affected by the changes in the volume of production. But fixed cost per unit decreases, when the production is increased. Fixed costs include salaries, Rent, Administrative expenses, depreciation etc. Variable is that which varies directly with the variation in output. An increase in total output results in an increase in total variable costs and decrease in total output results in a proportionate decline in the total variables costs. The variable cost per unit will be constant. Ex: Raw materials, labour, direct expenses, etc

Post and future costs Post costs also called historical costs are the actual cost incurred and recorded in the book of account these costs are useful only for valuation and not for decision making.Future costs are costs that are expected to be incurred in the future. They are not actual costs. They are the costs forecasted or estimated with rational methods. Future cost estimates are useful for decision making because decisions are meant for the future.

traceable cost and common cost Traceable costs, otherwise called direct cost, is one, which can be identified with a product's process or product. Raw material, labour involved in production are examples of traceable cost.Common costs are the ones that are attributed to a particular process or product. They are incurred collectively for different processes or different types of products. It cannot be directly identified with any particular process or type of product.

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

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

1. opportunity cost and outlay cost
2. Explict and implict costs
3. Historical and replacement costs
4. shortrun and longrun costs
5. outof pocket and book costs
6. Fixed and variable costs
7. Post and future costs
9. Avoidable cost and unavoidable cost
10. controllable cost and uncontrollable cost

FOR MORE VISIT LECTURE NOTES PAGE 48

OR

VISIT Different Cost Concepts (An Overview)

11 Define Cobb Douglas production function? Explain the production function with one variable input?

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

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

Where Y=output

K=Capital

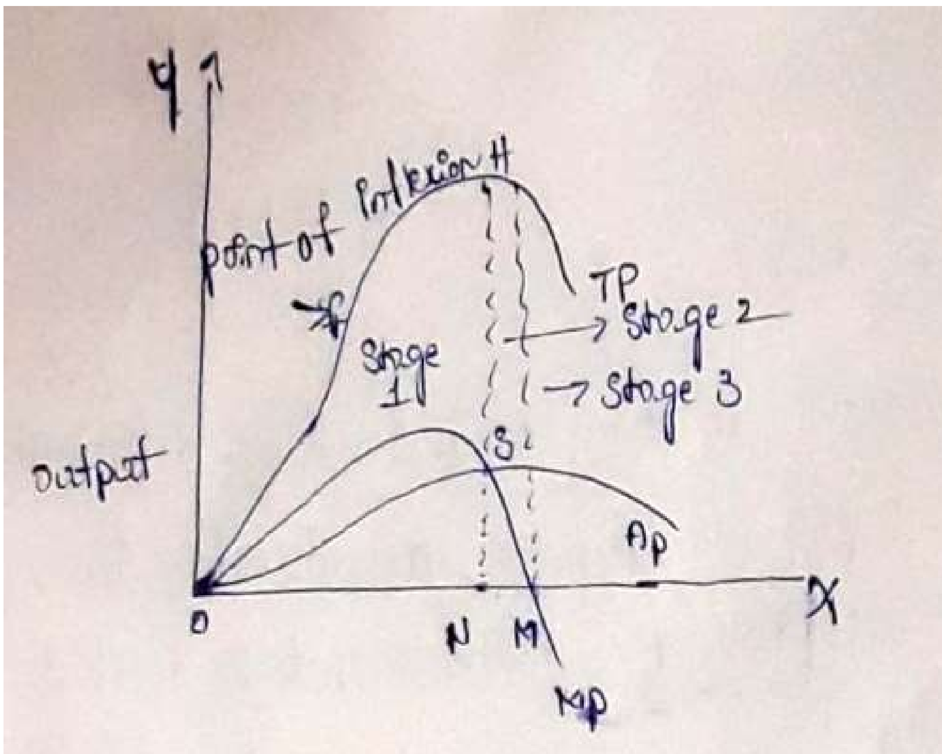
L=Labour

A, ∞=positive constant

ONE VARIABLE INPUT

production factor with one variable input

The law of returns state that when atleast one factor of production is fixed and when all other factors are varied, the output in the initial stage will increase at an increasing rate and after reaching certain level of output the total output will increase at decreasing stage



12 Define Economies of Scale explain different types of External Economies and Internal Economies

Production may be carried on a small scale or o a large scale by a firm. When a firm expands its size of production by increasing all the factors, it secures certain advantages known as economies of production. Marshall has classified these economies of large-scale production into internal economies and external economies. Internal economies are those, which are opened to a single factory or a single firm independently of the actions of other firms. They result from an increase in the scale of output of a firm and cannot be achieved unless output increases. Hence internal economies depend solely upon the size of the firm and are different for different firms.

1. Indivisibilities: Many fixed factors of production are indivisible in the sense that they must be used in a fixed minimum size. For instance, if a worker works half the time, he may be paid half the salary. But he cannot be chopped into half and asked to produce half the current output. Thus as output increases the indivisible factors which were being used below capacity can be utilised to their full capacity thereby reducing costs. Such indivisibilities arise in the case of labour, machines, marketing, finance and research.
2. Specialisation: Division of labour, which leads to specialisation, is another cause of internal economies. Specialisation refers to the limitation of activities within a particular field of production. Specialisation may be in labour, capital, machinery and place. For example, the production process may be split into four departments relating to manufacturing, assembling, packing and marketing under the charge of separate managers who may work under the overall charge of the general manager and coordinate the activities of the four departments. Thus specialisation will lead to greater productive efficiency and to reduction in costs.

External economies are those benefits, which are shared in by a number of firms or industries when the scale of production in an industry or groups of industries increases. Hence external economies benefit all firms within the industry as the size of the industry expands.

(a) Economies of concentration: When an industry is concentrated in a particular area, all the member firms reap some common economies like skilled

labour, improved means of transport and communications, banking and financial services, supply of power and benefits from subsidiaries. All these facilities tend to lower the unit cost of production of all the firms in the industry.
(b) Economies of information: The industry can set up an information centre which may publish a journal and pass on information regarding the availability of raw materials, modern machines, export potentialities and provide other information needed by the firms. It will benefit all firms and reduce their costs.
(c) Economies of welfare: An industry is in a better position to provide welfare facilities to the workers. It may get land at concessional rates and procure special facilities from the local bodies for setting up housing colonies for the workers. It may also establish public health care units, educational institutions both general and technical so that a continuous supply of skilled labour is available to the industry. This will help the efficiency of the workers.
(d) Economies of Disintegration: The firms in an industry may also reap the economies of specialisation. When an industry expands, it becomes possible to split up some of the processes which are taken over by specialist firms. For example, in the cotton textile industry, some firms may specialise in manufacturing thread, others in printing, still others in dyeing, some in long cloth, some in dhotis, some in shirting etc. As a result the efficiency of the firms specialising in different fields increases and the unit cost of production falls.Thus internal economies depend upon the size of the firm and external economies depend upon the size of the industry.

13 A Company is operating at a fixed cost of Rs. 1,00,000 and variable cost of Rs. 50 each and sales volume is 10,000 units and selling price is Rs. 80 per unit. Calculate PVR, BEP, MS, Sales to earn a profit of Rs. 3,00,000 and profit on sales of Rs. 15,00,000.

2. F = 1,00,000

V = 50 each

Sales vol = 10,000 units

∴ V = 50 × 10,000

V = 500000

Total sales S = ₹80 × 10,000

= 800000

Now, C = S − V = 8L − 5L = 3L

P = C − F = 3L − 1L = 2L

PVR = $\frac{C}{S} \times 100 = \frac{3L}{8L} \times 100 = \underline{37.5\ \%}$

BEP = $\frac{F}{PVR} = \frac{1,00,000}{37.5} \times 100$

= 2,66,666.67

MS = $\frac{P}{PVR} = \frac{2,00,000}{37.5} \times 100$ = 5333 333 × 100

= 533333.33

STDP for DP = ₹3,00,000

= $\frac{F + DP}{PVR} = \frac{1,00,000 + 3,00,000}{37.5} \times 100$

= 1066666.67

PWS for DS = 15,00,000

= (DS × PVR) − F

= $\left(15,00,000 \times \frac{37.5}{100}\right) - 1,00,000$

= 562500 − 1,00,000

= 462500

14 Outline the significance of Break-Even Analysis. State the assumptions and limitations of Break Even Analysis

SAME AS part b 9TH QUESTION

15 Explain the assumptions in Break -even analysis. Explain how Break –even analysis is used by the manager in their day-to-day operations?

Same as part b 4th question

Such analysis gives managers a quantity to compare to the forecast of demand. If the break-even point lies above anticipated demand, implying a loss on the product, the manager can use this information to make a variety of decisions

The first is to classify your costs according to how they behave (are they fixed or variable). The second is to calculate what your breakeven is, and the third is to use this information as a tool to make better business decisions whether you are setting sales prices, managing costs or planning for profit.

16 If sales is 10,000 units and selling price is Rs 20 per unit, variable cost Rs. 10 per unit and fixed cost is Rs. 80,000. Find out BEP in units and in sales revenue. What is the profit earned? What should be the sales per earning a profit of Rs. 60,000?

16, 19) Sales = 10000

$SP = 20/\text{unit}$

$VC = 10/\text{unit}$

$FC = 80000$

$$BEP = \frac{FC}{SP - VC} = \frac{8000\cancel{0}}{1\cancel{0}} = \underline{8000 \text{ units}}$$

$$BEP\ (\text{Sales}) = 8000 \times SP = 8000 \times 20 = \underline{160000}$$

PROFIT:

$$(SP \cancel{\times} - VC)\ \text{Sales} - FC = \text{Profit}$$

$$(20 - 10) \times 10000 - 80000 = \text{Profit}$$

$$100000 - 80000 = \underline{20000}$$

if PROFIT = 60000:

$$(20 - 10) \times \text{Sales} - FC = 60000$$

$$10 \times \text{Sales} = 80000 + 60000$$

$$1\cancel{0} \times \text{Sales} = 14000\cancel{0}$$

$$\underline{\text{Sales} = 14000}$$

Alternate Solution just for reference below:

(16) $S - V = C = F + P$

Sales Revenue = sales x selling price
= 10,000 x 20
= 2,00,000

Variable cost = sales x Variable cost per unit
= 10,000 x 10
= 1,00,000

S = sales revenue
V = variable cost
C = contribution
F = fixed cost
P = profit

contribution = sales revenue - variable cost
= 2,00,000 - 1,00,000
= 1,00,000

profit = contribution - fixed cost
= 1,00,000 - 80,000
= 20,000

$$BEP = \frac{F}{PVR} = \frac{80,000}{50/100} = \frac{80,000}{50} \times 100 = 1,60,000$$

$$PVR \text{ (profit volume ratio)} = \frac{C}{SR} \times 100 = \frac{1,00,000}{2,00,000} \times 100 = 50$$

sales to earn a profit of 60,000

$$\text{sales Revenue} = \frac{F + \text{Profit to be made}}{PVR} = \frac{80,000 + 60,000}{50/100}$$

$$= \frac{80,000 + 60,000}{50} \times 100 = 2,80,000$$

$$\text{sales} = \frac{\text{sales Revenue}}{\text{selling Price}} = \frac{2,80,000}{20} = 14,000$$

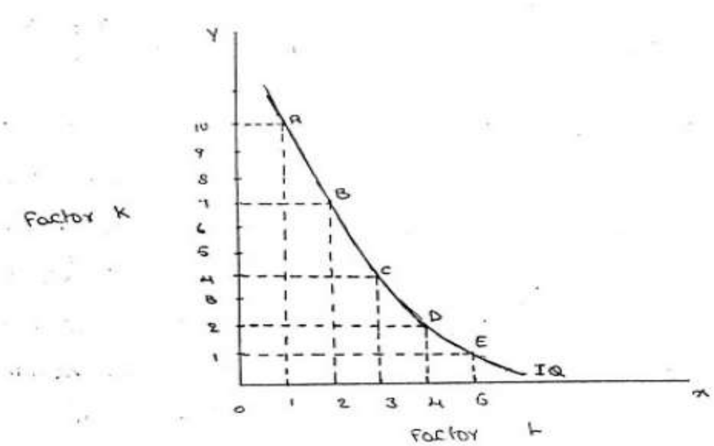
17 Define and Explain Iso-quants. What are the properties of Iso-quants? Explain the producer's equilibrium with the help of Iso-quants.

A)Isoquants are the curves, which represent the different combinations of inputs producing a particular quantity of output. Any combination on the isoquant represents the some level of output. For a given output level firm's production become.Q= f (L, K) Where 'Q', the units of output is a function of the quantity of two inputs 'L' and 'K'. Thus an isoquant shows all possible combinations of two inputs, which are capable of producing equal or a given level of output. Since each combination yields same output, the producer becomes indifferent towards these combinations.

An isoquant curve is a concave-shaped line on a graph, used in the study of microeconomics,

Properties of Isoquants

1. An isoquant lying above and to the right of another isoquant represents a higher level of output.
2. Two isoquants cannot cut each other
3. Isoquants are convex to the origin
4. No isoquant can touch either axis
5. Isoquants are negatively sloped
6. Isoquants need not be parallel
7. Each isoquant is oval-shaped



PRODUCER EQUILIBRIUM: The term producer's equilibrium is the counterpart of consumer's equilibrium. Just as the consumer is in equilibrium when he secures maximum satisfaction, in the same manner, the producer is in equilibrium when he secures maximum output, with the least cost combination of factors of production. The optimum position of the producer can be found with the help of an iso-product curve. The Iso-product curve or equal product curve or production indifference curve shows different combinations of two factors of production, which yield the same output. This is illustrated as follows. Let us suppose. The producer can produce the given output of paddy, say 100 quintals by employing any one of the following alternative combinations of the two factors: labour and capital computation of least cost combination of two inputs.

It is clear from the above that 10 un

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

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

18 "Most of the cost concepts are overlapping and repetitive". Do you agree with this statement? Simplify your answer

and

Ans)Cost accounting is defined as "a systematic set of procedures for recording and reporting measurements of the cost of manufacturing goods and performing services in the aggregate and in detail. It includes methods for recognizing, classifying, allocating, aggregating and reporting such costs and comparing them with standard costs." Often considered a subset of managerial accounting, its end goal is to advise the management on how to optimize business practices and processes based on cost efficiency and capability. Cost accounting provides the detailed cost information that management needs to control current operations and plan for the future.

Cost accounting information is also commonly used in financial accounting, but its primary function is for use by managers to facilitate their decision-making.

These categories are flexible, sometimes overlapping as different cost ...

19 If sales are 10,000 units and selling price is Rs 20 per unit, variable cost Rs 10 per unit and fixed cost is Rs. 80,000. Find out BEP in units and in sales revenue. What is the profit earned? What should be the sales per earning a profit of Rs. 60,000?

SAME AS 16TH QUESTION

20 Explain how cost - output relationship helps the enterprise or entrepreneurs in expansion decisions.

A proper understanding of the nature and behavior of costs is a must for regulation and control of cost of production. The cost of production depends on money forces and an understanding of the functional relationship of cost to various forces will help us to take various decisions. Output is an important factor, which influences the cost. The cost-output relationship plays an important role in determining the optimum level of production. Knowledge of the cost-output relation helps the manager in cost control, profit prediction, pricing, promotion etc. The relation between cost and its determinants is technically described as the cost function.

C= f (S, O, P, T . . . .) where C= Cost (Unit or total cost) S= Size of plant/scale of production O= Output level P= Prices of inputs T= Technology Considering the period the cost function can be classified as (a) short-run cost function . (b) long-run cost function. In economics theory, the short-run is defined as that period during which the physical capacity of the firm is fixed and the output can be increased only by using the existing capacity allows to bring changes in output by physical capacity of the firm.

PART - C

1 Recall the meaning of 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.

2 Explain the meaning of production function

The production function expresses a functional relationship between physical inputs and physical outputs of a firm at any particular time period. The output is thus a function of inputs. Mathematically, the production function can be written as Q= f (A, B, C, D)

3 Outline how explicit cost varies from implicit costs.

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

IMPLICIT COSTS are the costs of the factor units that are owned by the employer himself. These costs are not actually incurred but would have been incurred in the absence of employment of self – owned factors. The two normal implicit costs are depreciation, interest on capital etc. A decision maker must consider implicit costs too to find out appropriate profitability of alternatives.
Put simply, an implicit cost comes from the use of an asset, rather than renting or buying it.

4 Define Profit Volume Ratio.

Usually called P. V. ratio. The ratio of contribution to sales is the P/V ratio. It may be expressed in percentage. Therefore, every organisation tries to improve the P. V. ratio of each product by reducing the variable cost per unit or by increasing the selling price per unit. The concept of P. V. ratio helps in determining break even-point, a desired amount of profit etc.
ProfitVolumeRatio = (Contribution/Sales) X 100

5 Write short note on 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 to what extent the output and sales price can be changed to attain a desired amount of profit.

6 What are the assumptions of BEA?

Assumptions:

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

7 What is the production function and how is it formatted?

The production function of an enterprise is an association between inputs utilised and output manufactured by an enterprise. For various quantities of inputs utilised, it gives the utmost quantity of output that can be manufactured.

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

1. Increasing production

2. Increasing selling price
3. Reducing the fixed or the variable costs or both

9 List out the assumptions of Break-Even Analysis.

SAME AS 6TH QUESTION

10 Outline the exceptions of law of diminishing marginal utility
Exceptions of Law of Diminishing Marginal Utility:
There are some exceptions or limitations to the law of diminishing utility.

(i) Case of intoxicants: Consumption of liquor defies the law for a short period. The more a person drinks, the more they like it. However, this is true only initially. A stage comes when a drunkard too starts taking less and less liquor and eventually stops it.

(ii) Rare collection: If there are only two diamonds in the world, the possession of the 2nd diamond will push up the marginal utility.

(iii) Application to money: The law equally holds good for money. It is true that more money a man has, the greedier he is to get additional units of it. However, the truth is that the marginal utility of money declines with richness but never falls to zero.

11 List out the Internal Economies of scale.

1. Indivisibilities: Many fixed factors of production are indivisible in the sense that they must be used in a fixed minimum size. For instance, if a worker works half the time, he may be paid half the salary. But he cannot be chopped into half and asked to produce half the current output. Thus as output increases the indivisible factors which were being used below

capacity can be utilised to their full capacity thereby reducing costs. Such indivisibilities arise in the case of labour, machines, marketing, finance and research.

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

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

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(d) Economies of Disintegration: The firms in an industry may also reap the economies of specialisation. When an industry expands, it becomes possible to split up some of the processes which are taken over by specialist firms. For example, in the cotton textile industry, some firms may specialise in manufacturing thread, others in printing, still others in dyeing, some in long cloth, some in dhotis, some in shirting etc. As a result the efficiency of the firms specialising in different fields increases and the unit cost of production falls.Thus internal economies depend upon the size of the firm and external economies depend upon the size of the industry.

13 Illustrate the formula for Contribution.

Contribution is the difference between sales and variable costs and it contributes towards fixed costs and profit. It helps in sales and pricing policies and measuring the profitability of different proposals. Contribution is a sure test to decide whether a product is worthwhile to be continued among different products.

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

15 Interpret the formula for P/V Ratio.

The PV ratio or P/V ratio is arrived at by using the following formula.

P/V ratio = (contribution /sales)*100

(*Contribution means the difference between sale price and variable cost). Here contribution is multiplied by 100 to arrive the percentage

16 Recall the formula for Break-Even Point (in value)

$$\text{Break even (sales value \$)} = \frac{\text{Total fixed costs}}{\text{Contribution ratio}}$$

Contribution ratio is calculated as:

$$\text{Contribution ratio} = \frac{\text{Contribution}}{\text{Sales}}$$

Contribution ratio may be improved by:

Increasing the sale price.
Reducing the variable costs.
Switching production to products with higher contribution rate.

17 Explain the formula for Break-Even Point (in units)

To calculate the break-even point in units use the formula: Break-Even point (units) = Fixed Costs ÷ (Sales price per unit – Variable costs per unit) or in sales dollars using the formula: Break-Even point (sales dollars value) = Fixed Costs ÷ Contribution Margin

18 Summarise the features of production function

Features of Production Function

1. Substitutability
2. Complementarity
3. Speconstant

19 Write a short note on Direct and indirect costs.

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

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

20 Explain Managerial use of production function

The managerial use of the production function
It may be used to compute the least-cost combination of inputs for a given output.

It may be used by the manager to obtain the most appropriate combination of input. Which yields the maximum level of output with a given level of cost.

1. $PVR = \frac{C}{S} \times 100$; $\frac{S-V}{S} \times 100$; $\frac{F+P}{S} \times 100$

contributn w.r.t to sales. PV Ratio

2. BEP (Break even point)

$= \frac{F}{PVR} = \frac{F \times S}{S-V} \times \frac{1}{100} = \frac{F \times S}{F+P} \times \frac{1}{100}$

3. $MS = \frac{P}{PVR}$; (TS − BEP sales) Margin of safety

TS − Total Sales

4. $STDP = \frac{F + DP}{PVR}$

5. $PWS = [(DS \times PVR) - F]$ DS - Desired Sales

IARE '24 DISCORD TEAM

II-II

BEFA MODULE 3 SOLUTIONS

NIDHI • UJJWAL • PRANAV • ASRITHA

MARKETS AND NEW ECONOMIC ENVIRONMENT

In Edit

BEFA MODULE 3

PART A

1. How does an individual firm behave under perfect competition? Also explain the firm and the industry equilibrium under perfect competition?

Under perfect competition, the firm must accept the price determined in the market. The firm is a price taker --it can produce as much or as little as it likes without affecting the market price. Each firm must match the price offered by its competitors because the products are identical
Equilibrium of the Industry In a Perfectly competitive Market, several influential factors determine the Price of commodities. For example, if the demand is high and supply is low, then the Price will increase. During a storm or flood, you will notice that the Price of groceries rises tremendously. This is because the storm or flood has destroyed the crop, and hence the supply reduces. However, since the demand for groceries is still high, therefore, the Price automatically increases. On the other hand, if the supply is more than demand, then the Price will drop. Equilibrium of both the industry and the firm is significant in Price Determination under a Perfect Competition Market
Equilibrium of the Firm in a Perfectly Competitive Market when there is profit maximisation, the firm is said to be in Equilibrium. The input that provides the highest output to that particular firm, is known as the Equilibrium output. In such a state, there are no factors to increase or reduce the output. The firm is the Price taker in a competitive Market. They produce homogenous commodities. Therefore, influencing the pricing factors isn't on the will of the firms. They strictly follow the Price structure, as stated by the industry. This is how Price and output Determination under Perfect Competition is done. Now, we will explore more on the topic of how Prices are determined under Perfect Competition

2. Explain the role of time factor in the determination of price. Also explain price output determination in case of perfect competition.

Time plays an important role in the theory of volume, i.e., price determination because supply and demand conditions are affected by time.

Price during the short-period can be higher or lower than the cost of production, but in the long-period price will have a tendency to be equal to the cost of production.

The relative importance of supply on demand in the determination of price depends upon the time given to supply to adjust itself to demand.

To study the relative importance of supply or demand in price determination, Prof. Marshall has divided time element-into three categories:

(a) Very short period or market period.

(b) Short period.

(c) Long period

Under perfect competition, price of the commodity is determined by the forces of demand and supply. Marshall, who propounded the theory says the price is determined by the forces of demand as well as supply. He also laid emphasis on the time element in the determination of price.

According to him, time plays a vital role in the determination of the price of the commodity, because when the demand for the commodity changes the supply cannot be changed in the same proportion. It takes time to bring changes in the supply of commodity.

Marshall has divided the time into four categories from the view point of supply:

1. Market Period.
2. Short Period.
3. Long Period.
4. Secular Period

time plays a vital role in determining the price of commodity. The shorter the time, the more will be the influence of demand as compared to the supply.

3. Explain how the price is determined under conditions of perfect competition. Illustrate this with the help of diagrams.

4. Monopoly is disappearing from the market. Do you agree with this statement? Give your opinion for the monopoly to continue in the market situations.

Monopoly is a form of market organization in which there is only one seller of the commodity. There are no close substitutes for the commodity sold by the seller. Pure monopoly is a market situation in which a single firm sells a product for which there is no good substitute.

Disadvantages of monopolies

1.Higher prices than in competitive markets – Monopolies face inelastic demand and so can increase prices – giving consumers no alternative.

For example, in the 1980s, Microsoft had a monopoly on PC software and charged a high price for Microsoft Office.

A decline in consumer surplus. Consumers pay higher prices and fewer consumers can afford to buy. This also leads to allocative inefficiency because the price is greater than marginal cost.

Monopolies have fewer incentives to be efficient. With no competition, a monopoly can make profit without much effort, therefore it can encourage x-inefficiency (organisational slack).

Possible dis-economies of scale. A big firm may become inefficient because it is harder to coordinate and communicate in a big firm.

Monopolies often have monopsony power in paying a lower price to suppliers. For example, farmers have complained about the monopsony power of large supermarkets – which means they receive a very low price for products. A monopoly may also have the power to pay lower wages to its workers.

Monopolies can gain political power and the ability to shape society in an undemocratic and unaccountable way – especially with big IT giants who have such an influence on society and people's choices. There is a growing concern over the influence of Facebook, Google and Twitter because they influence the diffusion of information in society.

Inefficiency of monopoly Monopolies set the price of Pm – which is higher than Pc (allocative inefficiency)Monopolies produce at Qm (which is productive inefficient – not the lowest point on AC curve)Monopolies lead to deadweight welfare loss of blue triangle.

Advantages of monopolies

Economies of scale.

In an industry with high fixed costs, a single firm can gain lower long-run average costs – through exploiting economies of scale. This is particularly important for firms operating in a natural monopoly (e.g. rail infrastructure, gas network). For example, it would make no sense to have many small companies providing tap water because these small firms would be duplicating investment and infrastructure. The large- scale infrastructure makes it more efficient to just have one firm – a monopoly

Innovation. Without patents and monopoly power, drug companies would be unwilling to invest so much in drug research. The monopoly power of patent provides an incentive for firms to develop new technology and knowledge, that can benefit society. Also, monopolies make supernormal profit and this supernormal profit can be used to fund investment which leads to improved technology and dynamic efficiency. For example, large tech monopolies, such as Google and Apple have invested significantly in new technological developments. However, this can also have downsides with drug companies able to charge excessively high prices for life-saving drugs. It also gives drug companies an incentive to push pharmaceutical treatments rather than much cheaper solutions to promoting good health and avoiding the poor health in the first place.

Firms with monopoly power may be the most efficient and dynamic. Firms may gain monopoly power by being better than their rivals. For example, Google has monopoly power on search engines – but can we say Google is an inefficient firm who don’t seek to innovate?

Reasons for Existence of Monopolies Ownership of a Key Resource

Government Franchise Natural Monopoly.

Some modern economists argue that a monopoly is by definition an inefficient way to distribute goods and services. This theory suggests that it obstructs the equilibrium between producer and consumer, leading to shortages and high prices. Other economists argue that only government monopolies cause market failure hence they are disappearing

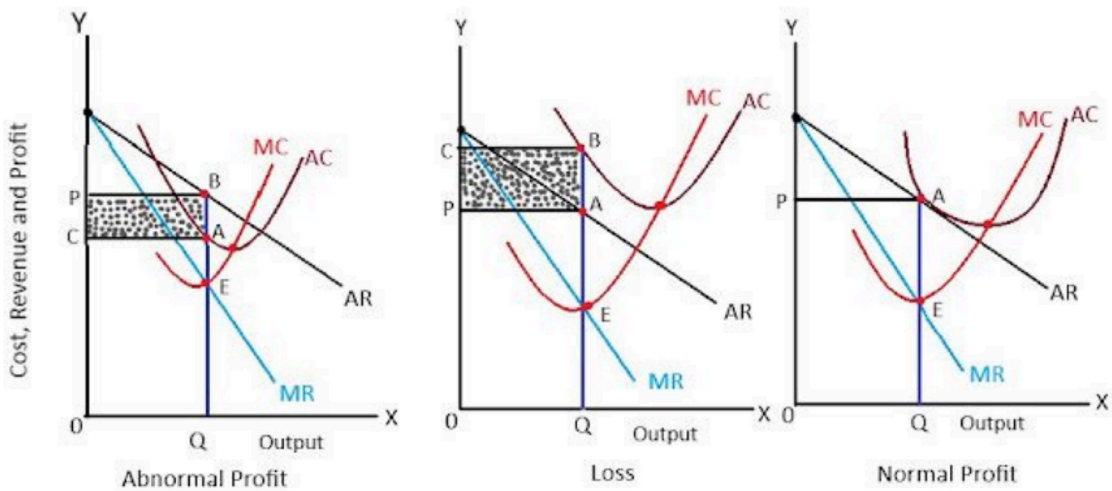
5. "It is believed that a firm under perfect competition is a price-taker and not a price-maker." Explain giving examples.

In a perfect competition market, every market will accept the price of a commodity after it is determined by the powers of the market demand and supply in the industry. The price policy they can adopt is very much dependent on other factors. This is because their contribution to the market is really small. In this situation, they cannot have any control over the market prices. The firms would not be ready to sell below the market price, and would lose customers if they exceed it. Therefore, it is known as the price taker.
For example, two companies, A and B offer identical laptops. However, the product of company A comes at a lower price, has a better graphic display and does not get heated up quickly. Besides, the efforts in its packaging and advertising are greater. This creates the benefits of product differentiation of company A over B in the market and the customer would be more inclined towards the former's products

6. Explain about the price determination in monopoly short run and long run.

Short run refers to that period in which a monopolist cannot change the fixed factors. However, the monopolist is free in determining price due to lack of competition. A monopolist has control over the market supply. So, he/ she is the price maker. His/ her price and output determination is motivated by profit as well as sales maximization. Therefore, he/ she will adjust the output in such a way that the marginal cost and marginal revenue are equal.
In short run equilibrium whether the firm makes an abnormal profit, normal

profit or loss, it depends on the level of AC and AR which can be shown as follows:-If AR=AC, the firm receives a normal profit.If AR> AC, the firm receives abnormal profit.If AR< AC, the firm bears the loss.The following conditions must be fulfilled in order to attain equilibrium under monopoly:-MR must be equal to MCMC must intersect MR from below.The equilibrium position of a monopoly



firm can be graphically presented as follows:-

In the above figures, the three different possibilities of profit and loss situation in the short run under monopoly firm are shown. These possibilities are explained as follows:-

1. Abnormal profit:-In the first figure, we see that the equilibrium point is 'E' when MC cuts MR from below. The equilibrium level of output is determined at OQ. The level of revenue earned is OP and the cost incurred is OC. Since Revenue is greater than cost, the firm earns abnormal profit equal to the shaded area (ABPC).
2. Loss:-In the second figure, point E is the equilibrium point where MC intersects MR from below. The equilibrium level of output is OQ. The cost incurred is OC and the revenue earned is OP. Since cost is higher than revenue, the firm bears loss equal to the shaded area (ABCP).
3. Normal profit:-In the third figure, we can see that the equilibrium point is at 'E' where the conditions for equilibrium are fulfilled. The equilibrium level of output is OQ. The revenue and cost are at the same level (OP). The firm earns just a normal profit to sustain its business in this case.

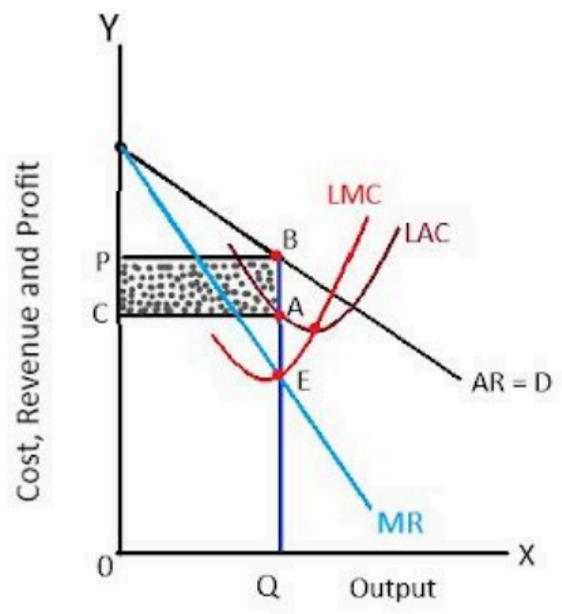
Long-run is that time period in which all the fixed and variable factors of production can be altered. The firm can change the size of plant and machinery and can determine the level of output to maximize its profit. Because of this, the firm does not suffer loss. Likewise, the entry of new firms is restricted somehow and the monopolist earns abnormal profit in the long run due to lack of competition.

The following conditions must be fulfilled to attain equilibrium under monopoly in the long run:

i) MR must be equal to LMC.

ii) LMC must intersect MR from below.

The equilibrium of a monopoly, in the long run, can be graphically presented as follows:-



In the above figure, LAC and LMC represent the long-run average cost curve and Marginal cost curve. AR and MR represent Average and Marginal Revenue. The equilibrium point is determined at ‘E’ where LMC intersects MR from below. The equilibrium level of output is determined at OQ. The cost incurred is OC and the revenue earned is OP. Since revenue is higher than cost (AR> AC), the monopolist earns abnormal profit in the long-run.

7.“Firms may not maximize profit but they do have a profit policy.” Discuss the above by bringing out clearly the various facets of a profit-policy decision by a firm.

8.To maximize the profit in the short run, a perfectly competitive firm produces the output for which price is equal to average variable cost-Why/Why not?

In determining how much output to supply, the firm's objective is to maximize profits subject to two constraints: the consumers' demand for the firm's product and the firm's costs of production. Consumer demand determines the price at which a perfectly competitive firm may sell its output. The costs of production are determined by the technology the firm uses. The firm's profits are the difference between its total revenues and total costs.Total revenue and marginal revenue. A firm's total revenue is P×Q. The dollar amount that the firm earns from sales of its output. If a firm decides to supply the amount Q of output and the price in the perfectly competitive market is P, the firm's total revenue is A firm's marginal revenue is the dollar amount by which its total revenue changes in response to a 1-unit change in the firm's output. If a firm in a perfectly competitive market increases its output by 1 unit, it increases its total revenue by P × 1 = P. Hence, in a perfectly competitive market, the firm's marginal revenue is just equal to the market price, P.

Short-run profit maximization. A firm maximizes its profits by choosing to supply the level of output where its marginal revenue equals its marginal cost. When marginal revenue exceeds marginal cost, the firm can earn greater profits by increasing its output. When marginal revenue is below marginal cost, the firm is losing money, and consequently, it must reduce its output. Profits are therefore maximized when the firm chooses the level of output where its marginal revenue equals its marginal cost

9.The case of perfect competition is sometimes referred to as a benchmark' industrial structure. In this context,what do you think commentators mean by the term 'benchmark'?

The term perfect competition refers to a theoretical market structure. In a perfect competition model, there are no monopolies. This kind of structure has a number of key characteristics, including:

All firms sell an identical product (the product is a commodity or homogeneous).All firms are price takers (they cannot influence the market price of their products).Market share has no influence on prices.Buyers have complete or perfect information (in the past, present, and future) about the product being sold and the prices charged by each firm.Capital resources and labor are perfectly mobile.Firms can enter or exit the market without cost.

The availability of free and equal information in a perfectly competitive market ensures that each firm can produce its goods or services at exactly the same rate and with the same production techniques as another one in the market hence it is used as benchmark.

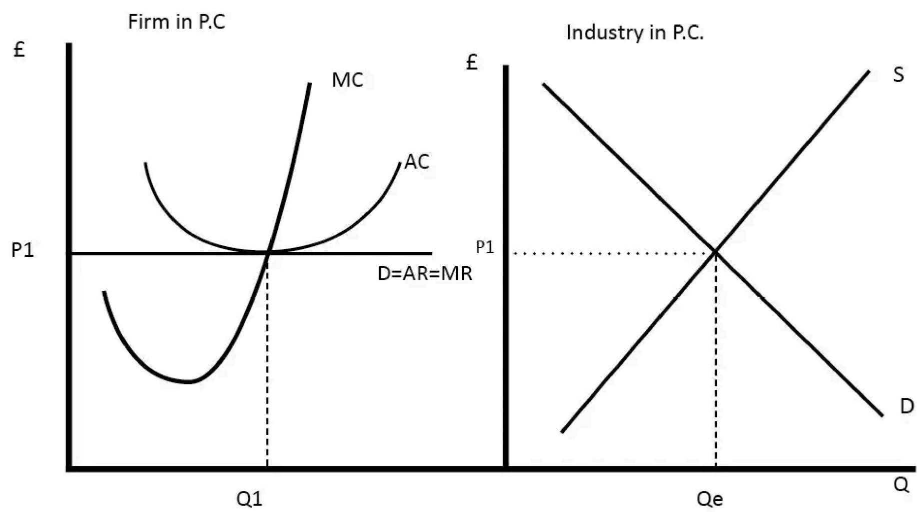
10. Assume that firms in the short run are earning above normal profits.

Explain what will happen to these profits in the long run for a market having perfect competition. Explain.

Normal profit is a situation where a firm makes sufficient revenue to cover its total costs and remain competitive in an industry. In measuring normal profit, we include the opportunity cost of working elsewhere. When a firm makes normal profit we say the economic profit is zero. Normal profit = total revenue – total costs Where total costs=Explicit costs (rent, labour costs, raw materials +)Implicit costs (opportunity cost of capital/working elsewhere

In perfect competition, there is freedom of entry and exit. If the industry was making supernormal profit, then new firms would enter the market until normal profits were made.

This is why normal profits will be made in the long run. At Q1 – AR=ATC



In short-run perfect competition profit of an individual firm can be maximized in a situation when marginal revenues (MR) equals to marginal cost (MC).

The firm is able to generate abnormal or supernormal profit in the short run for the duration of period when P1 price stays higher than the level of average cost (AC).

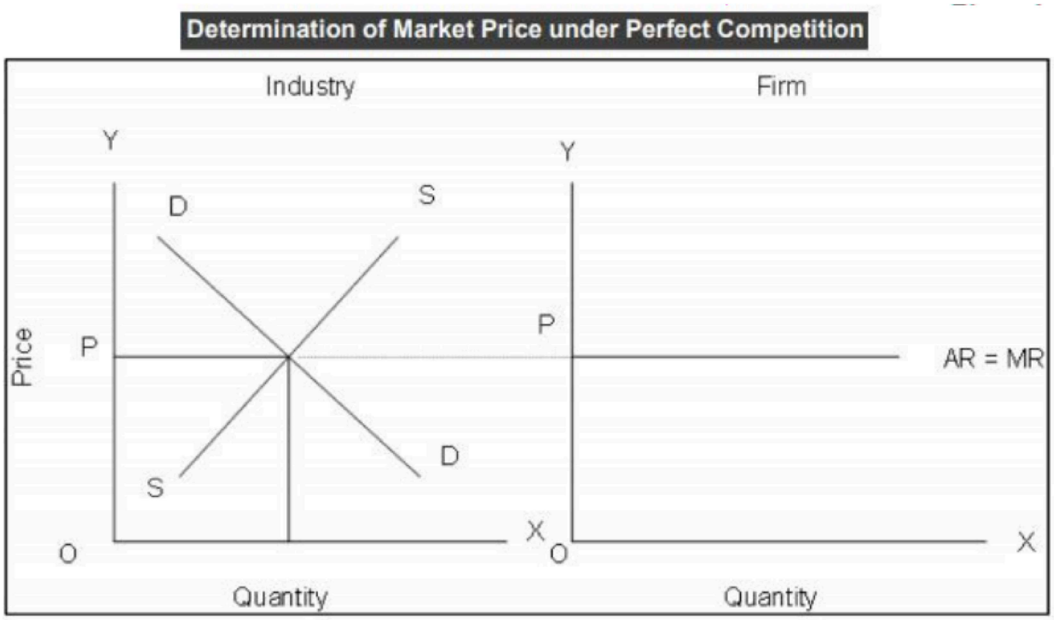
In a perfectly competitive market, a firm can earn a normal profit, super-normal profit, or it can bear a loss. At the equilibrium quantity, if the average cost is equal to the average revenue, then the firm is earning a normal profit.

PART - B

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

In a perfectly competitive market, a firm cannot change the price of a product by modifying the quantity of its output. Further, the input and cost conditions are given.

Therefore, the firm can alter the quantity of its output without changing the price of the product. We know that a firm is in equilibrium when its profits are



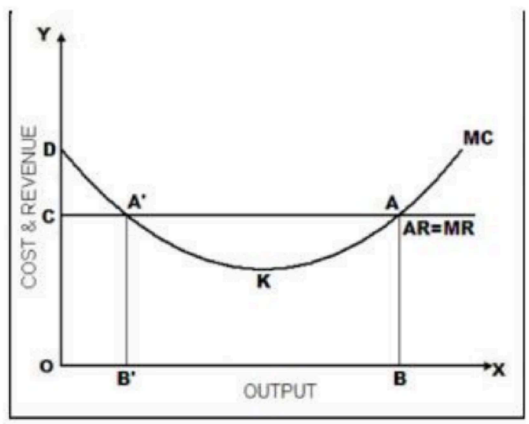
maximum, which relies on the cost and revenue conditions of the firmIn perfect competition, the equilibrium of the market's demand and supply determines the price.

All firms receive this price in a perfectly competitive market. Also, firms are the price- takers and the industry is the price-maker. The Average Revenue (AR) Curve is the demand curve of the firm as it can sell any quantity it wants at the market price

Short-run Equilibrium of a Competitive Firm. In the short-run, there the following assumptions:

The price of the product is given and the firm can sell any quantity at that price. The size of the plant of the firm is constant. The firm faces given short-run cost curves. We know that the necessary and sufficient conditions for the equilibrium of a firm are: MC = MRMC curve cuts the MR curve from belowIn other words, the MC curve must intersect the MR curve from below and after the intersection lie above the MR curve. In simpler terms, the firm must keep adding to its output as long as MR>MC.This is because additional output adds more revenue than costs and increases its profits. Further, if MC=MR, but the firm finds that by adding to its output, MC becomes smaller than MR, then it must keep increasing its output.

Equilibrium of a Firm using MC and MR Curves



Since it is a perfectly competitive market, the demand for the product of the firm is perfectly elastic. Further, it can sell all its output at the market price. Therefore, its demand curve runs parallel to the X-axis throughout its length and its MR curve coincides with the AR curve

In the short-run, the firm cannot avoid fixed costs. Even if the production is zero, the firm must incur these costs. Therefore, the firm cannot avoid losses by not producing and continues producing as long as its losses do not exceed its fixed costs. In other words, a firm produces as long as its average price equals or exceeds its AVC

In a perfectly competitive market, a firm can earn a normal profit, super-normal profit, or it can bear a loss. At the equilibrium quantity, if the average cost is equal to the average revenue, then the firm is earning a normal profit.

On the other hand, if the average cost is greater than the average revenue, then the firm is bearing a loss. However, if the average cost is less than average revenue, then the firm is earning super-normal profits.

Long run

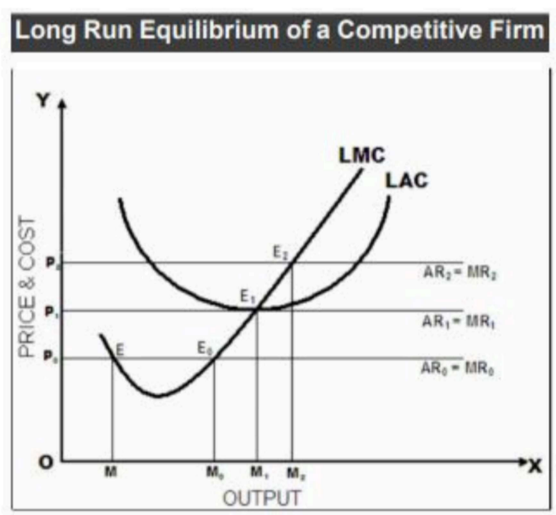
Long-term is the period in which the firm can vary all of its inputs. There are no fixed costs and therefore, the AFC or Average Fixed Cost curve vanishes. Also, the Average Cost (AC) curve represents the Average Total Cost (ATC) curve. Further, since the firm can vary all its inputs, it can close down and leave the industry.

We know that in the long-run, the AC curve which is formed by its short-run AC curves is also U-shaped. This means that up to a certain limit, the firm experiences increasing returns and the AC curve slopes downwards.

A phase of constant returns follows in which the AC curve neither rises nor falls. Subsequently, diminishing returns to scale phase starts in which the AC curve slopes upwards.

In the long-run, new firms can also enter the industry. This is the free entry and exit feature which has two implications:

There is no compulsion on the firm to operate under losses and it can leave the industry. No firm can earn super-normal profits. This is because when a firm earns super-normal profits, it attracts new firms to the industry. This leads to an increase in the supply which results in lowering the prices and normalizing of profits.



The figure above describes the determination of long-run equilibrium under perfect competition. As you can see, the output is measured along the X-axis and the costs along the Y-axis. Also, the firm is a price-taker.

Further, its AR curve runs parallel to the X-axis and the MR curve coincides with it

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

A monopoly refers to when a company and its product offerings dominate one sector or industry. Monopolies can be considered an extreme result of free-market capitalism in that absent any restriction or restraints, a single company or group becomes large enough to own all or nearly all of the market (goods, supplies, commodities, infrastructure, and assets) for a particular type of product or service. The term monopoly is often used to describe an entity that has total or near-total control of a market.Monopolies typically have an unfair advantage over their competition since they are either the only provider of a product or control most of the market share or customers for their product

A Monopolist being the only producer and seller of that commodity can determine its price and the quantity of its production or supply. He cannot do both the things simultaneously. Either he fixes the price and leaves the output to be determined by the consumer demand at that price or he can fix the output to be produced and leave the price to be determined by the consumers' demand for his product. But it is a common experience that he leaves the price to the market mechanism and determines the volume of output. Under no circumstances, he will be ready to bear losses.

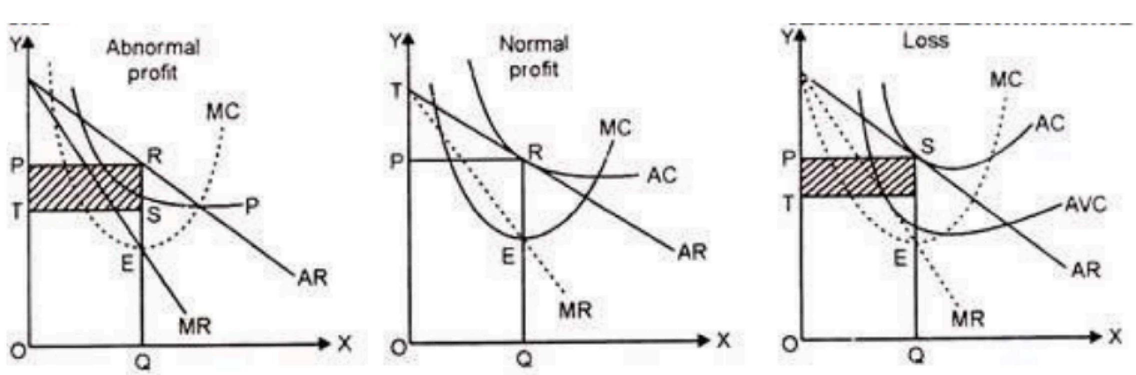
If, in a short period, the cost of production of a commodity is zero, he will go on producing it to the extent or so long the marginal revenue from the sale of that commodity does not fall to zero. As soon as the marginal reserve is zero he will not increase its supply

Some economists think that, in a short period, three different situations may arise before the monopolist:

(i) When the monopolist earns abnormal profits,

(ii) When he gets only normal profits, and

(iii) When he suffers losses



PRODUCTION

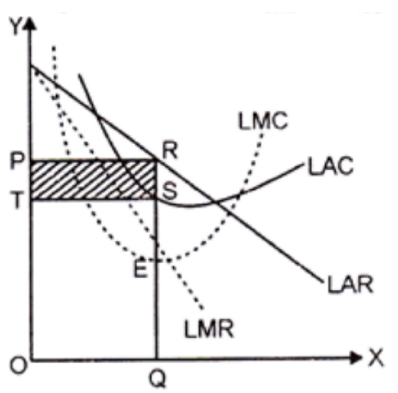
On the point E the firm is in equilibrium when MC = MR. Thereafter MC curve starts to rise. Under the condition, OP is the price and OQ is the 'total production' of the commodity so determined. In order to calculate profits or losses, we will have to measure the difference between AR and AC. If AR > AC, the difference between the two is profit per unit and by multiply it with total number of units produced we can get total profit.

In the first figure RQ = OP is the price, TO is the cost of production per unit. Thus, RS = PT is unit for profit. On the OQ quantity of production, total profit is PTSR shaded area which is abnormal profit. In the second figure RQ = OP is the determined price and RQ is the average cost. Under this condition, there will be only normal profit.

In the figure three also price per unit is RQ = OP but cost per unit is SQ. Thus, SR (TP) is loss per unit. As a result TPRS shaded area will be the total loss. But this loss is only short period phenomenon. In the long period, this loss will disappear, under that condition and situation, only profit will be earned.

Determination of Price in the Long Period

In the long period the monopolist introduces changes in his equipment's and techniques of production. During this period in order to gain excess profit, he will change efficiency and capacity of his resources according to his need. But the determination of the quantity of production follows, the same line as under short period.



In this figure LMC and LMR intersect each other at the point E and after that LMC goes on rising. Thus OQ production is determined and OP is the price. But average cost is SQ. So profit per unit is RS and at OQ output the total profit is PTSR.

Under Price Competition AR =MR, where-as under Monopoly MR <AR.

Under perfect competition price is determined by the interaction of total demand and supply. This price is acceptable to all the firms in the industry. No firm can change this price. So, average revenue and marginal revenue, at every level of production, will be constant and equal. Their curves are parallel to X-axis.
Under Monopoly, to sell every additional unit of the commodity price will have to be lower. In this way, with the sale of every additional unit, average and marginal income goes on falling. But the decrease in average revenue is relatively less sharp than the decrease in marginal revenue. It is because marginal revenue is limited to one unit, whereas in case of average revenue, the decrease price is divided by the number of units. Therefore, the fall in average revenue has relatively less slope. That is the reason why marginal revenue is less than average revenue.

3.Explain the role of time factor in the determination of price.Also explain price- O/P determination in case of perfect competition.
refer Part A -2nd click here

4.Explain the differences between perfect competition and monopoly.

The basic difference between Perfect Competition and Monopoly is that perfect competition involves a large number of sellers with a large number of buyers whereas a monopoly market has one single seller for a large number of buyers
Meaning of Perfect Competition:-It refers to the market in which there are many firms selling a certain homogenous product.
Meaning of Monopoly:-A monopoly market is a market structure in which a single firm is a sole producer of a product for which there are no close substitutes available in the market. Since there is only one seller in the market, it eliminates the rivals and direct competitors. Therefore, the monopolist has full control over its price. Hence,the seller in this market is not known as a price maker. The seller, by itself,determines the price and the quantity to be sold by him in the market.

Difference between Perfect Competition and Monopoly

Basis of Difference	Perfect Competition	Monopoly
Meaning	It refers to the market in which there are many firms selling a certain homogenous product.	Monopoly market is a market structure in which a single firm is a sole producer of a product for which there are no close substitutes available in the market
Output	Price is equal to the marginal cost at the equilibrium output.	Price is greater than the average cost at equilibrium output.
Equilibrium	It is possible only when MR=MC and MC cut the MR curve from below.	Equilibrium can be realized whether the MC is rising, constant or falling.
Barriers for entry of new firms	Here, there are no restrictions or barriers for new firms to enter the market.	It has strong restrictions for entry of new firms in the market.
Price Discrimination	There is no price discrimination by sellers as the prices are determined by supply and demand forces.	The monopolist can charge different prices from different groups of buyers.
Supply Curve	Here, the supply curve can be identified as all firms sell the desired quantity at the prevailing price.	In a monopoly, the supply curve cannot be known because of price discrimination.
Control over Price	Here, the sellers don't have any control over the price.	In this market, the seller has full control over the price.
Sellers are known as	In this market, the sellers are known as price takers.	In this market, the sellers are price makers.
Degree of Competition	This market has strong competition in the market.	There is no competition in the market.
Close Substitutes	In this market, the close substitutes are available.	There are no close substitutes of the products in this market.
Number of sellers	There are a large number of sellers with a large number of Buyers offering homogenous products.	There is only one single seller of a commodity with a large number of buyers.

5. Distinguish between perfect & imperfect markets. And What are the different market situations in imperfect competition.

Based on competition, the market structure has been classified into two broad categories like Perfectly competitive and Imperfectly competitive. Perfect Competition is not found in the real world market because it is based on many assumptions. But an Imperfect Competition is associated with a pracBased on competition, the market structure has been classified into two broad categories like Perfectly competitive and Imperfectly competitive. Perfect Competition is not found in the real world market because it is based on many assumptions. But an Imperfect Competition is associated with a practical approach.

The type of market structure decides the market share of a firm in the market. If there exists a single firm, it will serve the entire market, and the demand of the customers are satisfied with that firm only. But if we increase the number of firms to two, the market will also be shared by the two. Similarly, if there are about 100 small firms in the market, the market is shared by all of them in proportion.

Therefore, it is the market structure, which affects the market. So here we are going to describe the differences between perfect competition and imperfect competition, in economicstical approach.

BASIS FOR COMPARISON	PERFECT COMPETITION	IMPERFECT COMPETITION
Meaning	Perfect Competition is a type of competitive market where there are numerous sellers selling homogeneous products or services to numerous buyers.	Imperfect Competition is an economic structure, which does not fulfill the conditions of the perfect competition.
Nature of concept	Theoretical	Practical
Product Differentiation	None	Slight to Substantial
Players	Many	Few to many
Restricted entry	No	Yes
Firms are	Price Takers	Price Makers

When at least one condition of a perfect market is not met, it can lead to an imperfect market. Every industry has some form of imperfection. Imperfect competition can be found in the following structures:

1) **Monopoly:**

   This is a structure in which there is only one (dominant) seller. Products offered by this entity have no substitutes. These markets have high barriers to entry and a single seller who sets the prices on goods and services. Prices can change without notice to consumers.

2) **Oligopoly:**

   This structure has many buyers but few sellers. These few players in the market may bar others from entering. They may set prices together or, in the case of a cartel, only one takes the lead to determine the price for goods and services while the others follow.

3) **Monopolistic Competition:**

   In monopolistic competition, there are many sellers who offer similar products that can't be substituted. Businesses compete with one another and are price makers, but their individual decisions do not affect the other.

4) **Monopsony and Oligopsony:**

   These structures have many sellers, but few buyers. In both cases, the buyer is the one who manipulates market prices by playing firms against one another.

6."Perfect competition results in larger O/P with lower price than a monopoly" Explain the statement.

A monopolistic market and a perfectly competitive market are two market structures that have several key distinctions in terms of market share, price control, and barriers to entry. In a monopolistic market, there is only one firm that dictates the price and supply levels of goods and services, and that firm has total market control. In contrast to a monopolistic market, a perfectly competitive market is composed of many firms, where no one firm has market control.

In a monopolistic market, firms are price makers because they control the prices of goods and services. In this type of market, prices are generally high for goods and services because firms have total control of the market. Firms have total market share, which creates difficult entry and exit points. Since barriers to entry in a monopolistic market are high, firms that manage to enter the market are still often dominated by one bigger firm.

In a market that experiences perfect competition, prices are dictated by supply and demand. Firms in a perfectly competitive market are all price takers because no one firm has enough market control. Unlike a monopolistic market, firms in a perfectly competitive market have a small market share. Barriers to entry are relatively low, and firms can enter and exit the market easily. Contrary to a monopolistic market, a perfectly competitive market has many buyers and sellers, and consumers can choose where they buy their Goods and sevices.

Under perfect competition price is equal to marginal cost at the equilibrium output. While under monopoly, the price is greater than average cost

The difference between price and marginal cost under monopoly results in super-normal profits to the monopolist. Under perfect competition, a firm in the long run enjoys only normal profits

Monopoly price is higher than perfect competition price. In long period, under perfect competition, price is equal to average cost. In monopoly, price is higher as is shown in Fig. 11. The perfect competition price is OP1, whereas monopoly price is OP. In equilibrium, monopoly sells ON output at OP price but a perfectly competitive firm sells higher output ON1 at lower price OP1.

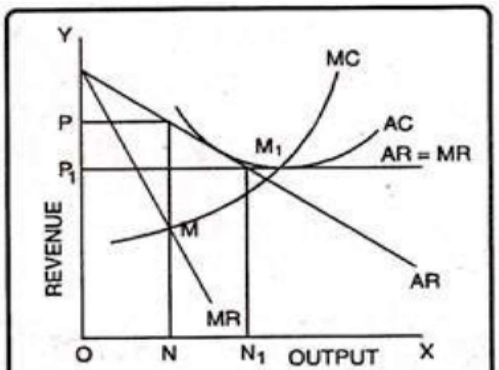


Fig. 11.

Comparison of Output:Perfect competition output is higher than monopoly price. Under perfect competition the firm is in equilibrium at point M1 (As shown in Fig. 11 (a)), AR = MR = AC = MC are equal. The equilibrium output is ON1. On the other hand monopoly firm is in equilibrium at point M where MC=MR. The equilibrium output is ON. The monopoly output is lower than perfectly competitive firm output

7.Recall the features of Monopoly.

In a monopoly market, usually, there is a single firm which produces and/or supplies a particular product/ commodity. It is fair to say that such a firm constitutes the entire industry. Also, there is no distinction between the firm and the industry

Features of a monopoly market:

1. Single Seller of the Product:

The following are the features of monopoly:

- **Single person or a firm:** A single person or a firm controls the total supply of the commodity. There will be no competition for monopoly firm. The monopolist firm is the only firm in the whole industry.
- **No close substitute:** The goods sold by the monopolist shall not have closely competition substitutes. Even if price of monopoly product increase people will not go in far substitute. For example: If the price of electric bulb increase slightly, consumer will not go in for kerosene lamp.

- ➢ **Large number of Buyers:** Under monopoly, there may be a large number of buyers in the market who compete among themselves
- ➢ **Price Maker:** Since the monopolist controls the whole supply of a commodity, he is a price-maker, and then he can alter the price.
- ➢ **Supply and Price:** The monopolist can fix either the supply or the price. He cannot fix both. If he charges a very high price, he can sell a small amount. If he wants to sell more, he has to charge a low price. He cannot sell as much as he wishes for any price he pleases.
- ➢ **Downward Sloping Demand Curve:** The demand curve (average revenue curve) of monopolist slopes downward from left to right. It means that he can sell more only by lowering price.

8. Explain the following (a)Monopoly (B) Duopoly (c)Oligopoly (d) imperfect competition.

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

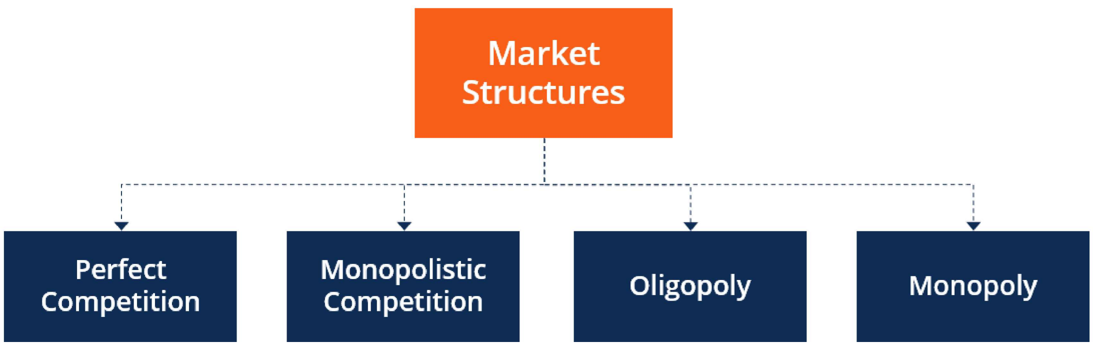
Duopoly: Duopoly refers to a market situation in which there are only two sellers. As there are only two sellers any decision taken by one seller will have reaction from the other Eg. Coca-Cola and Pepsi. Usually these two sellers may agree to co- operate each other and share the market equally between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

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

Imperfect market: An imperfect market refers to any economic market that does not meet the rigorous standards of the hypothetical perfectly—or purely—competitive market. Pure or perfect competition is an abstract, theoretical market structure in which a series of criteria are met.

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

Market structure, in economics, refers to how different industries are classified and differentiated based on their degree and nature of competition for goods and services. It is based on the characteristics that influence the behavior and outcomes of companies working in a specific market



Some of the factors that determine a market structure include the number of buyers and sellers, ability to negotiate, degree of concentration, degree of differentiation of products, and the ease or difficulty of entering and exiting the market

Market structure refers to how different industries are classified and differentiated based on their degree and nature of competition for services and goods.The four popular types of market structures include perfect competition, oligopoly market, monopoly market, and monopolistic competition.Market structures show the relations between sellers and other sellers, sellers to buyers, or more

Types of Market Structures

1. **Perfect Competition:**

   Perfect competition occurs when there is a large number of small companies competing against each other. They sell similar products (homogeneous), lack price influence over the commodities, and are free to enter or exit the market. Consumers in this type of market have full knowledge of the goods being sold.

They are aware of the prices charged on them and the product branding. In the real world, the pure form of this type of market structure rarely exists. However, it is useful when comparing companies with similar features. This market is unrealistic as it faces some significant criticisms described below.

No incentive for innovation: In the real world, if competition exists and a company holds a dominant market share, there is a tendency to increase innovation to beat the competitors and maintain the status quo. However, in a perfectly competitive market, the profit margin is fixed, and sellers cannot increase prices, or they will lose their customers.

There are very few barriers to entry: Any company can enter the market and start selling the product. Therefore, incumbents must stay proactive to maintain market share.

2. **Monopolistic Competition:**

   Monopolistic competition refers to an imperfectly competitive market with the traits of both the monopoly and competitive market. Sellers compete among themselves and can differentiate their goods in terms of quality and branding to look different. In this type of competition, sellers consider the price charged by their competitors and ignore the impact of their own prices on their competition. When comparing monopolistic competition in the short term and long term, there are two distinct aspects that are observed. In the short term, the monopolistic company maximizes its profits and enjoys all the benefits as a monopoly. The company initially produces many products as the demand is high. Therefore, its Marginal Revenue (MR) corresponds to its Marginal Cost (MC). However, MR diminishes over time as new companies enter the market with differentiated products affecting demand, leading to less profit

3.Oligopoly:

An oligopoly market consists of a small number of large companies that sell differentiated or identical products. Since there are few players in the market, their competitive strategies are dependent on each other.

For example, if one of the actors decides to reduce the price of its products, the action will trigger other actors to lower their prices, too. On the other hand, a price increase may influence others not to take any action in the anticipation consumers will opt for their products. Therefore, strategic planning by these types of players is a must.

In a situation where companies mutually compete, they may create agreements to share the market by restricting production, leading to supernormal profits. This holds if either party honors the Nash equilibrium state and neither is tempted to engage in the prisoner's dilemma. In such an agreement, they work like monopolies. The collusion is referred to as cartels.

4.Monopoly:

In a monopoly market, a single company represents the whole industry. It has no competitor, and it is the sole seller of products in the entire market. This type of market is characterized by factors such as the sole claim to ownership of resources, patent and copyright, licenses issued by the government, or high initial setup costs. All the above characteristics associated with monopoly restrict other companies from entering the market. The company, therefore, remains a single seller because it has the power to control the market and set prices for its goods.

10. Monopoly is disappearing from markets. Do you agree with this statement? Do you advocate for monopoly to continue in market situations?

Part A-4 click here

11. Define a joint stock company & explain its basic features,advantages & disadvantages.

The simplest way to describe a joint stock company is that it is a business organization that is owned jointly by all its shareholders. All the shareholders own a certain amount of stock in the company, which is represented by their shares. Professor Haney defines it as "a voluntary association of persons for profit, having the capital divided into some transferable shares, and the ownership of such shares is the condition of membership of the company." Studying the features of a joint stock company will clarify its structure.

Features of a Joint Stock Company:

1] Artificial Legal Person:

A company is a legal entity that has been created by the statues of law. Like a natural person, it can do certain things, like own property in its name, enter into a contract, borrow and lend money, sue or be sued, etc. It has also been granted certain rights by the law which it enjoys through its board of directors.

However, not all laws/rights/duties apply to a company. It exists only in the law and not in any physical form. So we call it an artificial legal person.

2] Separate Legal Entity:

Unlike a proprietorship or partnership, the legal identity of a company and its members are separate. As soon as the joint stock company is incorporated it has its own distinct legal identity. So a member of the company is not liable for the company. And similarly, the company will not depend on any of its members for any business activities.

3] Incorporation:

For a company to be recognized as a separate legal entity and for it to come into existence, it has to be incorporated. Not registering a joint stock company is not an option. Without incorporation, a company simply does not exist.

4] Perpetual Succession:

The joint stock company is born out of the law, so the only way for the company to end is by the functioning of law. So the life of a company is in no way related to the life of its members. Members or shareholders of a company keep changing, but this does not affect the company's life.

5] Limited Liability:

This is one of the major points of difference between a company and a sole proprietorship and partnership. The liability of the shareholders of a company is limited. The personal assets of a member cannot be liquidated to repay the debts of a company.

A shareholders liability is limited to the amount of unpaid share capital. If his shares are fully paid then he has no liability. The amount of debt has no bearing on this.

Only the companies assets can be sold off to repay its own debt. The members cannot be made to pay up.

6] Common Seal:

A company is an artificial person. So its day-to-day functions are conducted by the board of directors. So when a company enters any contract or signs an agreement, the approval is indicated via a common seal. A common seal is engraved seal with the company's name on it.

So no document is legally binding on the company until and unless it has a common seal along with the signatures of the directors.

7] Transferability of Shares:

In a joint stock company, the ownership is divided into transferable units known as shares. In case of a public company the shares can be transferred

Advantages

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

Disadvantages:

- **Formation of company is a long drawn procedure:** Promoting a joint stock company involves a long drawn procedure. It is expensive and involves large number of legal formalities.
- **High degree of government interference:** The government brings out a number of rules and regulations governing the internal conduct of the operations

of a company such as meetings, voting, audit and so on, and any violation of these rules results into statutory lapses, punishable under the companies act.

- **Inordinate delays in decision-making:** As the size of the organization grows, the number of levels in organization also increases in the name of specialization. The more the number of levels, the more is the delay in decision-making. Sometimes, so-called professionals do not respond to the urgencies as required. It promotes delay in administration, which is referred to 'red tape and bureaucracy'.
- **Lack or initiative:** In most of the cases, the employees of the company at different levels show slack in their personal initiative with the result, the opportunities once missed do not recur and the company loses the revenue.
- **Lack of responsibility and commitment:** In some cases, the managers at different levels are afraid to take risk and more worried about their jobs rather than the huge funds invested in the capital of the company lose the revenue.
- **Lack of responsibility and commitment:** In some cases, the managers at different levels are afraid to take risk and more worried about their jobs rather than the huge funds invested in the capital of the company. Where managers do not show up willingness to take responsibility, they cannot be considered as committed. They will not be able to handle the business risks.

12.Recall (a) Sole trader (b)Stationery corporation

Sole trader:

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

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

Features

- It is easy to start a business under this form and also easy to close.
- He introduces his own capital. Sometimes, he may borrow, if necessary
- He enjoys all the profits and in case of loss, he lone suffers.
- He has unlimited liability which implies that his liability extends to his personal properties in case of loss.
- He has a high degree of flexibility to shift from one business to the other.
- Business secretes can be guarded well
- There is no continuity. The business comes to a close with the death, illness or insanity of the sole trader. Unless, the legal heirs show interest to continue the business, the business cannot be restored.

Advantages

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

Disadvantages

1. **Unlimited liability:** The liability of the sole trader is unlimited. It means that the sole trader has to bring his personal property to clear off the loans of his business. From the legal point of view, he is not different from his business.
2. **Limited amounts of capital:** The resources a sole trader can mobilize cannot be very large and hence this naturally sets a limit for the scale of operations.
3. **No division of labor:** All the work related to different functions such as marketing, production, finance, labor and so on has to be taken care of by the sole trader himself. There is nobody else to take his burden. Family members and relatives cannot show as much interest as the trader takes

.

4. **Uncertainty:** There is no continuity in the duration of the business. On the death, insanity of insolvency the business may be come to an end.
5. **Inadequate for growth and expansion:** This form is suitable for only small size, one-man-show type of organizations. This may not really work out for growing and expanding organizations.

Corporation - This is one of the best-known and most widely used business forms. The government views a corporation as a separate legal entity from its owners.

Therefore, a corporation provides liability protection for its owners or shareholders. A corporation is liable for its own debts and can only be held liable for its assets (which is the amount the owners have invested in the corporation's stock).

Shareholders are not responsible for debts of corporation.

The corporation is subject to federal and state taxation. Corporate income tax is taxed at the corporate level. If dividends are distributed to shareholders, it is taxed again at the individual level. A small business that's incorporated may avoid this double taxation by paying a salary to the employee shareholder. Earnings can be used for future investment in the company or paid to shareholders in the form of a cash or stock dividend. A corporation has a perpetual life. This means it goes on even if the owner(s) sell the business or die. Forming a corporation is more complicated and costly than forming other types of businesses. Articles of incorporation must be filed with the office of secretary of state in the state in which the corporation is organized. This is not necessarily the state in which the corporation will do business. However, the certificate of incorporation must be recorded in the states in which you do business. The corporation must have its own name. It must be unique and not used by another corporation.Ownership of a corporation can be transferred by sale of all or a portion of the shares. Owners can be added by selling authorized stock from the corporation or by having the current owners sell some of their stock. Small businesses that are corporations are often owned by a small group of shareholders that all work in the business.

13. Explain basic features of Government Company from public enterprise.

Government Company is a company or an organization in which at least 51% of the paid up share capital is held by the central government or the state government or partly by both central and state government. These are many government companies, few of them are, Steel Authority of India Limited, Bharat Heavy Electricals Limited, Coal India Limited, State Trading Corporation of India, etc.

- The public sector companies in India were incorporated into two main objectives: To achieve more equity in the distribution of wealth and income amongst the citizens of the country.
- To gain the momentum in the growth of the nation

Features of a Government Company:

- It is a separate legal entity.
- It is incorporated under Companies Act 1956 & 2013.
- The management is governed and regulated by the provisions of Companies Act.
- The Memorandum of Association and Articles of Association govern the appointment of employees.
- A government company gets its funding from government shareholding and other private shareholdings. The company can also raise money from the capital market.
- A government company is audited by the agency appointed by the central government. This agency is mainly Comptroller and Auditor General of India (C&AG)

Merits of a Government Company:

- To incorporate a government company, all the provisions of the Companies Act are to be followed.
- The government organization enjoys all autonomy in management decisions and flexibility in day to day activities.
- These companies control the local market and sustain it to curb the unhealthy business practices.

Limitations of a Government Company

- These companies face a lot of government interference and involvement of government officials, ministers, and politicians.
- As these companies are financed by the government, so these companies evade all constitutional responsibilities of not answering to the parliament.
- The efficient operations of the company are hampered, as the board of the

company comprises mainly of politicians and civil servants, who have more emphasis and interest in pleasing their political party co-workers or owners and less concentrated on growth and development of the company.

14. What do you mean by sole proprietorship? Explain its meant and limitations.

A Sole proprietorship can be explained as a kind of business or an organization that is owned, controlled and operated by a single individual who is the sole beneficiary of all profits or loss, and responsible for all risks. It is a popular kind of business, especially suitable for small business at least for its initial years of operation. This type of businesses is usually a specialized service such as hair salons, beauty parlors, or small retail shops

Features of Sole Proprietorship:

(1) Formation and Closure:

This type of business organization is formed by the owner himself.No legal conventions are obliged to start the sole proprietorship form of organization.In some instances, the legal formalities are required or the owner should have a particular license or a certificate to run the business.The owner can close the business at his own discretion.Example: Goldsmith or a person running a medical shop should have a license to run this type of business.

(2) Liability:

In the sole proprietorship business, the sole owner has unlimited liability.In this case, the owner is himself liable to pay all the liabilities. If he takes a loan for its business then he will be liable for all the debts.Hence, he is personally liable for all the debt which can be recovered by his personal estate when funds are insufficient.Example: A loan taken by the owner of the sweet shop is solely responsible for the repayment of the loan to the bank.

(3) Sole Risk Bearer and Profit Recipient:

A sole proprietor is only the one who bears all risks which are related to its business.All the profits or losses which are earned from the business are to be enjoyed by the sole owner.

(4) Control:

As all the rights and responsibilities lie with the sole proprietor that is why he controls all the business activities.No one can interfere in the business activities of a sole proprietor.Hence, only the sole proprietor can modify his plans accordingly.

(5) No Separate Entity:

According to the accounting system, the owner and the business are considered as two separate entities.But the law does not make any distinction between the sole trader and its business.Hence, without the sole trader, the business has no identity because he is the only person who performs all the business activities.

(6) Lack of Business Continuity:

Death, imprisonment, physical ailment, insanity or bankruptcy of the sole proprietor will directly affect the business or it may cause shutting down of the business.In the case of the beneficiary, successor or legal heir of sole proprietor, he can run the business on behalf of the proprietor

Advantages of Sole Proprietorship:

Some of the popular advantages of a sole proprietorship are:

Quick decision making– A sole proprietor has the freedom to make any decision. Therefore, the decision would be prompt as they don’t have to take the permission of others.

Confidentiality of information- Being only the owner of the business, it allows him/her to keep all the business information to be private and confidential.

Direct incentive- A sole proprietor directly has the right to have all the profit or benefits of a company.

Sense of accomplishment- He/she can have the personal satisfaction associated with working without any guidance or alone.Ease of formation and closure- A single proprietor can enter the business with minimum legal formalities.

Limitations of a Sole Proprietorship:

Some of the primary limitations of a sole proprietorship are as follows:

(1) Limited Resources:

Resources of a sole proprietor are limited to his savings and borrowings from the relatives.Banks also hesitate or deny giving the long term loans or extend the limit of long term loans due to the weak financial position of the business.Lack of all these resources results in hindrance in the growth of the sole proprietorship businessAbove mentioned are the reason why the business generally remains small.

(2) Life of a Business Concern:

The owner and its business is the same entity and due to lack of successor or heir, the life of the business is limited.Due to death, insolvency, illness of a proprietor gives a detrimental impact on the business which results in closure of the business.

(3) Unlimited Liability:

The major demerit of a sole proprietorship is that the owner has unlimited liability.If the sole owner becomes fails to pay the debts, due to the failure of a business, the creditors would not only claim from business assets but also from his personal estate.Taking a large amount of loan is too risky and also put the burden on the sole owner of the business.Hence, this is the reason why sole traders do not intend to take the risk for the survival and growth of the business.

(4) Limited Managerial Ability:

The sole proprietor has to accept all the responsibilities to carry out its business.Sometimes the proprietor has to perform all the managerial functions like sales, purchase, marketing, selling, dealings with clients, etc.He may not be able to employ and retain aspiring employees

15. Define partnership from of business. Explain its salient features.

Partnership is an improved from of sole trader in certain respects. Where there are like minded persons with resources, they can come together to do the business and share the profits/losses of the business in an agreed ratio. Persons who have entered into such an agreement are individually called ‘partners’ and collectively called ‘firm’. The relationship among partners is called a partnership.Indian Partnership Act, 1932 defines partnership as the relationship between two or more persons who agree to share the profits of the business carried on by all or any one of them acting for all

Features

1. Relationship: Partnership is a relationship among persons. It is relationship resulting out of an agreement
2. Two or more persons: There should be two or more number of persons.
3. There should be a business: Business should be conducted.
4. Agreement: Persons should agree to share the profits/losses of the

business

5. Carried on by all or any one of them acting for all: The business can be carried on by all or any one of the persons acting for all. This means that the business can be carried on by one person who is the agent for all other persons. Every partner is both an agent and a principal. Agent for other partners and principal for himself. All the partners are agents and the 'partnership' is their principal.

The following are the other features:

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

(b) **Number of partners:** According to the Indian Partnership Act, the minimum number of partners should be two and the maximum number if restricted, as given below:• 10 partners is case of banking business• 20 in case of non-banking business

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

(d) **Personal contact with customers:** The partners can continuously be in touch with the customers to monitor their requirements.(e) Flexibility: All the partners are like minded persons and hence they can take any decision relating to business

16.Explain the features of the following (a) public company(b) Government Company (c)Private Company.

Features:

Public company

A public Limited Company is a company with limited liability and offers shares to the general public. Further the stock of Public Limited Company can be acquired by anyone through IPO or via trades.

Features of a Public Limited CompanyPaid-up Capital – There is no requirement of a minimum paid-up capital. Hence, you can incorporate a public company with any amount of capital.

Minimum number of Directors – You need a minimum of 3 directors to incorporate a public company with a maximum of 15 directors. However, no. of directors can exceed 15 after obtaining Special Resolution.

Minimum number of Shareholders – You need a minimum of 7 members to incorporate a public company.

Name of the company – Every public company must have the word "Limited" at the end of the company name.

Transfer of shares – There are no restrictions on the transfer of shares in a public company.

Liability – The liability of each member of a public company cannot exceed the amount of investment in shares of the member. This limit is non-extendable.

Issue of securities – There is no restriction on the issue of securities to the public. The company can issue the same via an initial public offer (IPO) or a bonus issue through private placement. Also, the company needs to issue the securities in the Dematerialised format.

Issue of securities – There is no restriction on the issue of securities to the public. The company can issue the same via an initial public offer (IPO) or a bonus issue through private placement. Also, the company needs to issue the securities in the Dematerialised format.

Quorum – Every public company must have at least five members personally present to form a quorum to constitute the meeting if the number of members as on the date of the meeting is not more than one thousand.

Managerial Remuneration – In a public company, the managerial remuneration paid to the director and manager should not exceed 11% of the net profits of the company subject to other provisions of the law.

Government Company

The following are the features of a government company:

1. **Like any other registered company:** It is incorporated as a registered company under the Indian companies Act. 1956. Like any other company, the government company has separate legal existence. Common seal, perpetual succession, limited liability, and so on. The provisions of the Indian Companies Act apply for all matters relating to formation, administration and winding up. However, the government has a right to exempt the application of any provisions of the government companies.

2. **Shareholding:** The majority of the share are held by the Government, Central or State, partly by the Central and State Government(s), in the name of

the President of India, It is also common that the collaborators and allotted some shares for providing the transfer of technology.

3. **Directors are nominated:** As the government is the owner of the entire or majority of the share capital of the company, it has freedom to nominate the directors to the Board. Government may consider the requirements of the company in terms of necessary specialization and appoints the directors accordingly.

4. **Administrative autonomy and financial freedom:** A government company functions independently with full discretion and in the normal administration of affairs of the undertaking.

5. **Subject to ministerial control:** Concerned minister may act as the immediate boss. It is because it is the government that nominates the directors, the minister issue directions for a company and he can call for information related to the progress and affairs of the company any time

Private company

No minimum capital required: There was a minimum paid-up share capital requirement of Rs. 1 lakh previously, but that is omitted now.

Minimum 2 and maximum 200 members: A private company can have a minimum of just two members (but just one is enough if it is a One Person Company), and a maximum of up to 200 members.

Transferability of shares restricted: Private companies cannot freely transfer their shares to the public like public companies. This is why stock exchanges never list private companies."Private Limited": All private companies must include the words "Private Limited" or "Pvt. Ltd." in their names.

Privileges and exemptions: Since private companies do not freely transfer their shares and involve limited interest by members, the law has granted them several exemptions that public companies do not enjoy.

17.Outline the need of public enterprises? Explain the recent achievement of public enterprises.

Public enterprises are playing an important role in the economic development of developing countries. They are involved in various sectors of economy. They play an active role in fulfilling the needs of people.

1. Planned Development

Most developing countries have five years development plans for economic development. Public enterprises are given specific roles and targets in such plans. Public sector programs are also implemented by public enterprises. They are important for planned development of the country.

2. Infrastructure Development

Infrastructure consists of transport, communication, power, irrigation, drinking water and buildings. They require huge investment and long period is required to complete them. Private sector is not interested in such investment. Public enterprises are important to build infrastructure in the country.

3. Basic and heavy industries development

Iron and steel, electricity, cement, fertilizer, petroleum and telecommunication are examples of basic and heavy industries. They are essential for industrialization of the country. Private sector lacks resources and interest to invest in such industries. Public enterprises are important for the establishment of basic and heavy industries.

Defense production is generally done by public enterprises

4. Public utilities concerns

Public utilities consists of services. They can be water supply, electricity, oil and gas, railways, airlines, public transport and telecommunications. They are essential for public welfare. Government has responsibility to provide such services at reasonable price. Public enterprises are important to provide public utility services at low cost.

5. Balanced development

Government requires balanced development in all regions of the country. Private sector is not attracted to less developed regions because of low economic gain. Public enterprises are important for industrial development of backward regions.

Achievements of public enterprises

1. Set up industries in strategic and core sectors.
2. Provided basic infrastructure facilities at affordable costs.
3. Promoted balanced regional development by setting up industries in backward areas.
4. Restricted the growth of private monopolies and protected consumers

against the evils of private monopolies.

5. Generated large scale employment opportunities and contributed to the reduction in unemployment

18.What is a partnership deed?Discuss the main contents partnership deed.

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

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

19. Explain in basic features of Government Company from of public enterprise.

Part-B -13 click here

20. 'Small is beautiful'. Do you think, this is the reason for the survival of the sole trader form of business organization? Analyze your answer with suitable examples.

PART C

1. Define market? Write few lines on Market Structure

Ans)part b -9 click here

2. What do you understand about Product differentiation?

Ans)Product differentiation (or just differentiation) is a marketing process of differentiating an offering (product or service) from others in the market to make it more appealing to the target audience.

It involves defining the offering's unique position in the market by explaining the unique benefit it provides to the target group. This may also be referred to pinpointing a unique selling proposition of the product to make it stand out from the crowd.

3. Write a short note on Perfect competition

Ans)Perfect competition describes a market structure where competition is at its greatest possible level. To make it more clear, a market which exhibits the following characteristics in its structure is said to show perfect competition:

1. Large number of buyers and sellers
2. Homogenous product is produced by every firm
3. Free entry and exit of firms
4. Zero advertising cost
5. Consumers have perfect knowledge about the market and are well aware of any changes in the market. Consumers indulge in rational decision making.
6. All the factors of production, viz. labor, capital, etc, have perfect mobility in the market and are not hindered by any market factors or market forces.
7. No government intervention

8. No transportation costs

9. Each firm earns normal profits and no firms can earn super-normal profits.

10. Every firm is a price taker. It takes the price as decided by the forces of demand and supply. No firm can influence the price of the product.

4. List out the features of Perfect Market.

Ans)The basic attributes which characterize a perfect market are:

Large number of buyers and sellers, so that no single buyer or seller by their action can influence the total supply or price of the commodity

Homogenous products, such that they are perfect substitutes of each other

Perfect information availability, buyers and sellers have perfect knowledge of the market conditions

No barriers to entry and exit

Uniform or single price as every participant is a price taker and no participant has market power to set prices

No externalities, that means it does not affect third parties which also includes governments and there are no government controls

Rational buyers which means they undertake only those trades which increases the economic utility and not those which decreases it

Perfect mobility of factors that is factors of production can freely move from one industry to another or can freely make adjustments in the long term to changing market conditions

Zero transaction costs are incurred while making an exchange

5. Illustrate about Monopolistic competition.

Ans)Monopolistic competition is a middle ground between monopoly and perfect competition (a purely theoretical state) and combines elements of each. The term was first used in the 1930s by economists Edward Chamberlain and Joan Robinson, to describe the competition between firms with similar, but not identical, product offerings.1 All firms in monopolistic competition have the same relatively low degree of market power; they are all price makers.

In the long run, demand is highly elastic, meaning that it is sensitive to price changes. In the short run, economic profit is positive, but it approaches zero in the long run. Firms in monopolistic competition tend to advertise heavily

6. Define Monopoly Competition and features of monopoly competition.

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

Features of monopoly:

The following are the features of monopoly

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

7. Differentiate between Perfect market and Imperfect market.

Ans) Part b -5

8. Write about Duopoly with examples.

Ans) Duopoly refers to a market situation in which there are only two sellers. As there are only two sellers any decision taken by one seller will have reaction from the other

Eg. Coca-Cola and Pepsi. Usually these two sellers may agree to co-operate each other and share the market equally between them, So that they can avoid harmful competition

9. Define Oligopoly with suitable examples.

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

Examples of oligopoly abound and include the auto industry, cable television, and commercial air travel

10. What is meant by Total revenue, Average revenue and Marginal Revenue.

Ans)Total revenue is the total amount of money a company brings in from selling its goods and services. It determines how well a company is bringing in money from its core operations based on demand and price

Average revenue is referred to as the revenue that is earned per unit of output. In other words, it is the revenue that is obtained by the seller on selling each unit of the commodity. Average revenue of a business is obtained by dividing the total revenue with the total output

Marginal revenue (MR) is the increase in revenue that results from the sale of one additional unit of output. While marginal revenue can remain constant over a certain level of output, it follows from the law of diminishing returns and will eventually slow down as the output level increases,

11. Contrast on the features of sole trader

Ans)

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

12. What is meant by Partnership business?

Ans)Partnership is an improved from of sole trader in certain respects. Where there are like minded persons with resources, they can come together to do the business and share the profits/losses of the business in an agreed ratio. Persons who have entered into such an agreement are individually called 'partners' and collectively called 'firm'. The relationship among partners is called a partnership.Indian Partnership Act, 1932 defines partnership as the relationship between two or more persons who agree to share the profits of the business carried on by all or any one of them acting for all.

13. Differentiate between Sole trader and partnership.

Ans)

Sr.No	Sole trader	Partnership
1	No legal formalities.	Includes legal formalities.
2	Not controlled by legislation.	Controlled by legislation (partnership Act, 1932).
3	One-man business.	More than one person can be involved. It depends upon business type and can have up to 20 members.
4	No need for agreement.	Requires agreement/deed.
5	Maintains secrets.	Maintains secrets.
6	Limited supply of capital.	More supply of capital.
7	No delay in decision making.	Decision making takes a long time.
8	Risk borne by one person.	Risk is shared between partners.
9	Inefficient management due to various reasons.	Efficient management.
10	Sometimes	Renews agreement/deed.

		leads to business continuation.	

14. List out different kinds of Partners.

Ans) The following are the different kinds of partners:

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

15. Outline any three merits and demerits of Partnership.

Ans) Advantages of a partnership include that:

two heads (or more) are better than one

your business is easy to establish and start-up costs are low

more capital is available for the business you'll have greater borrowing capacity

high-calibre employees can be made partners

Disadvantages of a partnership include that:

the liability of the partners for the debts of the business is unlimited each partner is 'jointly and severally' liable for the partnership's debts; that is, each partner is liable for their share of the partnership debts as well as being liable for all the debts there is a risk of disagreements and friction among partners and management.

16. Write a short note on Partner by Estoppel.

Ans)A legal, binding partnership that may occur where previously, no formal partnership agreement was in place. A person who exhibits such conduct, or says words which represent, or allow him to be represented, as a partner in any firm becomes liable to any loans or credits that are obtained by the firm. It is also known as the presumption of partnership.

17. Summarize about the formation of Joint Stock Company.

Ans)Formation of Joint Stock companyThere are two stages in the formation of a joint stock company.

They are:

(a) To obtain Certificates of Incorporation

(b) To obtain certificate of commencement of Business

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

Certificate of commencement of Business: A private company need not obtain the certificate of commencement of business. It can start its commercial operations immediately after obtaining the certificate of Incorporation.The persons who conceive the idea of starting a company and who organize the necessary initial resources are called promoters. The vision of the promoters forms the backbone for the company in the future to reckon with.

18. Recall about unlimited Liability.

Ans)Unlimited liability refers to the full legal responsibility that business owners and partners assume for all business debts. This liability is not capped, and obligations can be paid through the seizure and sale of owners' personal assets, which is different than the popular limited liability business structure.

19. Define market? Write a few lines on Market Structure.

Ans)part c -1

20. What do you understand about Product differentiation?

Part c-2 click here

IARE '24 DISCORD TEAM

II-II

BEFA MODULE 4 SOLUTIONS

AD • UJJWAL • SRINIDHI

CAPITAL BUDGETING

Few Pending

BEFA MODULE 4

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Refer above link ppt for theory

PART A

1. Give various examples of capital budgeting decisions and classify them into specific kinds.

The kinds of Capital Budgeting Decisions are –

- **Accept Reject Decisions:**
  This type of decision is basic to capital budgeting. If the proposed project is accepted by the top management the company proceeds with the investment of funds there in. Alternatively if the project is rejected the company does not make any investment. All those proposals which yield a rate of return or greater than the cost of capital are accepted and the rest are rejected.

- **Mutually Exclusive Decisions:**

It includes all those projects which compete with each other in a way that acceptance of one precludes the acceptance of other or others. Thus some technique has to be used for selecting the best among all and eliminates the other alternatives.

- **Capital Rationing Decisions**

  Capital budgeting decision is a simple process in those firms where funds is not the constraint but in majority of the cases firms have the fixed capital budget. So a large number of projects compete for these limited budgets. So firms ratio them in a manner as to maximize the long run returns situation where in the firm which have more acceptable investments requiring greater amount of finance than is available with the firm. It is concerned with the selection of a group of investments out of many investment proposals ranked in the decision order of the rate of return.

2. What is the importance of capital budgeting? Explain the basic steps involved in evaluating capital budgeting proposals.

Capital budgeting is a process that helps in planning the investment projects of an organization in the long run. It takes all possible considerations into account so that the company can evaluate the profitability of the project. It is useful for evaluating capital investment projects such as purchasing equipment, rebuilding equipment, etc. The benefit from an investment may be in the form of a reduction in cost or in the form of increased revenue. The importance of capital budgeting can be understood from its impact on the business.

Businesses exist to earn profit except for non-profit organizations. Capital budgeting is very important for any business as it impacts the growth & prosperity of the business in the long term. It creates accountability & measurability. Some of the popular capital budgeting techniques are net present value, internal rate of return, payback period, accounting rate of return & profitability index.

Steps involved in evaluating capital budgeting proposals:

1. Identify and evaluate potential opportunities

The process begins by exploring available opportunities. For any given initiative, a company will probably have multiple options to consider. For example, if a company is seeking to expand its warehousing facilities, it might choose between adding on to its current building or purchasing a larger space in a new location. As such, each option must be evaluated to see what makes the most financial and logistical sense. Once the most feasible opportunity is identified, a company should determine the right time to pursue it, keeping in mind factors such as business need and upfront costs.

2. Estimate operating and implementation costs

The next step involves estimating how much it will cost to bring the project to fruition. This process may require both internal and external research. If a company is looking to upgrade its computer equipment, for instance, it might ask its IT department how much it would cost to buy new memory for its existing machines while simultaneously pricing out the cost of new computers from an outside source. The company should then attempt to further narrow down the cost of implementing whichever option it chooses.

3. Estimate cash flow or benefit

Now we determine how much cash flow the project in question is expected to generate. One way to arrive at this figure is to review data on similar projects that have proved successful in the past. If the project won't directly generate cash flow, such as the upgrading of computer equipment for more efficient operations, the company must do its best to assign an estimated cost savings or benefit to see if the initiative makes sense financially.

4. Assess risk

This step involves estimating the risk associated with the project, including the amount of money the company stands to lose if the project fails or can't produce its previously anticipated results. Once a degree of risk is determined, the company can evaluate it against its estimated cash flow or benefit to see if it makes sense to pursue implementation.

5. Implement

If a company chooses to move forward with a project, it will need an implementation plan. The plan should include a means of paying for the project at hand, a method for tracking costs, and a process for recording cash flows or benefits the project generates. The implementation plan should also include a timeline with key project milestones, including an end date if applicable.

3. What is NPV & IRR Compare and contrast the two methods of evaluating capital budgeting proposals.

Net present value (NPV) is the difference between the present value of cash inflows and the present value of cash outflows over a period of time. By contrast, the internal rate of return (IRR) is a calculation used to estimate the profitability of potential investments.

The two capital budgeting methods have the following differences:

- **Outcome:** The NPV method results in a dollar value that a project will produce, while IRR generates the percentage return that the project is expected to create.
- **Purpose:** The NPV method focuses on project surpluses, while IRR is focused on the breakeven cash flow level of a project.
- **Decision support:** The NPV method presents an outcome that forms the foundation for an investment decision, since it presents a dollar return. The IRR method does not help in making this decision, since its percentage return does not tell the investor how much money will be made.

- **Reinvestment rate:** The presumed rate of return for the reinvestment of intermediate cash flows is the firm's cost of capital when NPV is used, while it is the internal rate of return under the IRR method.
- **Discount rate issues:** The NPV method requires the use of a discount rate, which can be difficult to derive, since management might want to adjust it based on perceived risk levels. The IRR method does not have this difficulty, since the rate of return is simply derived from the underlying cash flows.

4. What are major sources of short-term finance?

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

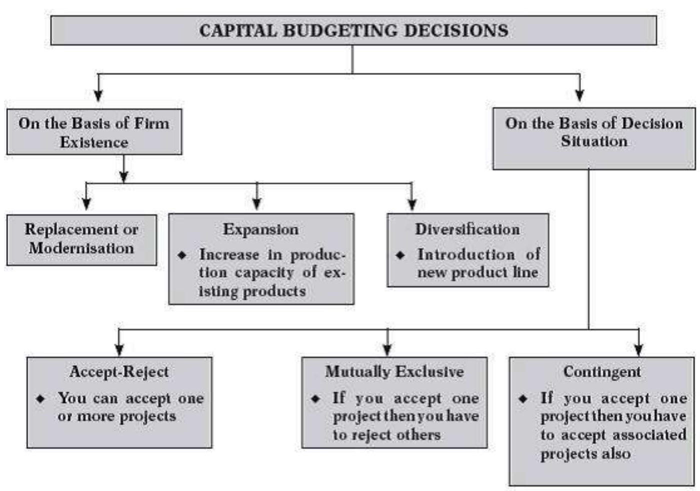
1. **Trade credit:** Trade credit is a common source of short-term finance available to all companies. It refers to the amount payable to the suppliers of raw materials, goods etc. after an agreed period, which is generally less than a year. It is customary for all business firms to allow credit facilities to their customers in trade business. Thus, it is an automatic source of finance. With the increase in production and corresponding purchases, the amount due to the creditors also increases. Thereby part of the funds required for increased production is financed by the creditors.
2. **Bank loans and advances:** Money advanced or granted as loan by commercial banks is known as bank credit. Companies generally secure bank credit to meet their current operating expenses. The most common forms are cash credit and overdraft facilities. Under the cash credit arrangement the maximum limit of credit is fixed in advance on the security of goods and materials in stock or against the personal security of directors. The total amount drawn is not to exceed the limit fixed. Interest is charged on the amount actually drawn and outstanding. During the period of credit, the company can draw, repay and again draw amounts within the maximum limit. In the case of overdraft, the company is allowed to overdraw its current account up to the sanctioned limit. This facility is also allowed either against personal security or the security of assets. Interest is charged on the amount actually overdrawn, not on the sanctioned limit.

5. What is meant by discounting and time value of money? How is it useful in capital budgeting?

Discounting can be defined as the act of estimating the present value of a future payment or a series of cash flows that are to be received in the future. It is a key element in valuing future cash flows.
Time Value of Money (TVM) is a fundamental financial concept, stating that the current value of money is higher than its future value, given its potential to earn in the years to come. Thus, it suggests that a sum of money in hand is greater in value than the same sum of money received in the next couple of years.
The time value of money is important in capital budgeting decisions because it allows small-business owners to adjust cash flows for the passage of time. This process, known as discounting to present value, allows for the preference of money received today over money received tomorrow.

6. Demonstrate capital budgeting decisions under various circumstances.

Capital budgeting decision refers to the decision in respect of purchase or sale of fixed assets and long term investment.



7. How is capital budgeting important for the finance of the organization? Produce the basic steps involved in capital budgeting proposal decisions.

- Capital budgeting is important because it creates accountability and measurability. Any business that seeks to invest its resources in a project without understanding the risks and returns involved would be held as irresponsible by its owners or shareholders.

- Furthermore, if a business has no way of measuring the effectiveness of its investment decisions, chances are the business would have little chance of surviving in the competitive marketplace.
- Businesses (aside from non-profits) exist to earn profits. The capital budgeting process is a measurable way for businesses to determine the long-term economic and financial profitability of any investment project.

The process of Capital Budgeting involves the following points:

- **Identifying and generating projects**
  Investment proposals are the first step in capital budgeting. Taking up investments in a business can be motivated by a number of reasons. There could be the addition or expansion of a product line. An increase in production or a decrease in production costs could also be suggested.
- **Evaluating the project**
  It mainly consists of selecting all criteria necessary for judging the need for a proposal. In order to maximize market value, it has to match the company's mission. It is crucial to consider the time value of money here.
- **Selecting a Project**
  After the project has been finalized, the other components need to be attended to. These include the acquisition of funds which can be explored by the finance department of the company. The companies need to explore all the options before concluding and approving the project. Besides, the factors like viability, profitability, and market conditions also play a vital role in the selection of the project.
- **Implementation**
  Once the project is implemented, now come the other critical elements such as completing it in the stipulated time frame or reduction of costs. Hereafter, the management takes charge of monitoring the impact of implementing the project.
- **Performance Review**

This involves the process of analyzing and assessing the actual results over the estimated outcomes. This step helps the management identify the flaws and eliminate them for future proposals.

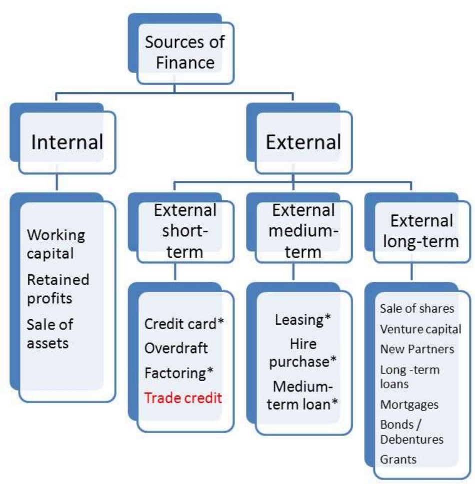
8. Classify NPV & IRR and describe the two methods of evaluating capital budgeting proposals.

Same as the 3rd Question.

9. In what way does medium term finance distinguish from sources of short-term finance?

Medium-term financial requirements are required for a period exceeding one year but not exceeding five years. All funds needed for meeting the defined revenue expenditures like expenses on heavy publicity and advertisement campaigns shall be considered as medium-term financial needs.

Short-term financial requirements arise for a short period of time often not exceeding one year (i.e., accounting period). All funds needed for financing current assets/for meeting working capital requirements shall be considered as short-term financial needs.



10. Explain the time value of money and how is it useful in capital budgeting?

Time Value of Money (TVM) is a fundamental financial concept, stating that the current value of money is higher than its future value, given its potential to earn in the years to come. Thus, it suggests that a sum of money in hand is greater in value than the same sum of money received in the next couple of years.
The time value of money is important in capital budgeting decisions because it allows small-business owners to adjust cash flows for the passage of time. This process, known as discounting to present value, allows for the preference of money received today over money received tomorrow.

PART B

1. Define Capital and different types of capital. Explain its significance.

Capital is anything that increases one's ability to generate value. It can be used to increase value across a wide range of categories, such as financial, social, physical, intellectual, etc. In business and economics, the two most common types of capital are financial and human.

Types of Capital:

The different types of capital include:

1. Financial

- Equity
- Debt
- Investments
- Working capital

2. Human

- Social
- Intellectual
- Physical
- Talents/skills

3. Natural

        - Commodities
        - Animals
        - Vegetation
        - Ecologies
- **Financial**

  The most common forms of financial capital are debt and equity. Debt is a loan or financial obligation that must be repaid in the future. It has an interest expense attached to it, which is the cost of borrowing money. The cash received from borrowing money is then used to purchase an asset and fund the operations of a business, which in turn generates revenues for a company.

- **Human**

  Human capital is used by businesses to create products and perform services that can be used to generate revenue for the company. Companies don't "own" people the way they do other assets. The most common types of human capital are intellectual and skills/talents.

2. Discuss the factors which are influenced on working capital requirements.

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

1. Nature or character of business: The working capital requirements of a firm basically depend upon the nature of its business. Public utility undertakings like electricity, water supply and railways need very limited working capital as their sales are on cash and are engaged in provision of services only.

2. Size of business or scale of operations: The working capital requirements of a concern are directly influenced by the size of its business, which may be measured in terms of scale of operations. Greater the size of a business unit,

generally, larger will be the requirements of working capital. However, in some cases, even a smaller concern may need more working capital due to high overhead charges, inefficient use of available resources and other economic disadvantages of small size.

3. Manufacturing process/Length of production cycle: In manufacturing business, the requirements of working capital will be in direct proportion to the length of manufacturing process. Longer the process period of manufacture, larger is the amount of working capital required, as the raw materials and other supplies have to be carried for a longer period

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

5. Seasonal variations: If the raw material availability is seasonal, they have to be bought in bulk during the season to ensure an uninterrupted material for the production. A huge amount is, thus, blocked in the form of material inventories during such seasons, which give rise to more working capital requirements. Generally, during the busy season, a firm requires larger working capital than in the slack season.

For more info visit lecture notes page no 119

3. Explain about sources of capital /finance under long –term finance.

I.The source of long – term finance are:
1. Issue of shares
2. Issue debentures
3. Loan from financial institutions
4. Retained profits and
5. Public deposits

Issue of Shares: The amount of capital decided to be raised from members of the public is divided into units of equal value. These units are known as share and the aggregate values of shares are known as share capital of the company. Those who subscribe to the share capital become members of the company and are called shareholders. They are the owners of the company. Hence shares are also described as ownership securities.

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

Preference shares may be issued as:

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

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

Participatory shareholders are entitled to a further share in the surplus profits after a reasonable dividend has been paid to equity shareholders. Non-participating preference shares do not enjoy such rights.

Redeemable preference shares are those, which are repaid after a specified period, whereas the irredeemable preference shares are not repaid.

4. Illustrate the available sources of finance in medium term and short term

Sources of Short-term Finance are:

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

MEDIUM TERM SOURCES OF FINANCE / FUNDS

Preference Capital or Preference Shares

Debenture / Bonds

Lease Finance
Hire Purchase Finance
Medium Term Loans from Financial Institutes, Government, and Commercial Banks

5. Write about Pay-back Period. Describe the advantages and disadvantages of Pay-back Period.

It is the most popular and widely recognized traditional method of evaluating investment proposals. It can be defined as 'the number of years required to recover the original cash outlay invested in a project'. According to Weston & Brigham, "The payback period is the number of years it takes the firm to recover its original investment by net returns before depreciation, but after taxes". According to James. C. Vanhorne, "The payback period is the number of years required to recover initial cash investment.// The pay back period is also called payout or payoff period. This period is calculated by dividing the cost of the project by the annual earnings after tax but before depreciation under this method the projects are ranked on the basis of the length of the payback period. A project with the shortest payback period will be given the highest rank and taken as the best investment. The shorter the payback period, the less risky the investment is the formula for payback period is

$$PayBackPeriod = \frac{Cashoutlay(or)originalcostofproject}{Annualcashinflow}$$

Merits:
1. It is one of the earliest methods of evaluating investment projects.
2. It is simple to understand and to compute.
3. It does not involve any cost for computation of the payback period
4. It is one of the widely used methods in small scale industry sector
5. It can be computed on the basis of accounting information available from the books.

DeMerits:
1.This method fails to take into account the cash flows received by the company after the payback period.

2.It doesn't take into account the interest factor involved in an investment outlay.

3.It is not consistent with the objective of maximizing the market value of the company's shares.

4.It fails to consider the pattern of cash inflows i. e., the magnitude and timing of cash in flows

6. State the ARR Method and advantages and disadvantages of ARR Method.

Accounting (or) Average rate of return method (ARR)

It is an accounting method, which uses the accounting information repeated by the financial statements to measure the probability of an investment proposal. It can be determined by dividing the average income after taxes by the average investment i.e., the average book value after depreciation. According to 'Soloman', accounting rate of return on an investment can be calculated as the ratio of accounting net income to the initial investment, i.e.

$$AverageRateofReturn = \frac{Averagenetincomeaftertaxes}{AverageInvestment}$$

$$Averagenetincomeaftertaxes = \frac{TotalIncomeafterTaxes}{No.OfYears}$$

$$AverageInvestment = \frac{TotalInvestment}{2}$$

On the basis of this method, the company can select all those projects who's ARR is higher than the minimum rate established by the company. It can reject the projects with an ARR lower than the expected rate of return. This method can also help the management to rank the proposal on the basis of ARR. A highest rank will be given to a project with highest ARR, whereas a lowest rank will be given to a project with lowest ARR.

Merits:

1. It is very simple to understand and calculate.
2. It can be readily computed with the help of the available accounting data.
3. It uses the entire stream of earnings to calculate the ARR.

DeMerits:

1. It is not based on cash flows generated by a project.
2. This method does not consider the objective of wealth maximization
3. IT ignores the length of the project's useful life.
4. It does not take into account the fact that the profits can be reinvested

7. Illustrate the NPV method with advantages and disadvantages.

Net present value method (NPV)

The NPV takes into consideration the time value of money. The cash flows of different years and valued differently and made comparable in terms of present values for this the net cash inflows of various periods are discounted using the required rate of return which is predetermined. According to Ezra Solomon, “It is a present value of future returns, discounted at the required rate of return minus the present value of the cost of the investment.” NPV is the difference between the present value of cash inflows of a project and the initial cost of the project. According to the NPV technique, only one project will be selected whose NPV is positive or above zero. If a project(s) NPV is less than ‘Zero’. It gives negative NPV hence. It must be rejected. If there are more than one project with positive NPV’s the project is selected whose NPV is the highest. The formula for NPV is

$$NetPresentValue = \frac{C1}{(1+K)} + \frac{C2}{(1+K)} + \frac{C3}{(1+K)} + \frac{Cn}{(1+K)}$$

Net Present Value = PVCIF-PVCOF PVCIF = Present Value of Cash Inflows PVCOF = Present Value of Cash Outflows Co- investment C1, C2, C3. . . Cn= cash inflows in different years. K= Cost of the Capital (or) Discounting rate D= Years.

Merits:

1. It recognizes the time value of money.
2. It is based on the entire cash flows generated during the useful life of the asset.
3. It is consistent with the objective of maximization of wealth of the owners.
4. The ranking of projects is independent of the discount rate used for determining the present value.

DeMerits:

1. It is different to understand and use.

2. The NPV is calculated by using the cost of capital as a discount rate. But the concept of cost of capital. If self is difficult to understand and determine.
3. It does not give solutions when the comparable projects are involved in different amounts of investment.
4. It does not give the correct answer to a question whether alternative projects or limited funds are available with unequal lines.

8. Write the advantages and disadvantages of the IRR Method.

Internal Rate of Return Method (IRR)
Merits:
1. It consider the time value of money
2. It takes into account the cash flows over the entire useful life of the asset.
3. It has a psychological appear to the user because when the highest rate of return projects are selected, it satisfies the investors in terms of the rate of return on capital
4. It always suggests accepting projects with a maximum rate of return.
5. It is inconsistent with the firm's objective of maximum owner's welfare.

DeMerits:
1. It is very difficult to understand and use.
2. It involves very complicated computational work.
3. It may not give a unique answer in all situations.

9. Explain the advantages and disadvantages of the Profitability Index Method.

Merits:
1. It requires less computational work than IRR method
2. It helps to accept / reject investment proposals on the basis of value of the index.
3. It is useful to rank the proposals on the basis of the highest/lowest value of the index.
4. It is useful to tank the proposals on the basis of the highest/lowest value of the index.

5. It takes into consideration the entire stream of cash flows generated during the useful life of the asset.

DeMerits:

1. It is somewhat difficult to understand

2. Some people may feel no limitation for index number due to several limitation involved in their competitions

3. It is very difficult to understand the analytical part of the decision on the basis of probability index.

10. Define Capital Budgeting. Illustrate the significance and limitations of Capital Budgeting.

One of the important problems facing the top management in an enterprise is to determine whether the firm should invest funds to acquire fixed assets. In some instances, the goals of the firm will be accomplished by acquisition of the assets while in other situations such action may prove detrimental to the growth of the firm.A firm should acquire fixed assets if the marginal revenue derived there exceeds the marginal cost.

Significance

1] Large Investments

2] Long-term Commitment of Funds

3] Irreversible Nature

4] Long-Term Effect on Profitability

Visit Capital Budgeting: Nature, Importance, and Limitations - ilearnlot for further info on significance.

Capital budgeting techniques suffer from the following limitations:

- All the technology of capital budgeting presumes that various investment offers with proposals under opinion are mutually exclusive; which may not practically be true in some exceptional circumstances.
- The techniques of capital budgeting require the estimation of future cash inflows and outflows. The future is always uncertain and the data collected for the future may not be exact. Obviously the results based on wrong data may not be good.
- There are certain factors like the morale of the employees, goodwill of the firm, etc., which cannot be correctly quantified but which otherwise substantially influence the capital decision.
- Urgency is another limitation in the assessment of capital investment decisions.
- Uncertainty and risk pose the biggest limitation to the technology of capital budgeting.

11. The cost of a project is Rs.50,000 and annual cash inflows for the next five years are given as follows: 1st year Rs.25,000 2nd year Rs.25,000 3rd year Rs.25,000 4th year Rs.25,000 5th year Rs.25,000 Total 125,000 What is the pay-back period for the project?

11) Investment = 50,000

Cash inflow for 5 years

25,000 1^{st} year

25,000 2^{nd} "

25,000 3^{rd} "

25,000 4^{th} "

25,000 5^{th} "

Cash inflow is in uniform

$$\text{pay back period} = \frac{\text{Investment}}{\text{Cash inflow per annum}}$$

$$= \frac{50000}{25000} = 2$$

payback period = 2 years

12. There are two projects X and Y. Each project requires an investment of Rs.20, 000. You are required to Rank these two projects according to pay-back period method from the following information: Net Profits Before Depreciation and After Tax (NPBDAT) for Two projects were given below:

Particulars	Process X (Rs.)	Process Y (Rs.)	Process Z (Rs.)
Materials	225	75	3
Labour	12	3	9
Direct Expenses	3	2	4
Carriage	2	3	1
Works Overheads	189	258	1895

13. A firm is considering two projects each with an initial investment of Rs.20,000 and a life of 4 years. The following is the list of estimated cash inflows after taxes and depreciation.

Years	Proposal 1 (Rs.)	Proposal 2 (Rs.)	Proposal 3 (Rs.)
1	12,500	11,750	13,500
2	12,500	12,250	12,5000
3	12,500	12,500	12,250
4	12,500	13,500	11,750
Total	50,000	50,000	50,000

Predict ARR on the basis of
(i) Average Capital
(ii) Original Capital Employeed methods

He may give Scrap value in sem. If given

Average Investment = (Initial Investment + Scrap Value) / 2

(13) Initial Investment = 20,000

Life = 4 years

Year	Propsal 1
1	12,500
2	12,500
3	12,500
4	12,500
Total	50,000

ii) original capital

$$ARR = \frac{\text{Net profit after tax \& depression}}{\text{original capital}} \times 100$$

(CFAT) Cash Flow After Tax = 50,000

$$\text{Depression} = \frac{\text{original capital}}{\text{No. of years}}$$

$$= \frac{20,000}{4} = 5000$$

Net profit after depriation and TAX = CFAT − Depreciation

$= 50,000 - 5000$

$= \cancel{37500} = 45000$

$$ARR = \cancel{\frac{37500}{4}} \; \frac{45000}{20000} \times 100$$

$= 225\%$

(13) Initial Investment = 20,000

life = 4 years

year	proposal 1
1	12500
2	12500
3	12500
4	12500
Total	50,000

i) Average capital

$$ARR = \frac{\text{Annual average net earnings}}{\text{Average investment}} \times 100$$

$$\text{Average investment} = \frac{\text{original investment}}{2}$$

$$= \frac{20,000}{2} = 10,000 \qquad = \cancel{\frac{50,000}{5}} = \cancel{10,000}\; 25,000$$

(∵ scarp value is not given)

Annual average net earnings =

$$\frac{\text{Total income after tax \& dep}}{\text{No. of years}}$$

$$= \frac{50,000}{4} = 12500$$

$$ARR = \frac{12500}{10000} \times 100$$

$= 125\%$

This is for proposal 1 Apply same procedure for propsal 2 & Proposal 3

Alternate Solution:

13. invst = 20K

4yrs

Given CF after taxes & dep

= 1/2 of original inv.

(a) ARR on average capital

Here AAPAT = sum of all years ÷ 50K Time = 50K/4 = 12500

$$ARR = \frac{\text{Avg. annual profit after tax}}{\text{Avg investment}}$$

I	II	III
$= \frac{12500}{10,000} \times 100$	$= \frac{125000}{10,000} \times 100$	$= \frac{125000}{10000} \times 100$
= 125%	= 125%	= 125%

b) original capital Employed methods

$$ARR = \frac{\text{Avg. ann. profit after tax}}{\text{original invest}}$$

I	II	III
$= \frac{12500}{20K}$	$\frac{12500}{20K}$	$\frac{12500}{20K}$
= 62.5%	= 62.5%	= 62.5%

14. Company has an investment opportunity costing Rs.50,000 with the following expected net cash flows after taxes and before depreciation.

Years	Net Cash Inflows	P.V. of Rs. 1 @ 10% D.F.
1	20,000	0.909
2	15,000	0.826
3	25,000	0.751
4	10,000	0.683

Using 10% as the cost of capital determine
(i) Pay-back Period
(ii) Net Present Value @10% D.f. and
(iii) Profitability Index @10% D.f.

(a) payback period when cash inflow is uneven

payback = $E + \frac{B}{C}$

E = year preceding to the year of recovery

B = Amount left to be recovered

C = cash inflow during the final year of recovery

cash inflow till 3rd year = 20000 + 15000 + 25000 = 60000

from above the investment 50000 is recovered by 3rd year

~~cash inflow till 3rd year = 20000 + 15000 + 25000 = 60,000~~

payback period = $E + \frac{B}{C} = 2 + \frac{50000 - 35000}{25000}$

$= 2 + \frac{15000}{25000}$

$= 2 + 0.6$

$= 2.6$ years

14 a) Pay back period

initial layout = 50,000

cash inflow for 4 yrs

= 20K + 15K + 25K + 10K

= 70K

~~Balance outlay~~

50K is recovered btw 2 & 3 yrs

sum of 35K recovered by 2nd yr

15K balance by 3rd

$$\text{Pay back} = 2 + \frac{15{,}000}{25{,}000} \text{ (inflow in 3rd yr)}$$

$$= 2 + 0.6 = \underline{2.6 \text{ yrs}}$$

b) NPV @ 10% DF

	PV
1.	18180 (20K × 0.909)
2.	12390 (15K × 0.826)
3.	18775
4.	6830
	₹ 56175

Now

$NPV = 56175 - 50000$

$= ₹ 6175$

c) Profitability index @ 10% DF

$$PI = \frac{\text{PV of cash inflow}}{\text{PV of cash outflow}} \quad \text{— ?}$$

(14) iii) profitability index @ 10% DF

Year	Net cash inflow	Rs. P.V @ 10 DF	P.V @ 10 DF
1	20,000	0.909	18180
2	15,000	0.826	12390
3	25,000	0.751	18775
4	10,000	0.638	6830
			56175

outflow / Investment = 50000

$$P.I = \frac{\text{P.V of cash Inflow}}{\text{P.V of cash outflow}}$$

$$= \frac{56176}{50000}$$

$$P.I = 1.124 \%$$

15. A project involves initial outlay of Rs. 1,29,600. Its working life is expected to be 3 years. The cash inflows are likely to be as follows: year1 Rs. 64,000; Year 2 Rs. 56,000 and Year 3 Rs. 24,000. Compute the internal rate of return.

(

(ii) Net present value @10% D.f. $\frac{1}{(1+r)^n}$

Total present value − cash outflow

$\Rightarrow 18180 + 12390 + 18775 + 6830 = 56175$

$= 56{,}175 - 50{,}000 = 6175$

(iii) Probability index @ 10% D.f

$PI = \dfrac{\text{Present value of cash inflow}}{\text{initial cash outlay}}$

$= \dfrac{56{,}175}{50{,}000} = 1.1235$

(15) cost = 1,29,600

time = 3yrs

yrs	1	2	3
Inflows	64000	56000	24000

Internal Rate of return

$$IRR = L + \frac{P1 - Q}{P1 - P2} \times D$$

Fake payback period =

$$\frac{\text{initial invesmt}}{\text{avg cash inflow}} = \frac{1,29,600}{48,000}$$

Fake payback period = 2.7

L = 5

yr	Cash in flow	pv factor lower 5%	present value	upp pvat 6%	Current Value
1	64000	0.952	60928	0.943	60,352
2	56000	0.907	50792	0.889	49784
3	24000	0.863	20712	0.839	20136
			P1 = 132432		P2 = 130272

$$IRR = 5 + \frac{132432 - 129600}{132432 - 130272} \times 1$$

$= 5 + 1.31$

$= 5 + 1.31$

$= 6.31\%$

16. A Company has an estimated Life of 4 years and an investment opportunity costing Rs.2,50,000 with the following expected Net Cash Flow After Taxes and Before Depreciation.

Years	Net Cash Inflows	P.V. of Rs. 1 @ 24% D.F.
1	1,20,000	0.806
2	90,000	0.650
3	1,60,000	0.524
4	30,000	0.423

Using 24% as the cost of capital predict the following:
(i)Net Present Value @24% D.f.
(ii)Profitability Index @24%D.f
(iii)Pay-back Period

(16)

Time - 4 yrs

cost - 2,50,000

(i) Net present value @24% Dt

NPV = total present value - Cash outflow

$= (96720 + 58500 + 83840 + 12690) - 2,50,000$

$= 25,1750 - 25,0000$

$= 1750$

(ii) Profitability Index

$PI = \frac{\text{total present value}}{\text{Cash outflow}}$

$= \frac{251750}{250000} = 1.007$

(iii) Pay back period

$12000 + 90000 = 2,10000$

$2,10,000 + \frac{40,000}{1,60,000}$

4

$2 + \frac{1}{4}$ yea

2.25 yrs

17. A Company has an investment opportunity costing Rs. 40,000 with the following expected net cash flow after taxes and before depreciation.

Years	Net Cash Inflows	P.V. of Rs. 1 @ 10% D.F.	P.V. of Rs. 1 @ 15% D.F.
1	7,000	0.909	0.870
2	7,000	0.826	0.756
3	7,000	0.751	0.658
4	7,000	0.683	0.572
5	7,000	0.621	0.497
8	8,000	0.564	0.432
7	10,000	0.513	0.376
8	15,000	0.467	0.327
9	10,000	0.424	0.284
10	4,000	0.386	0.247

Using 10% as the cost of capital compute:
(i)Net Present Value @10% D.F. and 15% D.F.
(ii)Profitability Index @10%D.f
(iii)Pay-back Period
(iv)IRR @10%D.F abd 15% D.F

a)

Years	Cash Inflow	Total Cash Inflow
1	7,000	7,000
2	7,000	14,000
3	7,000	21,000
4	7,000	28,000
5	7,000	35,000
6	8,000	43,000
7	10,000	53,000
8	15,000	68,000
9	10,000	78,000
10	4,000	82,000

The initial investment of Rs.40,000 will be recovered between the years 5 and 6. The pay back period would be a fraction more than 5 years. The sum of Rs.35,000 is recovered by the end of the 5th year. The balance Rs.5,000 is needed to be recovered in the 6th year. In the 6th year cash inflow is Rs.8,000. The pay back fraction therefore (5000 / 8000) or 0.625.

∴ Pay back period is 5.625 years.

b) Net Present Value

Year	Inflow (Rs.)	Present value factor (10%)	Present value (Rs.)
1	7,000	0.909	6,363
2	7,000	0.826	5,782
3	7,000	0.751	5,257
4	7,000	0.683	4,781
5	7,000	0.621	4,347
6	8,000	0.564	4,512
7	10,000	0.513	5,130
8	15,000	0.467	7,005
9	10,000	0.424	4,240
10	4,000	0.386	1,544
		Total present value of inflows	48,961

$\therefore$ Net present value at 10% discounting factor

Rs.(48,961- 40,000) = Rs.8961.

c) Profitability Index

(c) Profitability Index:

$$Profitability\ Index = \frac{PV\ of\ cash\ inflo}{PV\ of\ cash\ outflc}$$

d) Internal Rate of Return

$$\frac{40,000}{(82,000 \div 10)} = 4.878$$

		Discount factor 14%		Discount factor 15%	
Year	Annual Cash Inflows	PV factor	Present Value	PV factor	Present Value
1	7,000	0.877	6,139	0.870	6,090
2	7,000	0.769	5,383	0.756	5,292
3	7,000	0.675	4,725	0.658	4,606
4	7,000	0.592	4,144	0.572	4,004
5	7,000	0.519	3,633	0.497	3,479
6	8,000	0.456	3,648	0.432	3,456
7	10,000	0.400	4,000	0.376	3,760
8	15,000	0.351	5,265	0.327	4,905
9	10,000	0.308	3,080	0.284	2,840
10	4,000	0.270	1,080	0.247	988
		Total PV	**41,097**		**39,420**
		Less: Initial Investment	40,000		40,000
			1,097		**- 580**

= 5% / 9,561 * 8,961 = 4.67

= 10 + 4.67 = 14.67%

or, IRR = 14.65% i.e., the rate at which NPV is zero.

(17) Cost = 40,000

(i) Net present value @ 10% DF & 15% DF

NPV @ 10% = 48961 − 40,000 =

8961 − Accept

NPV @ 15% = 39420 − 40,000

− 580 − reject

(ii) Profitability index @ 10%

$$\frac{\text{total present value}}{\text{cash outflow}} = \frac{48961}{40,000} =$$

1.224 − Acpt

(iii) Pay-back period

5yrs − 7000 × 5 + $\frac{5}{8}$

0.625

= 5.625 yrs

18. What is NPV & IRR Compare and contrast the two methods of evaluating capital budgeting proposals.

Net present value (NPV) is the difference between the present value of cash inflows and the present value of cash outflows over a period of time. The IRR for an investment proposal is that discount rate which equates the present value of cash inflows with the present value of cash outflows of an investment. The IRR is also known as cutoff or handle rate. It is usually the concern's cost of capital.

19 What is meant by discounting and time value of money? How is it useful in capital budgeting?

20 What is meant by discounting and time value of money? How is it useful in capital budgeting?

PART C

1 List out the essentials of a budget.

Essentials of an Effective Budgeting:

- Sound Forecasting
- An Adequate, Planned and Reliable Accounting System
- Efficient Organization
- Formation of Budget Committee
- Cleanly defined Business Policies
- Availability of Standard Information
- Support of Top Management
- Good Reporting System
- Motivation

2 Compare relation budget with budgeting

A **budget** is a financial and quantitative statement of an operational plan related to a specific time period, which is to be followed during the budgeted period in order to achieve specific financial objectives of an organization.

Budgeting

Budgeting refers to the process of preparation, implementation and operation of budgets. It involves formulation of operational plans for a given future period and expressing it in monetary terms.

3 Show the characteristics of good budgeting

Characteristics Of Good Budget

- Long range goal and possible emergencies.
- Repayment of due bills, debts and notes.
- Commitments both regular (as mortgage payment) and irregular (such as taxes)
- Miscellaneous, overlooked items, unexpected expenses and extra spending.
- Current living expenses such as food, clothing, allowance and transportation.
- Satisfaction of near future goals.

4 List out the essentials of budgetary control.

- **1. Sound forecasting:**
- The estimates for the future needs of business should be precise and accurate.
- A scientific forecasting system gives adequate and reliable data for budgeting.
- **2. Goal orientation:**
- Budgets must directly flow from objectives of the enterprise, and goals of budgetary control must be clearly defined.
- **3. Proper recording system:**
- Sound accounting procedures should be allowed for proper recording of actual operations. Unless the actual performance is accurately recorded and quickly reported; the whole structure of budgeting will fall. Budgeting is greatly helped if there is also the system of standard costing in use.
- **4. Participation:**

- All individuals responsible for achieving results should be consulted in the formulation of budgets. No system of budgetary control can succeed without the mutual understanding of superiors and subordinates. Participation assures full co-operation and commitment for making budgets successful. Participation also makes budgets realistic and workable.
- **5. Top Management support:**
- Since budgeting highlights inefficiencies there is bound to be resistance. This makes it more necessary that top management should believe in the importance of budgetary control. Thus the overall budgets must be set and approved at the chief executive level.
- **6. Flexibility:**
- Budgets should be flexible. If actual business conditions differ from what was expected, it should be possible to recast the budget quickly.
- **7. Enforce timeliness:**
- Budgets must be prepared so as to be ready before the period to which they relate. Moreover sufficient time should be allowed for the budget programme to develop and reach near perfection.
- **8. Efficient organization:**
- A good organisation structure is necessary for success in budgeting. There should be fixed responsibility centres, budget committee and budget controller.
- **9. Proper Co-ordination:**
- The budget plans must be properly co-ordinated in order to eliminate bottlenecks. Individual budgets should be co-ordinated with one another.
- **10. Sound administration:**
- Budgets cannot replace good management. Budgets should be administered efficiently by responsible executives.
- **11. Constant Review:**
- Constant review of the budgets is necessary so as to prevent them from degenerating into license for spending the full budgeted amount even though it may not be necessary.
- **12. Reward and punishment:**

- The concerned employees should be suitably rewarded for performance as per the budget. But slack employees should not be allowed to go unpunished.
- **13. Results take time:**
- The budgetary control is an efficient tool to control performance. But it requires time to show results. Those who administer budgetary control should have high degree of knowledge and experience in the field
- **NOTE ONLY SUBHEADINGS ARE SUFFICIENT**

5 What are the objectives of budgetary control?

Objectives of Budgetary Control:

1. Cost Control – The main aim of budgetary control is to control the production and other costs with maximum output.
2. Coordination – Establishing coordination amongst various departments is the primary objective of budgetary control.
3. Control on Various Activities – Various activities are controlled through budgetary control for the attainment of budget estimates.
4. Help to Administrators – Budgetary control helps administrations in smooth running of the business. It can be used in production, administration, sales and in estimating financial requirements.

6 List out the any five steps in budgetary control.

1 Developing Budgets

The first stage in budgetary control is developing various budgets. It will be necessary to identify the budget centers in the organization and budgets will have to develop for each one of them.

Thus budgets are developed for functions like purchase, sale, production, manpower planning as well as for cash, capital expenditure, machine hours, labor hours and so on.

Utmost care should be taken while developing the budgets. The factors affecting the planning should be studied carefully and budgets should be developed after a thorough study of the same.

2. **Recording Actual Performance**

There should be a proper system of recording the actual performance achieved. This will facilitate the comparison between the budget and the actual. An efficient accounting and cost accounting system will help to record the actual performance effectively.

3. **Comparison of Budgeted and Actual Performance**

One of the most important aspects of budgetary control is the comparison between the budgeted and the actual performance.

The objective of such a comparison is to find out the deviation between the two and provide the base for taking corrective action.

4. **Corrective Action**

Taking appropriate corrective action based on the comparison between the budgeted and actual results is the essence of budgeting.

A budget is always prepared for the future and hence there may be a variation between the budgeted results and actual results.

There is a need to investigate the same and take appropriate action so that the deviations will not repeat in the future. Responsibilities can be fixed on proper persons so that they can be held responsible for any such deviations.

NOTE SUBHEADINGS ARE ENOUGH

7 Write any five advantages of budgetary control.

Benefits of Budgetary Control

1. Budgeting facilitates the planning of various activities and ensures that the working of the organization is systematic and smooth.
2. Budgeting is a coordinated exercise and hence combines the ideas of different levels of management in the preparation of the same.
3. Any budget cannot be prepared in isolation and therefore coordination among various departments is facilitated automatically.
4. Budgeting helps planning and controlling income and expenditure to achieve higher profitability and also acts as a guide for various management decisions.
5. Budgeting is an effective means for planning and thus ensures sufficient availability of working capital and other resources.
6. It is extremely necessary to evaluate the actual performance with predetermined parameters. Budgeting ensures that there are well-defined parameters and thus the performance is evaluated against these parameters.
7. As the resources are directed to the most productive use, budgeting helps in reducing the wastages and losses.

8 Illustrate the five demerits of budgetary control.

1. Danger of inaccurate estimates:

Budgets are based on estimates and they involve forecasting of future events. The effectiveness of budgetary programme depends to a great extent on the accuracy with which estimates are made.

2. Danger of rigidity:

In practice, budgets often tend to become rigid. It becomes difficult to make changes in budgets to suit the changing circumstances.

Budgetary limits are regarded as final and little scope is left for initiative and judgment on the part of the subordinate staff. Inflexibility makes budgets unrealistic and invalid under the changed conditions.

3. Human factor:

Budgets need the willing co-operation and active participation of people working in the enterprise. It is not always possible to get the voluntary cooperation and support from all in the construction and implementation of budgets.

4. Expensive:

It requires a lot of expenditure in terms of money, time and effort. A considerable time is needed in learning effective budgeting. Budgets cannot give results overnight and great patience is required on the part of the management. Management may lose interest and confidence in budgeting, where quick results are expected.

5. Hide Inefficiencies:

Budgets are sometimes used to hide inefficiencies. Budgets tend to grow from the precedent. Many items which cease to be relevant are continued because of their use in previous budgets.

6. Departmental Outlook:

Budgeting fails when departmental goals are allowed to supersede enterprise objectives. Functional budgets may not reflect the overall goals of the organisation in their proper perspective.

Similarly, situation may demand that the departmental manager should not cross budget limit in the interest of overall business objectives. However, in this enthusiasm and zeal to keep within budget limits, a departmental manager may overlook the enterprise goals.

7. Danger of over budgeting:

Budgets are often so detailed that they become cumbersome, meaningless and unduly expensive. Over budgeting usually reflects the superior manager's desire to maintain control. However, to derive full benefits of budgetary control, over budgeting should be avoided and subordinates should be adequately trained to read and administer budgets in the proper manner.

8. No substitute for efficient management:

No doubt, budgeting is of a great help in arriving at right decisions. But budget does not replace management and administration. It is a servant and not a master. It opens up vistas but someone has to read it, interpret it and implement it.

9. Lack of cost-benefit analysis:

Budget making is a tempting exercise. It can be effective only when there is a correlation between the cost of the system and the benefits to be derived from it.

NOTE SUBHEADINGS ARE ENOUGH

9 Explain the importance of flexible budget.

Flexible budgeting is very useful and significant in modern times.

- It is an important tool of cost control.
- It provides for necessary allowance to be made in the budget figures and suggests what the figure should have been with the level of activity actually attained.
- It is very useful in cost control where yearly forecasts for overheads cannot be made with precision.
- A flexible budget should be prepared for one year and then, for different control periods within a year, separate fixed budgets can be prepared. This procedure makes possible to control the activity effectively within the budgeted period.

- For the departments where the nature of activities is flexible (for example sales department), the importance of flexible budgeting is obvious.
- A flexible budget is virtually a dynamic tool for cost control. In makes possible to estimate costs for any level of activity.
- It facilitates the comparison of actual results with the budgeted figures.

10 Demonstrate difference between fixed budget and Performance budget.

Fixed Budget is static in nature while Flexible Budget is dynamic. Fixed Budget operates in only one activity level, but Flexible Budget can be operated on multiple levels of output. Fixed Budget is based on the assumption, whereas Flexible Budget is realistic. Fixed Budget is inelastic, as it cannot be re-casted as per the actual output.

- Definition. Performance-Based Budgets are budgets that are focused on outcomes, and targets that are set for the organizations.
- Example. Performance-Based budgeting involves setting targets in order to meet the objectives of the organization, at large.

11 State the meaning of cash budget.

A Cash budget represents the expected future cash flow of an organization over a defined period of time. It is an estimate of the cash receipts expected in the future over the budget period, the expenditure to be incurred in cash, and finally, the cash balance with the company at the end of the period.

12 List out the advantages of cash budget.

1. You can avoid debt.

If all you're allowed to do is spend the cash you have, then you avoid debt. Once you run out of cash, you can no longer spend anything. That does mean you must set aside cash for emergency situations, otherwise you may find yourself in an uncomfortable situation. If your hot water heater goes out and you don't have enough cash available to replace it, then you'll be taking cold showers until you do.

2. You are forced to budget better.

A cash-only budget forces households and businesses to budget better. There are no "outs" with this type of budget. You either make ends meet and live comfortably or you don't and suffer the consequences. It is a process which requires frequent attention to details, tracking specific spending habits, and proactive management to ensure that there is always enough money available to take care of every need.

3. You become more resourceful.

When you're using a cash budget, you must find efficiencies that you may not seek out if you are using other financial resources and tools. You must find ways to save cash, which means you must eliminate all waste from your budget. Businesses find that when they are watching every penny (or equivalent) that comes in and out with their cash flow, they can control spending better and find new ways of growth. You get to see where all your cash is going when you use this type of budget.

4. You stay in-touch with reality.

People don't look at their bills because it makes them feel like they don't need to pay it. With a cash budget approach, you're given a heavy dose of reality. You must look at your financial statements, your bills, your obligations, and every expenditure that you make. There is no other way to determine if you're overspending on purchases. Because your supply of cash is limited, overspending limits your resource access. You're forced out of the position of being able to purchase something which you may not be able to afford at the moment.

5. You can quickly identify potential deficits.

When you are operating off of a cash budget, then you can quickly determine if you'll have enough cash to meet obligations. If not, then you'll be able to trigger a corrective action to ensure the budget estimates can be met. Being cash-only does not limit the ability to borrow money from a business perspective. It's better to borrow to pay taxes or meet a monthly payroll, especially if the cash shortfall is a temporary issue.

13 State the factors which are considered for preparation of production budget
there are three basic factors which govern the quantity to be manufactured during a given period. They are raw material supply, labor supply and plant capacity. For this purpose, separate budgets are developed for example, materials budget, labor budget and plant capacity utilization budget.

14 Briefly explain the meaning and advantages of master budget
The master budget reveals how much your company is earning and spending as a whole, and shows whether the business is in good or negative financial standing. Advantage: Master Budget Equals Masterly Planning Another advantage of having a master budget is the ability to identify problems and plan ahead.

15 Show the meaning and characteristics of performance budget.

The concept of performance budgeting is used mainly in the Government and public sector undertakings. It projects the Government activities and expenditure thereon for the budget period. It shows budgeted expenses classified by functions, activities and unit cost, if possible

16 List out the uses of performance budget.

- 1) It presents clearly the purposes and objectives for which the funds are sought and the programmes are designed in…
- (2) It helps in better understanding and better review of the budget by the legislators. ADVERTISEMENTS:
- (3) It improves the formulation of the budget and facilitates decision-making at all levels of government.
- (4) It enhances accountability and provides an additional tool to management in financial operations.

17 Explain any five requisites for successful budgetary control system.

Essentials of effective budgetary control are: 1. sound forecasting 2. goal orientation 3. proper recording system 4. participation 5. top management support 6. flexibility 7. enforce timeliness 8. efficient organization 9. proper co-ordination 10. sound administration 11. constant review 12. reward and punishment and 13. results take time!

1. Sound forecasting:

The estimates for the future needs of business should be precise and accurate

A scientific forecasting system gives adequate and reliable data for budgeting.

2. Goal orientation:

Budgets must directly flow from objectives of the enterprise, and goals of budgetary control must be clearly defined.

3. Proper recording system:

Sound accounting procedures should be allowed for proper recording of actual operations. Unless the actual performance is accurately recorded and quickly reported; the whole structure of budgeting will fall. Budgeting is greatly helped if there is also the system of standard costing in use.

4. Participation:

All individuals responsible for achieving results should be consulted in the formulation of budgets. No system of budgetary control can succeed without the mutual understanding of superiors and subordinates. Participation assures full co-operation and commitment for making budgets successful. Participation also makes budgets realistic and workable.

5. Top Management support:

Since budgeting highlights inefficiencies there is bound to be resistance. This makes it more necessary that top management should believe in the importance of budgetary control. Thus the overall budgets must be set and approved at the chief executive level.

6. Flexibility:

Budgets should be flexible. If actual business conditions differ from what was expected, it should be possible to recast the budget quickly.

7. Enforce timeliness:

Budgets must be prepared so as to be ready before the period to which they relate. Moreover sufficient time should be allowed for the budget programme to develop and reach near perfection.

8. Efficient organization:

A good organisation structure is necessary for success in budgeting. There should be fixed responsibility centres, budget committee and budget controller.

9. Proper Co-ordination:

The budget plans must be properly co-ordinated in order to eliminate bottlenecks. Individual budgets should be co-ordinated with one another.

10. Sound administration:

Budgets cannot replace good management. Budgets should be administered efficiently by responsible executives.

11. Constant Review:

Constant review of the budgets is necessary so as to prevent them from degenerating into license for spending the full budgeted amount even though it may not be necessary.

12. Reward and punishment:

The concerned employees should be suitably rewarded for performance as per the budget. But slack employees should not be allowed to go unpunished.

13. Results take time:

The budgetary control is an efficient tool to control performance. But it requires time to show results. Those who administer budgetary control should have high degree of knowledge and experience in the field.

18 State the steps which are involved in zero based budgeting.

Zero Based Budgeting Steps

1) Identification of a task

2) Finding ways and means of accomplishing the task

3) Evaluating these solutions and also evaluating alternatives of sources of funds

4) Setting the budgeted numbers and priorities

19 State any five advantages of zero based budgeting.

Zero Based Budgeting Advantages

1. Accuracy: Against the regular methods of budgeting that involve just making some arbitrary changes to the previous year's budget, this method makes every department relook each and every item resulting in cash flow and compute their operation costs. This, to some extent, helps in cost reduction as it gives a clear picture of costs against the desired performance.
2. Efficiency: This helps in the efficient allocation of resources (department-wise) as it does not look at the historical numbers but looks at the actual numbers
3. Reduction in redundant activities: It leads to the identification of opportunities and more cost-effective ways of doing things by removing all the unproductive or redundant activities.
4. Budget inflation: Since every line item is to be justified, a zero-based budget overcomes the weakness of incremental budgeting of budget inflation.
5. Coordination and Communication: It also improves coordination and communication within the department and motivates employees by involving them in decision-making.

20 Write any four differences between fixed budget and flexible budget.

Fixed Budget	Flexible Budget
A fixed budget is a budget that remains static irrespective of the activity level.	A flexible budget is a budget that changes as per the necessity of activity level.
The fixed budget doesn't change as per the fluctuations of business.	Flexible budget changes as per the fluctuations of business;
A fixed budget is always static.	A flexible budget is very dynamic.
Pretty simple.	Quite complex.
It is easy to prepare a fixed budget.	It is quite tough to prepare a flexible budget since one needs to prepare for all situations.

The dissonance between the actual level and the budgeted level is quite high since there is no similarity in activity level	The dissonance between the actual level and the budgeted level is quite low.
Comparison is difficult since the activity levels are different at the actual level and budgeted level.	Comparison is quite easy since the activity levels are quite similar.
Pretty rigid, no fluctuation is taken into account.	Quite flexible, almost every fluctuation is taken into account.
A fixed budget is mostly estimated on assumptions and anticipations.	A flexible budget is prepared with realistic situations in mind.

IARE '24 DISCORD TEAM

II-II

BEFA MODULE 5 SOLUTIONS

HARINI • RUTHVIK • UJJWAL

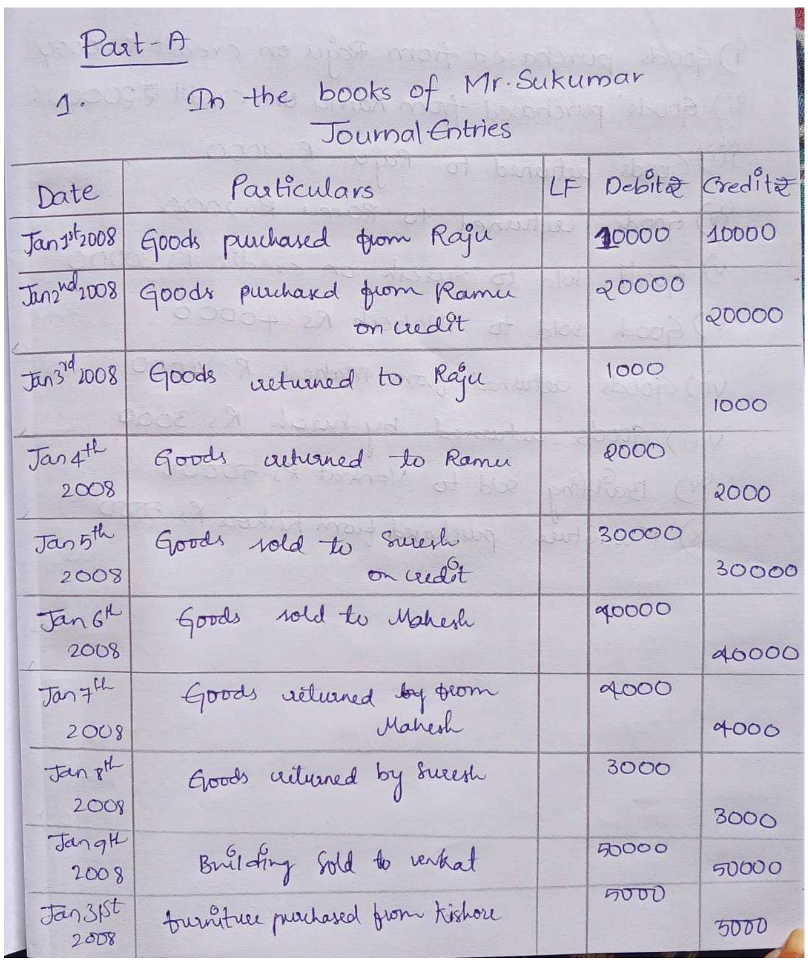
INTRODUCTION TO FINANCIAL ACCOUNTING AND FINANCIAL ANALYSIS

Completed

BEFA MODULE 5

PART A (3 Done, Remaining Same Pattern)

1. Write Journal Entries in the books of Mr. Sukumar from the following transactions 2008, Jan.1st Goods purchased from Raju on credit Rs. 10,000 Jan 2nd Goods purchased from Ramu Rs. 20,000 Jan 3rd Goods returned to Raju Rs. 1,000 Jan 4th Goods returned to Ramu Rs. 2,000 Jan 5th Goods sold to Suresh on credit Rs. 30,000 Jan 6th Goods sold to Mahesh Rs. 40,000 Jan 7th Goods returned from Mahesh Rs. 4,000 Jan 8th Goods returned by Suresh Rs. 3,000 Jan 9th Building sold to Venkat Rs. 50,000 Jan 31st Furniture purchased from Kishore Rs.5,000.


Part-A

1. In the books of Mr. Sukumar
Journal Entries

Date	Particulars	LF	Debit₹	Credit₹
Jan 1st 2008	Goods purchased from Raju		10000	10000
Jan 2nd 2008	Goods purchased from Ramu on credit		20000	20000
Jan 3rd 2008	Goods returned to Raju		1000	1000
Jan 4th 2008	Goods returned to Ramu		2000	2000
Jan 5th 2008	Goods sold to Suresh on credit		30000	30000
Jan 6th 2008	Goods sold to Mahesh		40000	40000
Jan 7th 2008	Goods returned ~~by~~ from Mahesh		4000	4000
Jan 8th 2008	Goods returned by Suresh		3000	3000
Jan 9th 2008	Building sold to venkat		50000	50000
Jan 31st 2008	furniture purchased from kishore		5000	5000

2. Write Journal Entries in the books of Mr. Bhavani Sankar from the following transactions 2002, Jan.1st Business commenced with Rs. 15,000 Jan.2nd. Cash paid into bank Rs. 10,000 Jan. 3rd. Sold goods for cash Rs. 7,000 Jan.

4th. Purchased goods from Vijay Rs. 3,000 Jan. 5th. Machinery Purchased for Rs. 5,000 Jan.30th Rent paid Rs. 2,000 Jan 31st Depreciation charged on Machinery Rs. 3,000 Jan 31st Depreciation charged on Furniture Rs.500.

(2) In the books of Mr. Bhavani Sankar

Journal Entries.

Date	Particulars	LF	Debit ₹	Credit ₹
Jan 1, 2002	Bhavani Sankar commenced business with cash		15000	15000
Jan 2, 2002	Cash paid into bank		10000	10000
Jan 3, 2002	Sold goods for cash		7000	7000
Jan 4, 2002	Purchased goods from Vijay		3000	3000
Jan 5, 2002	Machinery purchased		5000	5000
Jan 30, 2002	Rent paid		2000	2000
Jan 31, 2002	Depreciation charged on Machinery		3000	3000
Jan 31, 2002	Depreciation charged on furniture		5000	5000

3. Prepare Journal Entries in the books of Mr. Kiran from the following transactions and write ledger accounts. 2013, May 1st Insurance paid by cheque Rs.3,000 May 9th Telephone Rent Paid in cash Rs.2,000 May 10th Stationery Purchased for Rs.1,000 May 11th Telegrams sent to New Delhi Rs.2,500 May 12th Advertisement charges paid in cash Rs.5,000 May 13th Machinery Purchased for Rs.90,000 May 14th Furniture purchased for

personal use Rs.30,000 May 13th Depreciation charged on Machinery Rs.9,000 May 14th Depreciation charged on Furniture Rs.3,000 May 15th Repairs Paid on Buildings Rs.15,000 May 16th Rent received for Rs.6,000.

(3) In the books of Mr. Kiran Journal Entries.

Date	Particulars	L.F	Debit ₹	Credit ₹
May 1, 2013	Insurance paid by cheque		3000	3000
May 9, 2013	Telephone rent paid in cash		2000	2000
May 10, 2013	Stationery Purchased		1000	1000
May 11, 2013	Telegrams sent to New Delhi		2500	2500
May 12, 2013	Advertisement Charges paid in cash		5000	5000
May 13, 2013	Machinery Purchased		90000	90000
May 14, 2013	Furniture Purchased for personal use		30000	30000
May 13, 2013	Depreciation charged on Machinery		9000	9000
May 14, 2013	Depreciation charged on furniture		3000	3000
May 15, 2013	Repairs paid on Buildings		15000	15000
May 16, 2013	Rent recieved		6000	6000

10) Similar question below

From the following ledger balances prepare trial balance :
Capital ₹ 20,800, Rent outstanding ₹ 1,420, Amount due to Param, ₹ 15,000, Drawing ₹ 2,800, Goodwill ₹ 12,000, Interest received ₹ 2,000, Discount received ₹ 1,580, Amount due from Deepan ₹ 26,000.

Solution

Trial Balance

Name of Accounts	L.F.	Debit Balance (Rs)	Credit Balance (Rs)
Capital			20,800
Outstanding Rent			1,420
Due to Param			15,000
Drawings		2,800	
Goodwill A/c		12,000	
Interest Received			2,000
Discount Received			1,580
Due from Deepan		26,000	
Total		**40,800**	**40,800**

PART B

1. Define Financial Accounting. Explain the importance and Limitations of Financial Accounting.

Financial Accounting concerns with providing information to external users. It refers to the preparation of general-purpose reports for use by persons outside a business enterprise, such as shareholders (existing and potential), creditors, financial analysts, labour unions, government authorities, and the like. Financial accounting is oriented towards the preparation of financial statements which summarise the results of operations for selected periods of time and show the financial position of the business at particular dates.

Importance of Financial Accounting:

Financial accounting is integral to companies of all sizes because it helps in the following importance below: They are three important points.

Communication of information externally.

The statements and reports generated by financial accounting are used to communicate information about the overall health and well-being of the company to external parties. Such external users may include suppliers, banks, leasing companies, etc. who are not part of the company but require all this information to analyse the progress of the company and compare it with their expectations.

Communicate information internally

A company's finance team or its employees who are interested in stock-based compensation etc. constitute the internal users of the information generated by financial accounting practices. The reports generated with the help of financial accounting skills are helpful for this purpose as well.

Comparison through analysis

Since financial accounting requires the use of standardised guidelines, the financial statements generated by all companies are comparable, providing a standard method of analysis.

Limitations of Financial Accounting:

- Does not record all events: Only the transactions of a financial character will be recorded under book-keeping. So it does not reveal a complete picture about the quality of human resources, locational advantage, business contacts etc.
- Does not reflect current values: The data available under book-keeping is historical in nature. So they do not reflect current values. For instance, we record the value of stock at cost price or market price, whichever is less. In case of building, machinery etc., we adopt historical cost as the basis. Infact, the current values of buildings, plants and machinery may be much more than what is recorded in the balance sheet.
- Estimates based on Personal Judgement: The estimate used for determining the values of various items may not be correct. For example, debtors are estimated in terms of collectibility, inventories are based on marketability, and fixed assets are based on useful working life. These estimates are based on personal judgement and hence sometimes may not be correct.
- Inadequate information on costs and Profits: Book-keeping only provides information about the overall profitability of the business. No information is given about the cost and profitability of different activities of products or divisions

2. Explain with examples how you would use ratio analysis to understand financial statements?

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

Ratio Analysis: Ratio is an expression of one number that is related to another. It is one of the methods of analysing financial statements. Ratio analysis facilities the presentation of the information of the financial statements are simplified and summarised from. Ratio is a measuring of two numerical positions. It expresses the relation between two numeric figures.

The following are the main uses of Ratio analysis:

(i) Useful in financial position analysis: Accounting reveals the financial position of the concern.

This helps banks, insurance companies and other financial institutions in lending and making investment decisions.

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

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

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

(v) Useful in locating the weak spots of the business: Accounting ratios are of great assistance

3. Define Account. Illustrate different types and principles of Accounts (Rules of Debit and Credit).

In banking, an account refers to an arrangement by which a financial institution accepts a customer's financial assets and holds them on behalf of the customer at his or her discretion.

Three classes of accounts are maintained for recording all business transactions.

They are:

1.Personal accounts

2.Real accounts

3.Nominal accounts

1. Personal Accounts: Accounts which are transactions with persons are called “Personal Accounts” .A separate account is kept on the name of each person for recording the benefits received from ,or given to the person in the course of dealings with him.

2. Real Accounts: The accounts relating to properties or assets are known as “Real Accounts”..A separate account is maintained for each asset owned by the business.

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

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

Accounting is the process of recording financial transactions pertaining to a business. The accounting process includes summarising, analysing, and reporting these transactions to oversight agencies, regulators, and tax collection entities.

Every business transaction which can be measured in monetary terms finds a place in the accounting transactions of a firm. In order to record such transactions, a system of debit and credit has been devised, which records such events through two different accounts.

The net effect of these accounting entries is the same in terms of quantity. However, by debiting and crediting two different accounts, the correct and apt accounting treatment can be depicted.

- A **debit** is an accounting entry that either increases an asset or expense account. Or decreases a liability or equity account. It is positioned on the left in an accounting entry.

- A **credit** is an accounting entry that increases either a liability or equity account. Or decreases an asset or expense account. It is positioned on the right in an accounting entry.
- Whenever an accounting transaction happens, a minimum of two accounts is always impacted, with a debit entry being recorded against one account and a credit entry being recorded against another account. There is no upper limit to the number of accounts involved in a transaction but the minimum cannot be less than two accounts.
- The totals of the debits and credits for any transaction must always equal each other so that an accounting transaction is always said to be in balance. Thus, the use of debits and credits in a two column transaction recording format is the most essential of all controls over accounting accuracy. This is how debit and credit find their use.

The following are the rules of debit and credit which guide the system of accounts, they are known as the Golden Rules of accountancy:

- First: Debit what comes in, Credit what goes out.
- Second: Debit all expenses and losses, Credit all incomes and gains.
- Third: Debit the receiver, Credit the giver.

4. Define Double Entry System. Describe the advantages and Disadvantages of the Double Entry System.

Double entry system of booking is an accounting system which recognizes the fact that every transaction has two aspects and both aspects of the transaction are recorded in the books of accounts. In other words, it recognizes that in order to receive some value, an equal value needs to be given.

Advantages of double entry system

- In contrast to a single entry, this is a scientific method of tracking business transactions. It assists in the rechecking and cross-checking of accounting documents.
- Both sides of a transaction are registered as debit and credit in this system, so we keep separate accounts for the purchase and payment.
- When we pass an entry on both sides, the account is automatically reviewed in this method. We will quickly find the error if both sides of the trial balance are not balanced.

- The profit and loss account indicates how much profit or loss was made over a given time.
- As long as we have the accounting books, we can analyse the profit and loss report and balance sheet of any two or more years.
- Since any transaction has two records, misappropriations and frauds can be easily identified.
- We will calculate the financial status of the company at the end of the year by preparing a profit and loss report and a balance sheet.

Disadvantages of double entry system

- The double-entry system is complex in nature since it must respond to various accounting standards and principles.
- Maintaining accounting books takes more time, which necessitates the recruitment of more staff, leading to a cost increase.
- Since their fees are too high, small companies cannot afford to hire anyone with proper accounting skills.
- Every transaction must be documented twice, resulting in larger books or the need for a more efficient computer to process data in electronic form.

5. Outline the significance of Trial Balance. Sketch different methods of preparing Trial Balance.

A trial balance is a statement of debit and credit balances. It is prepared on a particular date with the object of checking the accuracy of the books of accounts. It indicates that all the transactions for a particular period have been duly entered in the book, properly posted and balanced. The trial balance doesn't include stock in hand at the end of the period. All adjustments required to be done at the end of the period including closing stock are generally given under the trial balance.

There are three methods in which a Trial Balance can be prepared. Which are as follows :

- Total Method or Gross Trial Balance
- Balance Method or Net Trial Balance
- Compound Method

Total Method or Gross Trial Balance:

Under this method, two sides of the accounts are totaled. The total of the debit side is called the “debit total” and the total of the credit side is called the “credit total”. All the debit totals are entered on the debit side of the Trial Balance while the credit total is entered on the credit side of the Trial Balance

If any particular account has a total on one side, it will be entered either in the debit column or the credit column as the case may be.

Advantage

- It promotes the arithmetical accuracy of the accounts.
- Extraction of ledger balances is not required at the time of preparation of Trial Balance.

•Net Trial Balance or Balance Method:

Under this method, all the ledger accounts are balanced. The balancing figure may be either a “debit balance” or “credit balance”.

Advantage

o It helps in the easy preparation of final accounts.

o Time and labour can be saved in constructing a Trial Balance following this method.

- Compound Method:

Under this method, totals of both the sides of the accounts are written in the separate columns. Along with this, the balances are also written in the separate columns. Debit balances are written in the debit column and credit balances are written in the credit column of the Trial Balance.

Advantage

o It offers the advantage of both methods.

6. List out different types of Accounting Concepts and Conventions.

Accounting is a system evolved to achieve a set of objectives. In order to achieve the goals, we need a set of rules or guidelines. These guidelines are termed here as “BASIC ACCOUNTING CONCEPTS”. The term concept means an idea or thought. Basic accounting concepts are the fundamental ideas or basic assumptions underlying the theory and profit of FINANCIAL ACCOUNTING.

These concepts help in bringing about uniformity in the practice of accounting. In accountancy following concepts are quite popular.

1. BUSINESS ENTITY CONCEPT: In this concept “Business is treated as separate from the proprietor”. All the Transactions recorded in the book of Business and not in the books of proprietor. The proprietor is also treated as a creditor for the Business.

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

3.MONEY MEASUREMENT CONCEPT: In this concept “Only those transactions are recorded in accounting which can be expressed in terms of money, those transactions which can not be expressed in terms of money are not recorded in the books of accounting”.

4.COST CONCEPT: Accounting to this concept, an asset is recorded at its cost in the books of account. i.e., the price, which is paid at the time of acquiring it. In the balance sheet, these assets appear not at cost price every year, but depreciation is deducted

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

6.DUAL ASPECT CONCEPT: According to this concept “Every business transactions has two aspects”, one is the receiving benefit aspect another one is giving benefit aspect. The receiving benefit aspect is termed as “DEBIT”, whereas the giving benefit aspect is termed as “CREDIT”. Therefore, for every debit, there will be corresponding credit.

ACCOUNTING CONVENTIONS

Accounting is based on some customs or usages. Naturally accountants here adopt that usage or custom. They are termed as convert conventions in accounting. The following are some of the important accounting conventions.

1.FULL DISCLOSURE: According to this convention accounting reports should disclose fully and fairly the information. They purport to represent. They should be prepared honestly and sufficiently disclose information which is if material interest to proprietors, present and potential creditors and investors.

2.MATERIALITY: Under this convention the trader records important factor about the commercial activities.

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

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

7. Summarise the importance of Balance Sheets. Draw the Performa of Balance sheet & Major involvements.

The term balance sheet refers to a financial statement that reports a company's assets, liabilities, and shareholder equity at a specific point in time. Balance sheets provide the basis for computing rates of return for investors and evaluating a company's capital structure.

The importance of balance sheet.

1. It helps in checking the arithmetical accuracy of books of accounts.
2. It helps in the preparation of financial statements.
3. It helps in detecting errors.
4. It serves as an instrument for carrying out the job of rectification of entries.
5. It is possible to find out the balances of various accounts at one place.

BALANCE SHEET OF .... AS ON...

TABLE 5.4: Trading and Profit and Loss Account

Liabilities	Amount	Assets	Amount
Creditors Bills payable	XXXX	Cash in hand	XXXX
Bank overdraft	XXXX	Cash at bank	XXXX
Loans	XXXX	Bills receivable	XXXX
Mortgage	XXXX	Debtors	XXXX
Reserve fund		Closing stock	XXXX
Capital xxxxxx		Investments	XXXX
Add: Net Profit		Furniture and fittings	XXXX
Less: Drawings	XXXX	Plats&machinery	XXXX
		Land & buildings	XXXX
		Patents, tm ,copyrights Goodwill	XXXX
		Prepaid expenses	XXXX
		Outstanding incomes	XXXX
	XXXX		XXXX

8. List out the advantages of the Journal. and Illustrate the importance of the ledger.

Advantages of the Journal

Journalizing the business transaction is done by the majority of businesses. Journal helps a business to keep a systematic record of its financial events. To know the advantages of maintaining the same, we can sum it in the following points:

- Journal records all the financial transactions of a business in one place on a time and date basis.
- The transactions are recorded, in support of a bill, to check the authenticity of each of these journal entries with their bills.
- There is less chance to avoid transactions as in a journal we record every transaction on a date basis.
- The accountant writes each journal entry’s narration below every journal entry so that another auditor can audit it without any confusion.

- In a journal, we record these transactions which help in the deep analysis of the two accounts based on a double-entry system, and this prevents a minimum chance of mistake in the journal.
- Journal posts the transactions in their respective ledger accounts. Without making this journal, an accountant will be unable to make the ledger accounts.
- In case of a mistake in the ledger accounts, this can be easily rectified with the help of a journal or by passing a rectified journal entry in the journal.

The importance of the ledger:

1. Each account in Ledger will have separate headings.
2. Account transactions are recorded in a specific table.
3. Transactions are recorded on the account by date.
4. Each ledger has a column of two amounts. The amount of the transaction in both columns is written by debit and credit.
5. There is a column to write the ref number on both sides of the account.
6. The balance of the account is calculated at the end of the period.
7. After completion of the calculation, the Debit and Credit Column is closed by drawing two parallel lines below the sum of both sides.

9. What do you mean by final accounts? What are its constituents? Name them and briefly explain the purpose of each of them.

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

(i)The profitability of the business and

(ii) The soundness of the business.

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

Trading account

A trading account shows the results of the buying and selling of goods. This sheet is prepared to demonstrate the difference between the selling price and the cost price. The trading account is prepared to show the trading results of the business, example. gross profit earned or gross loss sustained by the business. It records the direct expenses of a business firm.

Profit and loss account

This account is prepared to ascertain the net profit/loss and expenses of a business during an accounting year.It records the indirect expenses of a business firm, like rent, salaries, and advertising expenses. Profit and loss a/c includes expenses and losses as well as income and gains, which have occurred in business other than the production of goods and services.

Balance sheet

The balance statement demonstrates the financial position of a business on a specific date. The financial position of a business is found by tabulating its assets and liabilities on a particular date. The excess of assets over liabilities represents the capital sunk into the business and reflects the financial soundness of a company.

10. Explain the significance of Trial Balance. Sketch different methods of preparing Trial Balance.

Trial balance helps in locating errors by providing a starting point for the location of errors committed if any. * Trial balance provides a basis for the preparation of final accounts. Under the total method, trial balance is prepared by taking up the total of debits and credit of all ledger accounts.

- Total Method or Gross Trial Balance:

Under this method, two sides of the accounts are totaled. The total of the debit side is called the “debit total” and the total of the credit side is called the “credit total”. All the debit totals are entered on the debit side of the Trial Balance while the credit total is entered on the credit side of the Trial balance.

Advantage • It promotes the arithmetical accuracy of the accounts.

- Extraction of ledger balances is not required at the time of preparation of Trial Balance.

Disadvantage • Preparation of final accounts is not possible.

- Net Trial Balance or Balance Method:

Under this method, all the ledger accounts are balanced. The balancing figure may be either a “debit balance” or “credit balance”.

Advantage o It helps in the easy preparation of final accounts.

o Time and labour can be saved in constructing a Trial Balance following this method.

Disadvantage o Errors may remain undisclosed irrespective of the agreement of Trial Balance.

- Compound Method:

Under this method, totals of both the sides of the accounts are written in the separate columns. Along with this, the balances are also written in the separate columns. Debit balances are written in the debit column and credit balances are written in the credit column of the Trial Balance.

Advantage o It offers the advantage of both methods.

Disadvantage o Lengthy process and more time consumed in the preparation of a Trial Balance.

Q11.Explain the importance of Trading Account. Illustrate the significance of Profit & Loss Account.

A trading account shows the results of the buying and selling of goods. This sheet is prepared to demonstrate the difference between the selling price and the cost price. The trading account is prepared to show the trading results of the business, example. gross profit earned or gross loss sustained by the business. It records the direct expenses of a business firm.

Trading account of MR. . . . . for the year ended . . . .

Table 11: Trading and Profit and Loss Account

Particulars	Amount	Particulars	Amount
To opening stock	XXXX	By sales	XXXX
To purchases xxxx		Less: returns xx	
Less: returns xx	XXXX	By closing stock	XXXX
To carriage inwards	XXXX		
To wages	XXXX		
To freight	XXXX		
To customs duty, octroi	XXXX		
To gas, fuel, coal, Water	XXXX		
To factory expenses	XXXX		
To other man. Expenses	XXXX		
To productive expenses	XXXX		
To gross profit c/d	XXXX		

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

PROFIT AND LOSS ACCOUNT

The business man is always interested in knowing his net income or net profit.Net profit represents the excess of gross profit plus the other revenue incomes over administrative, sales, Financial and other expenses.

Profit and loss account

This account is prepared to ascertain the net profit/loss and expenses of a business during an accounting year.It records the indirect expenses of a business firm, like rent, salaries, and advertising expenses. Profit and loss a/c includes expenses and losses as well as income and gains, which have occurred in business other than the production of goods and services.

PROFIT AND LOSS A/C OF MR. . . . . .FOR THE YEAR ENDED. . . . . .

Table 12: Trading and Profit and Loss Account

Particulars	Amount	Particulars	Amount
To office salaries	XXXX	By By Gross profit b/d	XXXX
To rent,rates,taxes	XXXX	By By Interest received	XXXX
To Printing and stationery	XXXX	By By Discount received	XXXX
To Legal Charges	XXXX	By By Commission received	XXXX
To Audit fee	XXXX	By By Income from investments	XXXX
To Insurance	XXXX	By By Dividend on shares	XXXX
To General expenses	XXXX	By By Miscellaneous investments	XXXX
To Advertisements	XXXX	By By Rent received	XXXX
To Bad debts	XXXX		
To Carriage outwards	XXXX		
To Repairs	XXXX		
To Depreciation	XXXX		
To interest paid	XXXX		
To Interest on capital	XXXX		
To Interest on loans	XXXX		
To Discount allowed	XXXX		
To Commission	XXXX		
To Net profit → (transferred To capital a/c)	XXXX		
	XXXX		XXXX

Q12. Draw the Performa of Trading account, Profit & loss account and Major involvements

Draw The tables in Q11 for trading account and profit & loss account.

Performa for trading account

Trading account for the year ended……….

To opening stock		xxx	By Sales	xxxx	
To purchases	xxxx		Less returns	xx	
Less returns	xxx			--------	xxxx
	------------	xxxx	By closing stock		xxx
To Direct expenses:			By gross loss (if loss)		xxx
Carriage inward		xxx			
Freight		xxx			
Octroi		xxx			
Dock dues		xxx			
Excise duty		xxx			
Royalty		xxx			
Motive power		xx			
Coal, gas, water		xxx			
Factory expenses		xxx			
To Gross Profit (if profit)		xxx			
		xxxxx			xxxxx

Performa for profit and loss account

Profit & Loss Account
(For the year ended…)

Dr. Cr.

Particulars	Amount	Particulars	Amount
To Gross loss b/d	Xxx	By Gross Profit b/d	Xxx
To Salaries	Xxx	By Discount Received	Xxx
To Office rent, rates and taxes	Xxx	By Commission Received	Xxx
To Printing & stationery	Xxx	By Bank Interest	Xxx
To Telephone expenses	Xxx	By Rent received	Xxx
To Postage & telegram	Xxx	By Dividend on shares	Xxx
To Discount Allowed	Xxx	By Interest earned on debentures	Xxx
To Insurance	Xxx	By Profit on sale of asset	Xxx
To Audit Fees	Xxx	By Net loss	Xxx
To Electricity charges	Xxx		
To Repairs & renewals	Xxx		
To Depreciation	Xxx		
To Advertisement	Xxx		
To Carriage Outwards	Xxx		
To Bad Debts	Xxx		
To Provision for Bad debts	Xxx		
To Selling commission	Xxx		
To Bank Charges	Xxx		
To Interest on loans	Xxx		
To Loss on sale of asset	Xxx		
To Net Profit	Xxx		
	xxx		xxx

Q13. What is the Double Entry System? Describe the advantages and Disadvantages of the Double Entry System.

Advantages of Double Entry System

- Double Entry System is Scientific System: This is a scientific system for recording business transactions as compared to a single entry. It helps to recheck and counter check the books of accounts.

- Double Entry System Record Complete Transactions: In this system, both sides of a transaction are recorded as debit and credit, so we record both purchase and payment in different accounts.
- Recheck the Accounts: In this system, the account is checked automatically when we pass an entry on both sides. If both sides of the trial balance are not matched we can easily find the mistake.
- Calculation of Profit or Loss: Profit and Loss Account provides information about the Profit earned or loss incurred during a period.
- Financial Position: The financial position of the business can be determined at the end of the year as we prepare a profit and loss account & Balance Sheet.
- Comparison becomes Easy: We can compare the profit and loss account & Balance Sheet of any two or more years as we have the accounting books.
- Helps a Manager: Manager can take decisions on the basis of the financial condition of the business and make plans accordingly.
- Easily Frauds and Misappropriations: Frauds and misappropriations can be easily found as every transaction has two records.

Disadvantages of Double Entry System

- Complex in nature: Double-entry system is complex in nature as it takes care of lots of rules and regulations of accounting standards & accounting principles.
- Time And Cost: It requires more time to maintain the accounting books so it involves more clerks which leads to an increase in cost.
- Not For Small Firms: Small firms can not hire a person who has proper knowledge of accounting as their charge is high.
- Expert knowledge: It requires expert knowledge of account to use the Double Entry System for book-keeping.
- Increase in book size: Every transaction needs to record in two places so the size of books will increase or those who have data in electronic form need a more powerful computer to handle that data.

Q14.Draw the Performa of Balance sheet and Major involvements

Balance sheet is defined as a statement which sets out the assets and liabilities of a business firm and which serves to as certain the financial position of the same on any particular date. On the left-hand side of this statement, the liabilities and the capital are shown. On the right-hand side all the assets are shown. Therefore, the two sides of the balance sheet should be equal. Otherwise, there is an error somewhere.

BALANCE SHEET OF . . . . AS ON. . . . .

Liabilities	Amount	Assets	Amount
Creditors Bills payable	XXXX	Cash in hand	XXXX
Bank overdraft	XXXX	Cash at bank	XXXX
Loans	XXXX	Bills receivable	XXXX
Mortgage	XXXX	Debtors	XXXX
Reserve fund		Closing stock	XXXX
Capital xxxxxx		Investments	XXXX
Add: Net Profit		Furniture and fittings	XXXX
Less: Drawings	XXXX	Plats&machinery	XXXX
		Land & buildings	XXXX
		Patents, tm ,copyrights Goodwill	XXXX
		Prepaid expenses	XXXX
		Outstanding incomes	XXXX
	XXXX		XXXX

Q15. Explain with examples how you would use ratio analysis to understand financial statements?

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

(i) Useful in financial position analysis: Accounting reveals the financial position of the concern.

This helps banks, insurance companies and other financial institutions in lending and making investment decisions.

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

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

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

(v) Useful in locating the weak spots of the business: Accounting ratios are of great assistance

in locating the weak spots in the business even though the overall performance may be efficient.

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

Q16.Discuss various ratios to analyse the financial statement?

A liquidity ratio is a type of financial ratio used to determine a company's ability to pay its short-term debt obligations. The metric helps determine if a company can use its current, or liquid, assets to cover its current liabilities. There are three types of liquid ratios:

1. Current Ratio

Current Ratio = Current Assets / Current Liabilities

2. Quick Ratio

Quick Ratio = (Cash + Accounts Receivables + Marketable Securities) / Current Liabilities

3. Cash Ratio

Cash Ratio = (Cash + Marketable Securities) / Current Liabilities

Profitability Ratios

This type of ratio helps in measuring the ability of a company in earning sufficient profits.

The types of profitability ratios are: –

Gross Profit Ratios: Gross Profit Ratio = (Gross Profit / Net Sales) * 100

Net Profit Ratio:

Net Profit Ratio = (Net Profit / Net Sales) * 100

Solvency Ratios

Solvency ratios can be defined as a type of ratio that is used to evaluate whether a company is solvent and well capable of paying off its debt obligations or not.

The types of solvency ratios are: –

Debt Equity Ratio: Total Debts / Shareholders Fund

Interest Coverage Ratio: Earnings Before Interest and Taxes / Interest Expense

Turnover Ratios

Turnover ratios are used to determine how efficiently the financial assets and liabilities of an organisation have been used for the purpose of generating revenues.

The types of turnover ratios are: –

Fixed Assets Turnover Ratio = Net Sales / Average Fixed Assets

Inventory Turnover Ratio = Cost of Goods Sold / Average Inventories

Earnings Ratios

Earnings ratio is used for the purpose of determining the returns that an organisation generates for its investors.

The types of earnings ratios are: –

Profit Earnings Ratio = Market Price per Share / Earnings per Share

EPS = (Net Income – Preferred Dividends) / (Weighted Average of Outstanding Shares)

Q17.Outline different types of Liquidity Ratios. Explain different types of Ratios.

Liquidity refers to the ability of an organisation to meet its current obligation. These ratios are used to measure the financial status of an organisation. These ratios help the management to make the decisions about the maintained level of current assets & current libraries of the business. The main purpose to calculate these ratios is to know the short term solvency of the concern. These ratios are

useful to various parties having interest in the enterprise over a short period – such parties include banks. Lenders, suppliers, employees and others.
Current Ratio:

$$CurrentRatio = \frac{CurrentAssets}{CurrentLiablities}$$

Note: The ideal ratio is 2:1 Current Assets = Cash, Bank, Cash Equivalents, Short term Investment, Stock or Inventory, Accounts Receivable, Prepaid Expenses, Receivable Incomes Current Liabilities = Accounts Payable, Notes Payable (Short term Financial Obligations), Bank Overdraft, Current portion of long-term debt, Current Lease payable, Accrued Income, Accrued Expenditure, Dividend Payable, Unearned Revenue, Prereceived Incomes, Outstanding Expenses.
Quick ratio or liquid ratio or acid test ratio: Quick Ratio:

$$CurrentRatio = \frac{QuickAssets}{CurrentLiablities}$$

Note: The ideal ratio is 1:1 Quick assets = cash in hand + cash at bank + short term investments + debtors + bills receivables short term investments are also known as marketable securities.
Super Quick Ratio/ Absolute Liquid Ratio/ Acid Test Ratio:

$$SuperQuickRatio = \frac{SuperQuickAssets}{CurrentLiablities}$$

Note: The ideal ratio is 0:1 or 1:2 Absolute liquid assets=cash in hand + cash at bank + short term investments + marketable securities.

Q18. Differentiate solvency and profitability ratios with examples.

Solvency refers to the ability of a business to honour long item obligations like interest and instalments associated with long term debts. Solvency ratios indicate long term stability of an enterprise. These ratios are used to understand the yield rate of the organisation.
Lenders like financial institutions, debenture, holders, banks are interested in ascertaining solvency of the enterprise. The important solvency ratios are:
Debt Equity Ratio:

$$DebtEquityRatio = \frac{TotalDebt}{Equity} or \frac{OutsidersFunds}{InsidersFunds}$$

Note:The ideal ratio is 2:1 Here, Outsiders funds = Debentures, public deposits, securities, long term bank loans + other long term liabilities. Shareholders funds

= equity share capital + preference share capital + reserves & surpluses + undistributed projects.

Pre Primary Ratio or Equity Ratio:

$$EquityRatio = \frac{TotalEquity}{TotalAssets}$$

The ideal ratio is 1:3 or 0.33:1

Capital Gearing Ratio:

$$CapitalGearingRatio = \frac{Equity, Resurvers\&Surpluses, UndistributedProfit}{OutsidersFunds, PreferenceShareCapital}$$

Debt to Total Fund ratio:

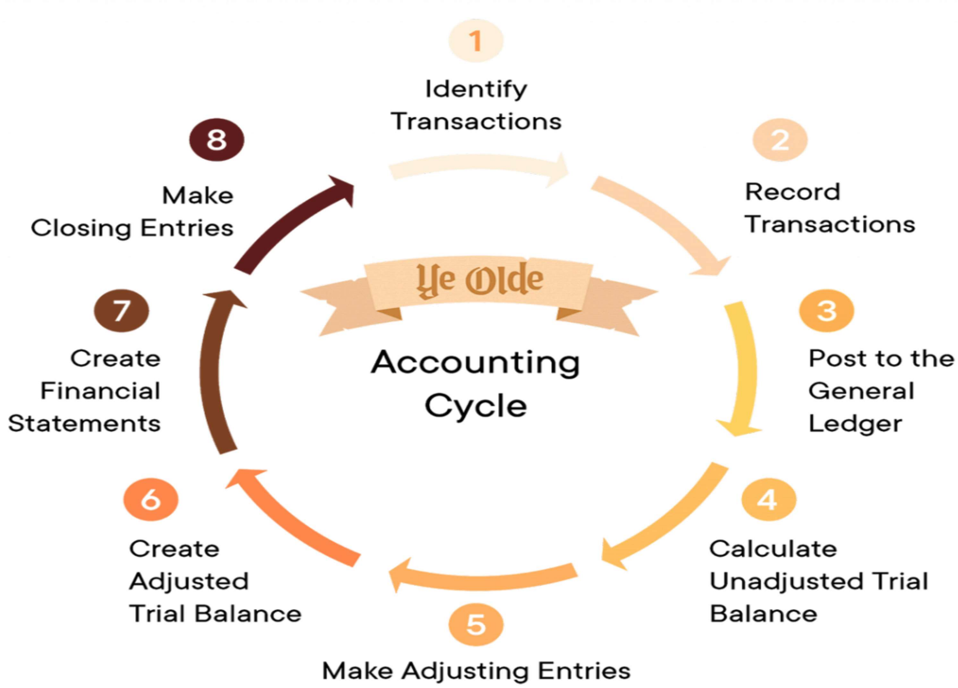
$$DebttoTotalFundRatio = \frac{OutsidersFunds}{CapitalEmployeed}$$

Capital Employed= Outsiders Funds and Shareholders Funds

Shareholders Funds = Debt and Equity

Note:The ideal ratio is 0.67 :1 or 2:3

Q19. Explain the accounting cycle with examples in detail?



Transactions

Transactions: Financial transactions start the process. If there were no financial transactions, there would be nothing to keep track of. Transactions may include a debt payoff, any purchases or acquisition of assets, sales revenue, or any expenses incurred.

Journal Entries

Journal Entries: With the transactions set in place, the next step is to record these entries in the company's journal in chronological order. In debiting one or more accounts and crediting one or more accounts, the debits and credits must always balance.

Posting to the General Ledger (GL)

Posting to the GL: The journal entries are then posted to the general ledger where a summary of all transactions to individual accounts can be seen.

Trial Balance

Trial Balance: At the end of the accounting period (which may be quarterly, monthly, or yearly, depending on the company), a total balance is calculated for the accounts.

Worksheet

Worksheet: When the debits and credits on the trial balance don't match, the bookkeeper must look for errors and make corrective adjustments that are tracked on a worksheet.

Adjusting Entries

Adjusting Entries: At the end of the company's accounting period, adjusting entries must be posted to accounts for accruals and deferrals.

Financial Statements

Financial Statements: The balance sheet, income statement, and cash flow statement can be prepared using the correct balances.

Closing

Closing: The revenue and expense accounts are closed and zeroed out for the next accounting cycle. This is because revenue and expense accounts are income statement accounts, which show performance for a specific period. Balance sheet accounts are not closed because they show the company's financial position at a certain point in time.

Q20. Classify the difference between capital expenditure and capital receipt.

Difference Between Capital Revenues (Receipt) and Capital Expenditure:

S. No.	Basis for comparison	Capital Revenues	Capital Expenditure
1.	Meaning	Capital revenues are a non-recurring incoming cash flow into the business that leads to the creation of liability and a decrease in company assets.	Capital expenditure is the expenditure that is incurred in acquiring a capital asset or improving the capacity of an existing one, resulting in the extension in its life years.
2.	Effect	Capital revenues effect is long Term.	Its effect is Long Term.
3.	Appears in	We show Capital revenues in the Balance Sheet on the liability side.	We show the Capital expenditures in the Income Statement & Balance Sheet
4.	Nature	These are non-recurring in nature.	These are Non-recurring in nature.
5.	Benefits	Its benefit is enjoyed for many years in the future.	Its benefit is received for more than one year
6.	Increase in value of assets	It decreases the value of asset or we can say that it increases the value of the liability.	It increases the value of assets.
7.	Example	Sale of the fixed asset, loan taken from bank etc.	Cost of land and building, furniture and fixtures etc.

PART C

Q1. Define Financial Accounting.

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

Q2. Explain the meaning of Journal.

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

The proforma of Journal is given below.

Date	Particulars	LF No	Debit	Credit
1998 Jan 1	Purchases account to cash account (being goods purchased for cash)		10,000/-	10,000/-

Q3. List out different types of Accounting Concepts.

In accountancy following concepts are quite popular.

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

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

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

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

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

6.**DUAL ASPECT CONCEPT**: According to this concept "Every business transaction has two aspects", one is the receiving benefit aspect another one is giving benefit aspect. The receiving benefit aspect is termed as "DEBIT", whereas the giving benefit aspect is termed as "CREDIT". Therefore,for every debit, there will be corresponding credit.

7.**MATCHING COST CONCEPT**: According to this concept "The expenses incurred during an

accounting period, e.g If revenue is recognized on all goods sold during a period, cost of those good sold should also be charged to that period.

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

Q4.Illustrate the meaning of the Double Entry System.

A double-entry system refers to the system in which the accounts are maintained in a book. All the transactions of a company are maintained in this book.

Double-entry books have two opposite and corresponding entries that are known as credit and debit. The right side is the credit and the left side is the debit. Double-entry meaning also refers to the transactions that are effective in two accounts one that includes debit and the other that includes credit. The accounting equation refers to the detection tool that detects all the errors present in the transactions.

Q5. Recall the meaning of purchase book

This book records all credit purchases only. Purchase of goods for cash and purchase of assets for cash. Credit will not be recorded in this book. Purchases book is otherwise called Purchases Day Book, Purchases Journal or Purchases Register.

Q6. Define subsidiary books

Subsidiary Books are books of Original Entry. They are also known as Day Book or special journals. We record transactions of similar nature are in Subsidiary Books. They are helpful in overcoming the limitations of journal books or journal entries.Subsidiary books are divided into eight types. They are:-

1. Purchases Book
2. Sales Book
3. Purchase Returns Book
4. Sales Returns Book
5. Cash Book
6. Bills Receivable Book
7. Bills Payable Book
8. Journal Proper

Q7. Explain the meaning of trial balance.

A trial balance is a bookkeeping worksheet in which the balance of all ledgers are compiled into debit and credit account column totals that are equal. A company prepares a trial balance periodically, usually at the end of every reporting period.

The general purpose of producing a trial balance is to ensure the entries in a company's bookkeeping system are mathematically correct.

Q8. List out the errors of principle

An error of principle is an accounting mistake in which an entry violates a fundamental principle of accounting or a fundamental accounting principle established by a company.

Q9. Outline few lines of Errors of Omission

When some transactions are completely omitted from the books of accounts or entered but not posted, they are treated as errors of omission.

If a transaction is omitted altogether from the books of **accounts**, there would be neither a **debit** nor a **credit** entry in the ledger. Hence, the **trial balance** will not be affected.

The types of Errors of Omission are:-

- Partial Omission
- Complete Omission

Q10. Write a note on provisions for doubtful debts.

The provision for doubtful debts is the estimated amount of bad debt that will arise from accounts receivable that have been issued but not yet collected. It is identical to the allowance for doubtful accounts. The provision is used under accrual basis accounting, so that an expense is recognized for probable bad debts as soon as invoices are issued to customers, rather than waiting several months to find out exactly which invoices turned out to be uncollectible.

Q11. Explain the Meaning of Revenue Receipt

Revenue receipts can be defined as those receipts which neither create any liability nor cause any reduction in the assets of the government. They are regular and recurring in nature and the government receives them in the normal course of activities.Revenue receipts include the proceeds from taxes and other duties levied by the Centre; the interest and dividend it receives on its investments; and the fees and charges the government receives for its services.

Simply put, revenue receipts must satisfy two basic conditions:

No liability: Revenue receipts do not create any liability for the government. For example, taxes received by the government, unlike borrowings, do not create any liabilities for it.

No asset reduction: Revenue receipts do not lead to any reduction in the government's assets. So, the government cannot show its earnings from sale of stake in a public-sector undertaking as revenue receipts because the stake sale resulted in reduction of its assets.

Q12. Write the meaning of Contra Entry.

Contra entry refers to transactions involving cash and bank accounts. In other words, any entry which affects both cash and bank accounts is called a contra entry. Contra in Latin means the opposite. It is more popularly known as contra voucher.

To make the definition further simpler, any transactions involving a transfer of cash between one cash a/c to another or one cash a/c to another bank a/c or one bank account to another is called a contra entry.

Q13. Illustrate the meaning of a ledger account.

An accounting ledger is an account or record used to store bookkeeping entries for balance-sheet and income-statement transactions. Accounting ledger journal entries can include accounts like cash, accounts receivable, investments, inventory, accounts payable, accrued expenses, and customer deposits. Accounting ledgers are maintained for all types of balance sheet and income statement transactions.

The accounting ledger is used to generate the key financial statements: the income statement, cash flow statement, and balance sheet for the company. "Posting" to an accounting ledger is the bookkeeping process of recording credits and debits. You can think of the accounting ledger as a collection of the chart of accounts, which is where all accounting journal entries end up.

Q14. Illustrate the meaning of Capital Expenditure.

Capital expenditures refer to funds that are used by a company for the purchase, improvement, or maintenance of long-term assets to improve the efficiency or capacity of the company. Long-term assets are usually physical, fixed and non-consumable assets such as property, equipment, or infrastructure, and that have a useful life of more than one accounting period.

Also known as CapEx or capital expenses, capital expenditures include the purchase of items such as new equipment, machinery, land, plant, buildings or warehouses, furniture and fixtures, business vehicles, software, or intangible assets such as a patent or license.

Q15. List out different types of Accounting Conventions.

Accounting is based on some customs or usages. Naturally accountants here adopt that usage or custom. They are termed as convert conventions in accounting. The following are some of the important accounting conventions.

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

2.MATERIALITY: Under this convention the trader records important factors about the commercial activities. In the form of financial statements if any unimportant information is to be given for the sake of clarity it will be given as footnotes.

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

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

Q16. Write a short note on Current ratio?

The current ratio is a liquidity ratio that measures a company’s ability to pay short-term obligations or those due within one year. It tells investors and analysts how a company can maximize the current assets on its balance sheet to satisfy its current debt and other payables.

Note: The ideal ratio is 2:1 Current Assets = Cash, Bank, Cash Equivalents, Short term Investment, Stock or Inventory, Accounts Receivable, Prepaid Expenses, Receivable Incomes Current Liabilities = Accounts Payable, Notes Payable (Short term Financial Obligations), Bank Overdraft, Current portion of long-term debt, Current Lease payable, Accrued Income, Accrued Expenditure, Dividend Payable, Unearned Revenue, Prereceived Incomes, Outstanding Expenses.

$$CurrentRatio = \frac{CurrentAssets}{CurrentLiablities}$$

Q17. Illustrate the formula for Operating ratio.

The operating ratio formula is the ratio of the company’s operating expenses to net sales. Operating expenses include administrative expenses, selling and distribution expenses, cost of goods sold,salary, rent, other labor costs, depreciation etc.

$$OperatingRatio = \frac{OperatingExpenses}{NetSales} \times 100$$

Q18. Define the formula for Debt Equity Ratio?

The debt-equity ratio is a measure of the relative contribution of the creditors and shareholders or owners in the capital employed in business.

$$DebtEquityRatio = \frac{TotalDebt}{Equity} or \frac{OutsidersFunds}{InsidersFunds}$$

Note:The ideal ratio is 2:1 Here, Outsiders funds = Debentures, public deposits, securities, long term bank loans + other long term liabilities. Shareholders funds = equity share capital + preference share capital + reserves & surpluses + undistributed projects.

Q19. List out the limitations of ratio analysis.

These limitations should be kept in mind while making use of ratio analyses for interpreting the financial statements. The following are the main limitations of ratio analysis.

1. False results if based on incorrect accounting data

2. No idea of probable happenings in future

3. Variation in accounting methods

4. Price level change

5. Only one method of analysis

6. No common standards

7. Different meanings assigned to the some term

8. Ignores qualitative factors

9. No use if ratios are worked out for insignificant and unrelated figure

Q20. What is the meaning of Return on Capital Employed?

Return on capital employed (ROCE) is a financial ratio that can be used to assess a company's profitability and capital efficiency. In other words, this ratio can help to understand how well a company is generating profits from its capital as it is put to use.

The ROCE ratio is one of several profitability ratios financial managers, stakeholders, and potential investors may use when analysing a company for investment.