UNIT – 1

Q1. Define Managerial Economics.

A. Managerial Economics has been defined by different scholars as follows :

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

----------M. H. Spencer and Louis Siegelman

2.”Managerial economics shows how economic analysis can be used in formulating police”.

---------- Joel Dean

3.”Managerial economics is designed to provide a rigorous treatment of those aspects of economic theory and analysis that are most use for managerial decision analysis”.

---------- J. L. Pappas and E. F. Brigham.

Q2. Explain nature of Managerial Economics.

A. NATURE OF MANAGERIAL ECONOMICS

It is assumed that the firm or the buyer acts in a rational manner . The buyer is carried away by the advertisements, incentives and so on, and, therefore, the natural behavior of the consumer will be rational is not a realistic assumption. Unfortunately, there are no other alternatives to understand the subject other than by making such assumptions. This is because the behavior of a firm or a consumer is a complex phenomenon.

The other features of managerial economics are explained as below:

1. **Close to microeconomics:**

Managerial economics is concerned with finding the solutions for different managerial problems of a particular firm. Thus, it is more close to microeconomics. The study of an individual consumer or a firm is called microeconomics

2. **Macroeconomics:**

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

***3. Normative statements*:**

A normative statement usually includes or implies the words 'ought'or'should'. They reflect people's moral attitudes and are expressions of what a team of people ought to do.

4. ***Prescriptive actions*:**

Prescriptive action is goal oriented. Given a problem and the objectives of the firm, it suggests the course of action from the available alternatives for optimal solution.

5. ***Offers scope to evaluate each alternative*:**

Managerial economics provides an opportunity to evaluate each alternative in terms of its costs and revenue. The managerial economist can decide which is the better alternative to maximize the profits for the firm.

6. ***Interdisciplinary:***

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

7. **Managerial economic is descriptive**:
8. **Managerial economic is application oriented**:

Q3. Explain Scope of Managerial Economics.

A. The scope of managerial economics refers to its area of study. Managerial economics refers to its area of study. Managerial economics is help to find out the optimal solution for different managerial problems such as *Production*, Capital Management Decisions, Pricing Decisions, Promotion Strategies, *Demand Analyses and Forecasting,etc.*

B

1. Production

It means inputs are transfer to output. Production analysis is in physical terms. While the cost analysis is in monetary terms cost concepts and classifications, cost-out-put relationships, economies.

2. Capital Management Decisions

Capital management decision carries lot of weight age in the organization. It deals with various options of capital employment and respective returns with that investment.

3. Pricing Decisions

Pricing plays a vital role in the success of product as well as the organization. Managerial Economics provides different types of prices for products. Managerial Economics has a close watch on the factors affecting the pricing.

4. Promotion Strategies

Whatever many be the quality of product, if it was not reached to final customer, it cannot get success. So, proper promotion has to be done in all products and services.

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5. **Demand Analyses and Forecasting:**

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

6. **Resource Allocation:**Managerial Economics is the traditional economic theory that is concerned with the problem of optimum allocation of scarce resources. Marginal analysis is applied to the problem of determining the level of output, which maximizes profit. .

***5.* Profit analysis:**Profit making is the major goal of firms. There are several constraints here an account of competition from other products, changing input prices and changing business environment hence in spite of careful planning, there is always certain risk involved.

***6.* Capital or investment analyses:**
Capital is the foundation of business. Lack of capital may result in small size of operations. Availability of capital from various sources like equity capital, institutional finance etc. may help to undertake large-scale operations.

Q4. Write about law of demand.

A. LAW OF DEMAND :

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

2. Generally, a person demands more at a lower price and less at a higher price. The relation of price to demand or sales is known in Economics as the Law of Demand.

3. The Law of Demand states that "higher the price, lower the demand and vice versa, other things remaining the same".

Q5. What are Giffen's goods?

A. The Giffen good or inferior good is an exception to the law of demand. When the price of an inferior good falls, the poor will buy less and vice versa. For example, when the price of maize falls, the poor are willing to spend more on superior goods than

on maize if the price of maize increases, he has to increase the quantity of money spent on it. Otherwise he will have to face starvation. Thus a fall in price is followed by reduction in quantity demanded and vice versa. “Giffen” first explained this and therefore it is called as Giffen’s paradox.

Q6. Explain Micro Economics linkage with other disciplines.

A. MANAGERIAL ECONOMICS RELATIONSHIP WITH OTHER DISCIPLINES:

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

1. **Relationship with economics:**

The relationship between managerial economics and economics theory may be viewed from the point of view of the two approaches to the subject Viz. Micro Economics and Marco Economics. Microeconomics is the study of the economic behavior of individuals, firms and other such micro organizations. Managerial economics is rooted in Micro Economic theory.

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2. **Management theory and accounting**:

Managerial economics has been influenced by the developments in management theory and accounting techniques. Accounting refers to the recording of pecuniary transactions of the firm in certain books.

3. **Managerial Economics and mathematics:**

The use of mathematics is significant for managerial economics in view of its profit maximization goal long with optional use of resources. The major problem of the firm is how to minimize cost, how to maximize profit.

4. **Managerial Economics and Statistics:**

Managerial Economics needs the tools of statistics in more than one way. A successful businessman must correctly estimate the demand for his product. He should be able to analyses the impact of variations in tastes.

5. **Managerial Economics and Operations Research:**

Taking effectives decisions is the major concern of both managerial economics and operations research. The development of techniques and concepts such as linear programming, inventory models and game theory is due to the development of this new subject of operations research in the postwar years.

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

The Theory of decision-making is a new field of knowledge grown in the second half of this century. Most of the economic theories explain a single goal for the consumer i.e., Profit maximization for the firm.

Q7. Describe elasticity of demand.

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

In the words of "Marshall", "The elasticity of demand in a market is great or small according as the amount demanded

increases much or little for a given fall in the price and diminishes much or little for a given rise in Price".

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

Q8. Write about cross elasticity of demand.

A. CROSS ELASTICITY OF DEMAND:

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

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

Q9. Explain Demand Forecasting.

A. The information about the future is essential for both new firms and those planning to expand the scale of their production. Demand forecasting refers to an estimate of future demand for the product. Forecasting helps to assess the likely demand for products and services and to plan production accordingly

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.

Q10. Explain types of Demand Forecasting.

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

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

1. Short-term demand forecasting:

Short-term demand forecasting is limited to short periods, usually for one year. It relates to policies regarding sales, purchase, price and finances. It refers to existing production capacity of the firm. Short-term forecasting is essential for formulating is essential for formulating a suitable price policy. If the business people expect of rise in the prices of raw materials of shortages, they may buy early... Production may be undertaken based on expected sales and not on actual sales.

2. Long – term forecasting:

In long-term forecasting, the businessmen should now about the long- term demand for the product. Planning of a new plant or expansion of an existing unit depends on long-term demand. Similarly a multi product firm must take into account the demand for different items. When forecast are mode covering long periods, the probability of error is high. It is very difficult to forecast the production, the trend of prices and the nature of competition

UNIT - 2

Q1. What is Production function.

A.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

Definition:

Samuelson defines the production function as "the technical relationship which reveals the maximum amount of output capable of being produced by each set of inputs". It is defined for a given state of technical knowledge.

Q2. Expalin input-output relationship or production fuction.

A. Input-OutputRelationship or Production Function :

The inputs for any product or service are land, labour, capital, organization and technology. In other words, the production here is the function here of these five variable inputs. Mathematically, this is expressed as

Q=F (L1, L2, C, O, T)

where, L1 =land

L2 =labour

C = capital

O = organization

T = technology

Where Q is the quantity of production, f explains the function, that is, the type of relation between inputs and outputs these inputs have been taken in conventional terms. In reality, materials also can be included in a set of inputs.

In a specific situation, some factors of production may be important and the relative importance of the factors depends upon the final product to be manufactured. For example, in the case of the software industry, land is not an input factor as significant as that in case of an agricultural.

Q3. Explain ProductionFunction with One Variable Inputs and Laws Of Returns .

A. 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".

Three stages of law:

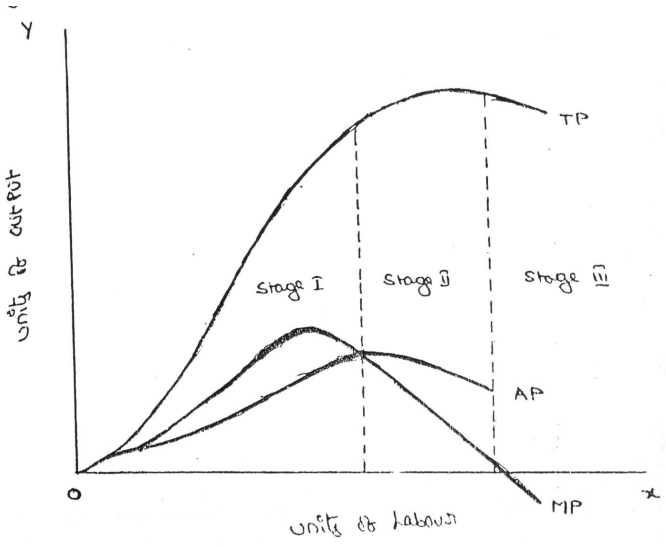
The behaviors of the Output when the varying quantity of one factor is combines with a fixed quantity of the other can be divided in to three district stages. The three stages can be better understood by following the table.

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

Above table reveals that both average product and marginal product increase in the beginning and then decline of the two marginal products drops of faster than average product.

Total product is maximum when the farmer employs 6th worker, nothing is produced by the 7th worker and its marginal productivity is zero, whereas marginal product of 8th worker is '-10', by just creating credits 8th worker not only fails to make a positive contribution but leads to a fall in the total output.

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



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Q4. Explain Isoquants.

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

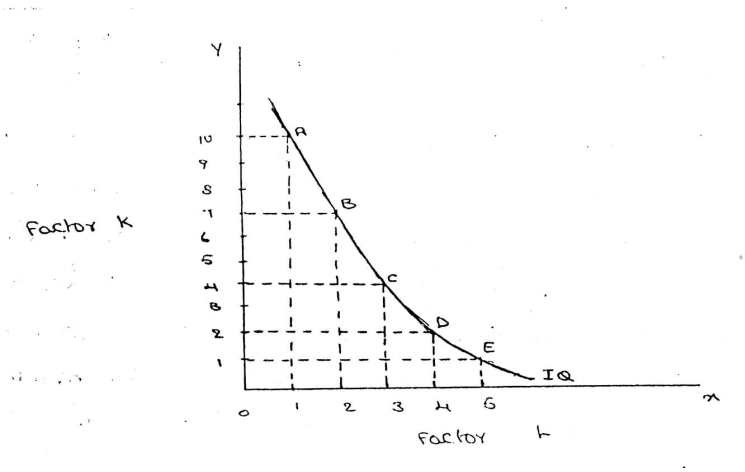
Isoquants are the curves, which represent the different combinations of inputs producing a particular quantity of output. Any combination on the isoquant represents the some level of output.

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

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.

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



Q5. Explain the features of an isoquant.

A.**FEATURES OF AN ISOQUANT**

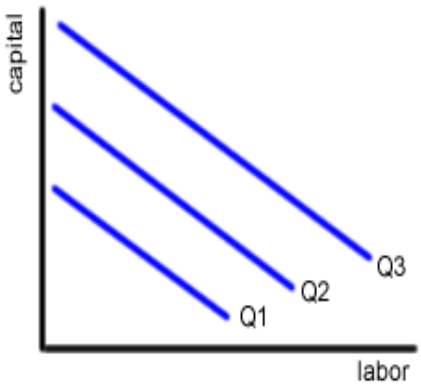
(1).**DOWNWARD SLOPING:-**Isoquants are downward sloping curves because, if one input increases, the other one reduces. There is

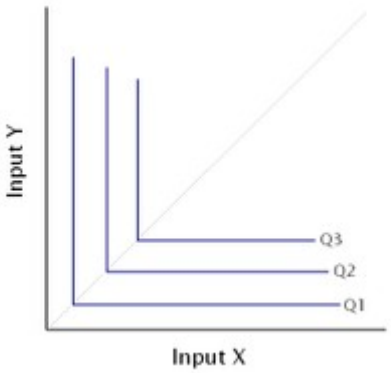
no question of increase in both the inputs to yield a given output.

(2).**CONVEX TO ORIGIN:-**Isoquants are convex to the origin. It is because the input factors are not perfect substitutes. One input factors were perfect substituted by other input factor in a 'diminishing marginal rate'. If the input factors were perfect substitutes, the isoquant would be a falling straight line.

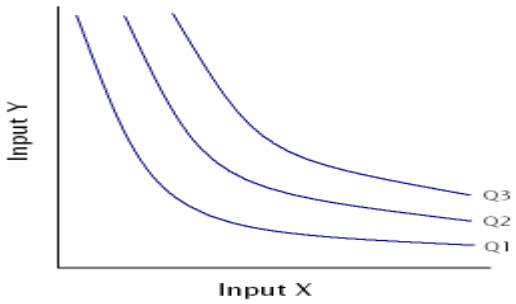
(3).**DO NOT INTERSECT:-**Two isoproducts do not intersect with each other. It is because, each of these denote a particular level of output. If the manufacturer wants to operate at a higher level of output, he has to switch over to another isoquant with a higher level of output and vice versa.

(4).**DO NOT TOUCH AXES:-**The isoquant touches neither x-axis nor y-axis, as both inputs are required to produce a given product.





isoquant perfect substitute isoquant not perfect substitute



It showing different volume of output

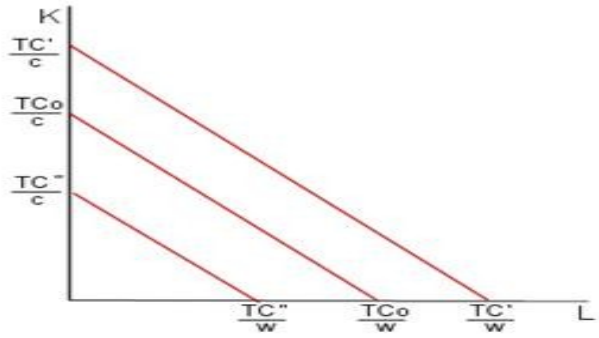
Q6. Exaplin Iso Costs.

A. **Definition:** A firm can produce a given level of output using efficiently different combinations of two inputs. For choosing efficient combination of the inputs, the producer selects that combination of factors which has the lower cost of production. The information about the cost can be obtained from the ***isocost lines.***

Explanation:

An isocost line is also called ***outlay line or price line or factor cost line.*** An isocost line shows all the combinations of labor and capital that are available for a given total cost to-the producer..

In economics, the isocost is the set of combinations of goods that have the same total cost; this can be represented by a curve on a graph. In economics an `isocost` line shows all combinations of inputs which cost the same total amount



Isoquant and Isocost

Q7. Explain MRTS.

A.In economic theory, the **Marginal Rate of Technical Substitution** (**MRTS**) - or **Technical Rate of**

Substitution (**TRS**) - is the amount by which the quantity of one input has to be reduced ($-\Delta x_2$) when one extra unit of another input is used ($\Delta x_1 = 1$), so that output remains constant ($y = \bar{y}$).

$$MRTS(x_1, x_2) = -\frac{\Delta x_1}{\Delta x_2} = \frac{MP_2}{MP_1}$$

where MP_1 and MP_2 are the marginal products of input 1 and input 2, respectively, and $MRTS(x_1,x_2)$ is **Marginal Rate of Technical Substitution** of the input x_1 for x_2.Along an isoquant, the MRTS shows the rate at which one input .

Combinations	Labour (units)	Capital (Units)	Output (quintals)	MRTS
A	20	1	50	
B	15	2	50	5:1
C	11	3	50	4:1
D	8	4	50	3:1
E	6	5	50	2:1
F	5	6	50	1:1

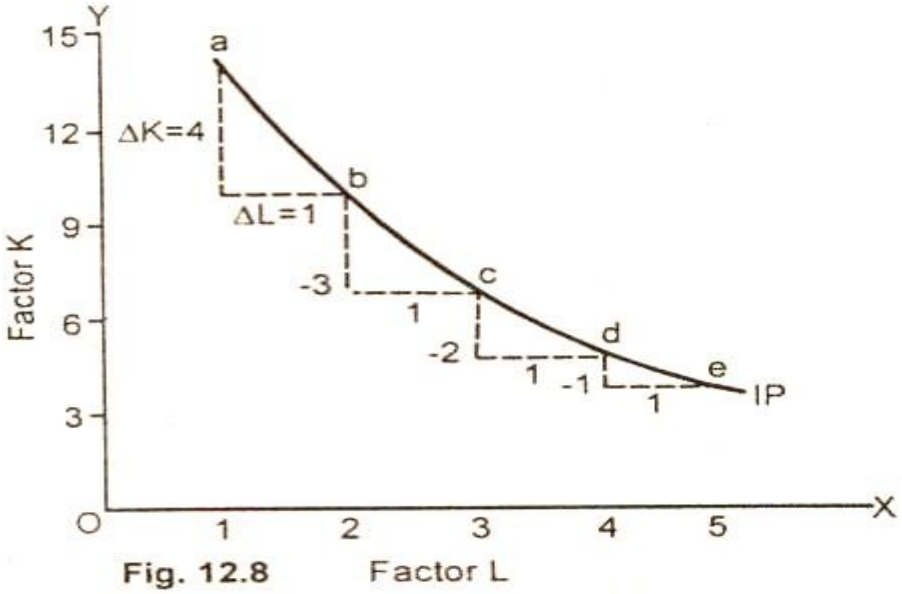
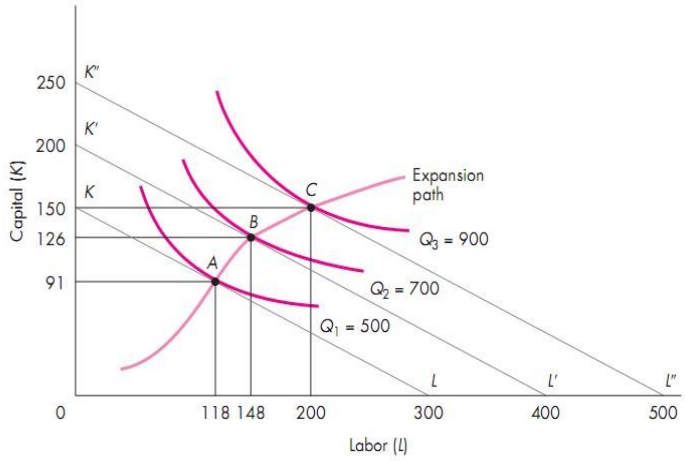


Fig. 12.8

Least cost combination of inputs

FIGURE 9.6
An Expansion Path



Q8. Explain Cobb-Douglas Production function.

A. Cobb-Douglas production function:

Production function of the linear homogenous type is invested by and first tested by C. W. Cobb and P. H. Dougles in 1899 to1922. This famous statistical production function is known as Cobb-Douglas production function. Originally the function is applied on the

empirical study of the American manufacturing industry. Cabb – Douglas production function takes the following mathematical form.

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

Where Y=output k=Capital L=Labour

The production function shows that one percent change in labour, capital reaming the same is associated with a 0.75 %change in output. One percent change in capital, labour reaming the same, is associated with a 0.25 %change in output.

Assumptions:

It has the following assumptions

1. The function assumes that output is the function of two factors viz. capital and labour.
2. It is a linear homogenous production function of the first degree
3. The function assumes that the logarithm of the total output of the economy is a linear function of the logarithms of the labour force and capital stock.
4. There are constant returns to scale
5. All inputs are homogenous(same)

Q9. Explain Economics of Scale.

A.ECONOMIES OF SCALE

The economics of scale result because of increase in the scale of production. Marshal divides the economies of scale into two groups:

1.Internal economies 2. External economies

Internal economies:

It refers to the economies in production cost which accrue to the firm alone whenit expands it output. the internal economies occur as results of increase in the scale of production.

The internal economies divide into following type:

1. **Managerial economies :**

As the firm expands the firm need qualified managerial personnel to handle each of its functions such as marketing, finace, ect functional specilisational ensure minimum wastage and lower the cost of productions in the long run.

2. **Commercial economies**

The transactions of buying and selling raw material and other operating supplies such as spares and so on. There could be cheaper saving in the procurement, transportation and storage costs. This will leads to lower cost and increase profits.

3. **Financial economies**

There could be cheaper credit facility from the financial institution to meet the capital expenditure or working capital requirement .a large firm to give security to financial institution

4. **Technical economies**

Increase in the scale of production follows when there is sophisticated technology available and the firm is in a position to hire qualified technology manpower to make use of it.

5. **Marketing economies**

As the firm grow lager and lager it can afford to maintain a full fledged marketing departmentindependently to handle the issues related to design of customer ,promotion ,marketing staff.

6. **Risk bearing economies**

As there is growth in size of firm there is increase in the risk also. Sharing in the risk with the insurance companies is the first priority for any firm. The firm insureit machinery and other assets against the fire theft ect.the lager firm can spread their risk so that they do not keep all their eggs in one basket.

7. **Economies of research and development.**

External economies

It refers to the entire firm in the industry, because of growth of the on industry as a whole or because of growth of industry.

1.Economies concentration

Because all firm are located at one place ,it is likely that there is better infrastructure in term of approach roads, tans potation ect

1. **Economies of R&D**

The entire firm can pool resource together to finance research and development activity and thus shares benefits of research.

2. **Economies of welfare**

There could be common facility such as canteen, industryhousing, community halls,ect which can be used in common by the employee in the whole industry.

Q10. Explain **BREAKEVEN ANALYSIS.**

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

1. ***Fixed cost:*** Expenses that do not vary with the volume of production are known as fixed expenses. Eg. Manager's salary, rent and taxes, insurance etc. It should be noted that fixed changes are fixed only within a certain range of plant capacity.
2. ***Variable Cost***: Expenses that vary almost in direct proportion to the volume of production of sales are called variable expenses. Eg. Electric power and fuel, packing materials consumable stores.
3. ***Contribution:*** Contribution is the difference between sales and variable costs and it contributed towards fixed costs and profit. It helps in sales and pricing policies and measuring the profitability of different proposals.

   Contribution = Sales – Variable cost

   Contribution = Fixed Cost + Profit.

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

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

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

Q11. Explain Break-even point.

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

Break-divide

Even-equal

Point-place or position

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

1. Break Even point (Units) = $\frac{\text{Fixed Expenses}}{\text{Contributi on per unit}}$
2. Break Even point (In Rupees) = $\frac{\text{Fixed expenses}}{\text{Contributi on}}$

UNIT – 3

Q1. What do you mean by Price?

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

Q2. Explain Price concepts.

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

The multiple prices is more serious in the case of items like cars refrigerators, coal, furniture and bricks and is of little significance for items like shaving blade, soaps, tooth pastes, creams and stationeries. Differences in various prices of any good are due to differences in transport cost, storage cost accessories, interest cost, intermediaries' profits etc.

Q3. Define Market.

A. Market is a place where buyer and seller meet, goods and services are offered for the sale and transfer of ownership occurs. A market may be also defined as the demand made by a certain group of potential buyers for a good or service. The former one is a narrow concept and later one, a broader concept.

Q4. Define Perfect competition.

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

Q5.Define Monopoly.

A. Monopoly:- If there is only one seller, monopoly market is said to exist. An extreme version of imperfect market is monopoly. Here a single seller completely controls the entire industry. It is only firm producing the given product in its industry. In case of monopoly, there is very little difference between the firm and industry. The firm is called monopolist or monopoly firm. Maruti-Suzuki enjoyed all the government protection for a long time when it enjoyed monopoly in respect of small cars. ‘

Q6. Explain Monopolistic Competition.

A. When large number of sellers produces differentiated products, monopolistic competition is said to exist. A product is said to be differentiated when its important features vary. It may be differentiated based on real or perceived differences. For cameras, the important features include Zoom lenses, focal length, memory, size of camera, aperture and exposure controls, flash, safety, digital day and date display, and the overall picture quality and so on.

Q7. Explain Duopoly

A. If there are two sellers, duopoly is said to exist. If Pepsi and coke are the two companies in soft drinks, this market is called duopoly. Basic facilities for satellite communication are presently provided by Mahan agar Telephone Nigam Limited (MNTL) and videsh sanchar Nigam Limited (VSNL). This market for satellite Communication can be referred to as duopoly.

Q8. Explain Oligopoly

A. Another variety of imperfect competition is oligopoly. If there is competition among a few sellers, oligopoly is said to exist. The examples are the car manufacturing companies (such as Maruti suzuki, Hindustan Motors, Daewoo, Toyota and so on), newspapers (such as The Hindu, Indian Express, times of india, Economic Times, Eenadu and so on). In oligopoly, each individual seller or firm can affect the market price

Q9. What is partnership. Describe its features.

A. 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 of partnership

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

Q10. What is a Joint Stock Company. Describe its features.

A. The joint stock company emerges from the limitations of partnership such as joint and several liability, unlimited liability, limited resources and uncertain duration and so on. Normally, to take part in a business, it may need large money and we cannot foretell the fate of business.

The main principle of the joint stock company from is to provide opportunity to take part in business with a low investment as possible say Rs.1000. Joint Stock Company has been a boon for investors with moderate funds to invest.

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

Features of Joint Stock Company

1. **Artificial person:** The Company has no form or shape. It is an artificial person created by law. It is intangible, invisible and existing only, in the eyes of law.
2. **Separate legal existence**: it has an independence existence, it separate from its members. It can acquire the assets. It can borrow for the company. It can sue other if they are in default in payment of dues, breach of contract with it, if any. Similarly, outsiders for any claim can sue it. A shareholder is not liable for the acts of the company. Similarly, the shareholders cannot bind the company by their acts.
3. **Voluntary association of persons**: The Company is an association of voluntary association of persons who want to

carry on business for profit. To carry on business, they need capital. So they invest in the share capital of the company.

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

UNIT - 4

Q1.What is a Capital.

A. Capital forms the base for the business. Capital, in general, does not mean only money. It may refer to money's worth also. Capital has different forms. Creativity, innovation or new ideas can be considered as one form of capital. Some people have ideas but they may not have money. There are some others who have money only. The ideal combination for business is to have both. Today, there are different sources of raising finance for many types of business provided we have the margin or the base money. In this chapter are restrict our discussion to money form of capital.

Q2. What is Fixed capital .

A. Fixed Capital:

Fixed capital is that portion of capital **which is invested in acquiring long-term assets such as land and buildings, plant and machinery, furniture and fixtures, and so on**. Fixed capital forms the skeleton of the business. It provides the basic assets as per the business. These assets are not meant for resale. They are intended to generate revenues.

Q3.Explain the features of Fixed capital.

A. The following are the features of fixed assets:

1. ***Permanent in nature:***Fixed capital is more or less permanent in nature. It is generally not withdrawn as long as the business carries on its business.
2. ***Profit generation****:* Fixed assets are the sources of profits but they can never generate profits by themselves. They use stocks, cash and debtors to generate profits.
3. ***Low quality****:* The fixed assets cannot be converted into cash quickly. Liquidity refers to conversion of assets into cash.
4. ***Amount of fixed capital****:* The amount of fixed capital of a company depends on a number of factors such as size of the company, nature of business, method of production and so on. A manufacturing company such as steel factory may require relatively large finance when compared to a service organization such as a software company.
5. ***Utilized for promotion and expansion****:* The fixed capital is mostly needed at the times of promoting the company to purchase the fixed assets or at the time of expansion/modernization, in other words, the need for fixed capital arises less frequently.

Q4.Explain types of Fixed Assets.

A.Types of Fixed Assets

Fixed assets can be divided into three types:

1. **Tangible Fixed Assets:**
   These are physical items which can be seen and touched. Most of the common fixed assets are land, buildings, machinery, motor vehicles, furniture and so on.
2. **Tangible Fixed Assets:**

These do not have physical form. They cannot be seen or touched. But these are very valuable to business. Examples are goodwill, brand names, trademarks, patents, copy rights and so on.

3. **Financial Fixed Assets:**
These are investments in shares, foreign currency deposits, government bonds, shares held by the business in other companies and so on.

Q5. What is Working capital

A. **Working Capital:**

Working capital is the flesh and blood of the business. It is that position of capital that makes a company work. It is not just possible to carry on the business with only fixed assets; working capital is a must. Working capital is also called ***circulating capital.*** It is used to meet regular or recurring needs of the business. The regular needs refer to the purchase of materials, payment of wages and salaries, expenses like rent advertising, power and so on.Finance is required for two purpose viz. **for it establishment and to carry out the day-to-day operations** of a business.

Q6.Explain the features of Working Capital.

A. Features of Working Capital:

1. ***Short life spans:*** Working capital changes in its form: from cash to stock to debtors; debtors to cash. The cash balances may be kept idle for a week or so, debtors have a life span of a few months, raw materials are held for a short-time until they go into production; finished goods are held for a short-time until they are sold.
2. ***Smooth flow of operations:*** Adequate amount of working capital enables the business to conduct its operations smoothly. It is therefore, called the 'flesh and blood' of the business.
3. ***Liquidity****:* The assets represented by the working capital can be converted into cash quickly within a short period of time unlike fixed assets.

4. ***Amount of working capital****:* The amount of working capital of a business depends on many factors such as size and nature of the business, production of wages and salaries, rent and other expenses and so on.
5. ***Utilize for payment of current expenses****:* The working capital is used to pay for current expenses such as suppliers or raw materials, payment of wages and salaries, rent and other expenses and so on.

Q7. What is Capital Budgeting and Methods of Capital Budgeting.

A.Capital budgeting **is the process of making investment decision in long-term assets** or courses of action. Capital expenditure incurred today is expected to bring its benefits over a period of time. These expenditures are related to the acquisition & improvement of fixes assets.

Capital budgeting is the planning of expenditure and the benefit, which spread over a number of years.

The methods of capital budgeting are –

1.Pay-back period method.

2.Accounting Rate of Returns.

3. Net Present Value Method,

Q8.Explain Pay-back Mathod.

A. Pay-back period method: It is the most popular and widely recognized traditional method of evaluating the investment proposals. It can be defined, as 'the number of years required to recover the original cash out lay invested in a project'.

According to Weston & Brigham, "**The pay back period is the number of years it takes the firm to recover its original investment by net returns before depreciation, but after taxes**".

According to James. C. Vanhorne, "The payback period is the number of years required to recover initial cash investment.

The pay back period is also called payout or payoff period. This period is calculated by dividing the cost of the project by the annual earnings after tax but before depreciation under this method the projects are ranked on the basis of the length of the payback period. A project with the shortest payback period will be given the highest rank and taken as the best investment. The shorter the payback period, the less risky the investment is the formula for payback period is

$$\text{Pay-back period} = \frac{\text{Cash outlay (or) original cost of project}}{\text{Annual cash inflow}}$$

Q9.Explain Accounting Rate of Return method.

A.It is an accounting method, which uses the accounting information repeated by the financial statements to measure the probability of an investment proposal. **It can be determine by dividing the average income after taxes by the average investment** i.e., the average book value after depreciation.

According to 'Soloman', accounting rate of return on an investment can be calculated as the ratio of accounting net income to the initial investment, i.e.

$$\text{ARR} = \frac{\text{Average net income after taxes}}{\text{}} \times 100$$

Average Investment

$$\text{Average net income after taxes} = \frac{\text{Total Income after Taxes}}{\text{No. Of Years}}$$

$$\text{Average investment} = \frac{\text{Total Investment}}{2}$$

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

Q10.Explain Net present value method.

A. Net present value method (NPV)

The NPV takes into consideration the time value of money. The cash flows of different years and valued differently and made comparable in terms of present values for this the net cash inflows of various period are discounted using required rate of return which is predetermined.

According to Ezra Solomon, **"It is a present value of future returns, discounted at the required rate of return minus the present value of the cost of the investment**."

According the NPV technique, only one project will be selected whose NPV is positive or above zero. If a project(s) NPV is less than 'Zero'. It gives negative NPV hence. It must be rejected. If there is

more than one project with positive NPV's the project is selected whose NPV is the highest.

The formula for NPV is

NPV= Present value of cash inflows – investment.

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

Co- investment

C1, C2, C3… Cn= cash inflows in different years.

K= Cost of the Capital (or) Discounting rate

D= Years.

Unit – 5

Q1.What is accounting.

A. MEANING OF ACCOUNTING - Thus, book-keeping is an art of recording the business transactions in the books of original entry and the ledges. Accountancy begins where Book-keeping ends. Accountancy means the compilations of accounts in such a way that one is in a position to know the state of affairs of the business.

Definition of Accounting:

Smith and Ashburne: "Accounting is a means of measuring and reporting the results of economic activities."

Q2.What is Journal.

A.*JOURNAL:* The word Journal is derived from the Latin word 'journ' which means a day. Therefore, journal means a 'day Book' in day-to-day business transactions are recorded in chronological order.

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

The proforma of Journal is given below.

Date	Particulars	L.F. no	Debit RS.	Credit RS.
1998 Jan 1	Purchases account to cash account(being goods purchased for cash)		10,000/-	10,000/-

Q3.What is Ledger.

A.LEDGER

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

Q4.Explain the process of ledger.

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

1. After the completion of Journal entries only posting is to be made in the ledger.
2. For each item in the Journal a separate account is to be opened. Further, for each new item a new account is to be opened.
3. Depending upon the number of transactions space for each account is to be determined in the ledger.
4. For each account there must be a name. This should be written in the top of the table. At the end of the name, the word “Account” is to be added.
5. The debit side of the Journal entry is to be posted on the debit side of the account, by starting with “TO”.
6. The credit side of the Journal entry is to be posted on the debit side of the account, by starting with “BY”.

Proforma for ledger:

LEDGER BOOK Particulars account

Date	Particulars	Lfn o	Amoun t	Date	Particular s	Lfn o	amount

Sales account

Date	Particulars	Lfn o	Amoun t	Date	Particular s	Lfn o	amount

Cash account

Date	Particulars	Lfn o	Amoun t	Date	Particular s	Lfn o	amount

Q5.Explain Trail Balance.

A.<u>TRAIL BALANCE</u>

*<u>DEFINITIONS</u>: <u>SPICER AND POGLAR :</u>*A trail balance is a list of all the balances standing on the ledger accounts and cash book of a concern at any given date.

<u>J.R.BATLIBOI:</u>

A trail balance is a statement of debit and credit balances extracted from the ledger with a view to test the arithmetical accuracy of the books.

Thus a trail balance is a list of balances of the ledger accounts' and cash book of a business concern at any given date.

PROFORMA FOR TRAIL BALANCE:

Trail balance for MR…… as on ……

NO	NAME OF ACCOUNT (PARTICULARS)	DEBIT AMOUNT (RS.)	CREDIT AMOUNT (RS.)

Q6.Explain Final accounts.

A.FINAL ACCOUNTS

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

(I)The profitability of the business and

(ii) The soundness of the business.

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

Q7.Explain Trading Account.

A.TRADING ACCOUNT

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

Trading account of MR……. for the year ended ……

Particulars	Amount	Particulars	Amount
To opening stock	Xxxx	By sales xxxx	
To purchases xxxx		Less: returns xxx	Xxxx
Less: returns xx	Xxxx	By closing stock	Xxxx
To carriage inwards	Xxxx		
To wages	Xxxx		
To freight	Xxxx		
To customs duty, octroi	Xxxx		
			Xxxx
To gas, fuel, coal, Water	Xxxx		

To factory expenses To other man. Expenses To productive expenses To gross profit c/d	Xxxx Xxxx Xxxx Xxxx		

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

Q8.Explain Profit and Loss Account.

A. PROFIT AND LOSS ACCOUNT

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

PROFIT AND LOSS A/C OF MR…….FOR THE YEAR ENDED……

PARTICULARS	AMOUNT	PARTICULARS	AMOUNT

TO office salaries	Xxxxxx	By gross profit b/d	Xxxxx
TO rent,rates,taxes	Xxxxx		Xxxxx
TO Printing and stationery	Xxxxx	Interest received	Xxxx
TO Legal charges	Xxxx	Discount received	Xxxxx
Audit fee	Xxxx	Commission received	
TO Insurance	Xxxx	Income from investments	Xxxx
TO General expenses	Xxxxx		Xxxx
TO Advertisements	Xxxx	Dividend on shares	xxxx
TO Bad debts	Xxxx	Miscellaneous investments	
TO Carriage outwards	Xxxxx	Rent received	
TO Repairs	Xxxxx		
TO Depreciation	Xxxx		
TO interest paid	Xxxxx		
TO Interest on capital	Xxxxx		
TO Interest on loans	Xxxxx		
TO Discount allowed	Xxxxxx		Xxxxxx
TO Commission			

TO Net profit------- (transferred to capital a/c)			

Q9.Explain Balance Sheet.

A. BALANCE SHEET

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

J.R.botliboi: A balance sheet is a statement with a view to measure exact financial position of a business at a particular date.

Thus, Balance sheet is defined as a statement which sets out the assets and liabilities of a business firm and which serves to as certain the financial position of the same on any particular date. On the left-hand side of this statement, the liabilities and the capital are shown. On the right-hand side all the assets are shown. Therefore, the two sides of the balance sheet should be equal. Otherwise, there is an error somewhere.

BALANCE SHEET OF …… AS ON …….

Liabilities and capital	Amount	Assets	Amount

Creditors	Xxxx	Cash in hand	Xxxx
Bills payable	Xxxx	Cash at bank	Xxxx
Bank overdraft	Xxxx	Bills receivable	Xxxx
Loans	Xxxx	Debtors	Xxxx
Mortgage	Xxxx	Closing stock	Xxxx
Reserve fund	Xxxx	Investments	Xxxx
Capital xxxxxx		Furniture and fittings	Xxxx
<u>Add</u>:			
Net Profit xxxx		Plats&machinery	Xxxx
-------		Land & buildings	Xxxx
xxxxxxx		Patents, tm ,copyrights	Xxxx
--------		Goodwill	
		Prepaid expenses	Xxxx
<u>Less</u>:		Outstanding incomes	Xxxx
Drawings xxxx	Xxxx		Xxxx
---------	XXXX		XXXX

Q10.What ar e the advantages of Final Balance.

<u>A.Advantages</u>: The following are the advantages of final balance.

1. It helps in checking the arithmetical accuracy of books of accounts.

2. It helps in the preparation of financial statements.
3. It helps in detecting errors.
4. It serves as an instrument for carrying out the job of rectification of entries.

Q11.WHAT IS A RATIO?

A. Ratio is simply a number expressed in terms of another. It refers to the numerical or quantitative relationship between two variables which are comparable. It is an expression derived by dividing one variable by the other. It is a statistical measure that provides an insight into the relationships between two variables. Ratios used rightly may even develop understanding and stimulate thinking. Ratios can be expressed in terms of percentages, proportions, and quotients also.

Q12.Exaplin Liquidity Ratio.

A.LIQUIDITY RATIOS:

Liquidity ratios express the ability of the firm to meet its short-term commitments as and when they become due. Creditors are interested to know whether the firm will be in a position to meet its commitments on time or not.

If the firm is not in a position to meet its short-term commitments such as payment of taxes, wages and salaries, and so on, then it cannot continue in business for long despite its strong capital base. Liquidity ratios help in identifying the danger signals for the firm in advance.

Q12.Explain Types of Liquidity Ratio.

A. Liquidity ratios can be classified into two types:

1. CURRENT RATIO:

2. QUICK RATIO

1. CURRENT RATIO:

Current ratio is the ratio between current assets and current liabilities. The firm is said to be comfortable in its liquidity position if the current ratio is 2:1. It is almost considered as a yardstick to assess short-term liquidity. However, it may vary from one industry sector to the other. In other words, for every rupee of current liability, there should be two rupees worth current assets. The interests of the creditors are safeguarded if the current ratio is at least 2:1.

CURRENT RATIO= CURRENT ASSETS/ CURRENT LIABILITES

2. QUICK RATIO:

Quick ratio is also called acid test ratio. It measures the firm's ability to convert its current assets quickly into cash in order to meet its current liabilities. It is the ratio between liquid assets and liquid liabilities. It supplements the information given by current ratio.

QUICK RATIO = QUICK ASSETS/ CURRENT LIABILITIES

Where Quick assets = Current assets – (Stock + Prepaid expenses)

Quick assets are those assets that can be converted into cash quickly. These are also called liquid assets. Since stock can be sold quickly, it is not included in the list of quick assets. All current assets except stock and prepaid expenses, if any, are called quick or liquid assets.

Q13. What are Activity Ratios.

A.<u>ACTIVITY RATIOS</u>:

Activity ratios express how active the firm is in terms of selling its stocks, collecting its receivables and paying its creditors. These are three types:

1.Inventory Turnover Ratio

2.Debtors Turnover Ratio

3. Debt collection period.

Q14.Explain Inventory Turnover Ratio.

A.INVENTORY TURNOVER RATIO:

It is also called stock turnover ratio. It indicates the number of times the average stock is being sold during a given accounting period. It establishes the relation between the cost of goods sold during a given period and the average amount of inventory outstanding during that period. The higher the inventory turnover ratio, the better is the performance of the firm in selling its stocks.

It helps in determining the liquidity of the firm by giving the rate at which inventories are converted into sales and then to cash. It also helps the financial manager to design an appropriate inventory policy so as to avoid piling of inventories. It is calculated as given below:

INVENTORY TURNOVER RATIO = COST OF GOODS SOLD/ AVERAGE INVETORY

Where cost of goods sold = Sales – Gross profit;

Average inventory is the average of opening stock at the beginning of the year and the closing stock at the end of the year, that is,

AVERAGE STOCK = OPENING STOCK + CLOSING STOCK / 2

A high inventory turnover ratio implies the efficiency of the firm whereas a low inventory turnover ratio indicates that the firm is not in a position a clear its stocks.

From inventory turnover ratio, we can also determine the inventory holding period. It is determined as given below:

INVENTORY HOLDING PERIOD = 364 DAYS/ INVENTORY TURNOVER RATIO

Q15.Explain Debtors Turnover Ratio.

A.DEBTORS TURNOVER RATIO:

Debtor's turnover ratio reveals the number of times the average debtors are collected during a given accounting period. In other words, It shows how quickly the firm is in a position to collect its debts. It is necessary to keep close monitoring of realization of debts because it directly affect the working capital position. In case, the firm is not in a position to collect its debts, to meet the working capital requirements, it has to borrow paying interest. This further erodes the profitability. The successful companies maintain the aged list of the debtors showing the details of when to collect, how much to collect and from which debtor.

Debtor's turnover ratio is calculated as given below:

DEBTORS TURNOVER RATIO = CREDIT SALES/ AVEREGE DEBTORS

Where credit sales refer to goods sold on credit. Average debtors are the average of opening and closing balances of debtors for the given accounting period.

A higher debtor's turnover ratio explains that the firm is efficient in collecting its debts whereas lower ratio signifies its inefficiency.

Q16.What is DEBT COLLECTION PERIOD.

A. Debt collection period refers to the time taken to collect the debts. From debtors turnover ratio, we can find out the debt collection period as follows.

DEBT COLLECTION PERIOD = 365 DAYS/ DEBTORS TURNOVER RATIO

The lesser the time, more is the efficiency of the firm and vice versa.

Q17.What is CAPITAL STRUCTURE RATIOS (LEVERAGE RATIOS).

A. Capital structure or leverage ratio is defined as 'the financial ratio, which focuses on the long-term solvency of the firm. The long-term solvency of the firm is always reflected in its ability to meet its long-term commitments such as payment of interest periodically without fail, repayment of principal as and when due.

DEBT-EQUITY (D/E) RATIO

INTEREST COVERAGE RATIO

Q18. Explain Debt-Equity ratio.

A.DEBT-EQUITY (D/E) RATIO:

Debt-equity ratio is the ratio between outsider's funds (debt) and insiders fund (equity). This is used to measure the firm's obligations to creditors in relation to the owner's funds. It is a measure of solvency. The yardstick for this ratio is 1:1. In other words, for every rupee of debt, there should be one rupee worth internal funds.

This is also industry/sector specific ratio. Depending upon the industry, the standard for the debt-equity ratio differs. For instance, in case of capital intensive industries such as shipping companies or steel manufacturing companies, the D/E ratio can be as high as 20:1. So this ratio has to be interpreted considering the nature of industry and competitors D/E ratios.

Debt-equity ratio is calculated as follows:

DEBT-EQUITY RATIO = (DEBT/EQUITY) OR (OUTSIDERS FUNDS/INSIDERS OR SHAREHOLDERS FUNDS)

Q19.Explain Interest Coverage Ratio.

A.INTEREST COVERAGE RATIO:

Interest coverage ratio is calculated to judge the firm's capacity to pay the interest on debt it borrows. It gives an idea of the extent the firm's earnings may contract before it is unable to pay interest payments out of current earnings. It is a very important ratio for the financial institutions to judge the ability of the borrower to service the load from the current year's profits. The higher the ratio, better it is. In other words, a higher ratio implies that the company has no problems in paying interest.

Interest coverage ratio is calculated as follows:

INTEREST COVERAGE RATIO = (NTE PROFIT BEFORE INTEREST AND TAXES/ FIXED INTEREST CHARGES)

The more the number of times of coverage, the better is the solvency position of the borrower.

Q20. Explain <u>PROFITABILITY RAITOS</u>.

A. Profitability ratios throw light on how well the firm is organizing its activities in profitable manner. The owners expect reasonable rate of return on their investment. The firm should generate enough profits not only to meet the expectations of the owners, but also to finance the expansion activities.

1. GROSS PROFIT RATIO:

Gross profit ratio is the ratio between gross profits to sales during a given period. It is expressed in terms of percentage. Gross profit is the difference between the net sales and the cost of goods sold.

GROSS PROFIT RATIO = (GROSS PROFIT/SALES) * 100

2. NET PROFIT RATIO:

Net profit ratio is the ratio between net profits after taxes and net sales. It indicates what portion of sales is left to the owners after operating expenses. Non-operating income such as interest on investments, gain on sale of fixed assets and so on are added to the operating profit and non-operation expenses such as loss on sale of fixed assets and so on are deducted from such profit. This is the net profit after adjusting non-operating income and non-operation expenses;

NET PROFIT RATIO = (NET PROFIT AFTER TAXES/NET SALES) * 100

3**. OPERATING RATIO:**

Operation ratio is the ratio between costs of goods sold plus operating expenses and the net sales. This is expressed as a percentage to net sales. The higher the operating ratio, the lower is the profitability and vice versa.

OPERATING RATIO = (OPERATING EXPENSES/NET SALES)*100

Where Operating expenses = (Cost of goods sold + Administrative expenses + Selling and distribution expenses)

4. EARNINGS PER SHARE (EPS):

EPS is the relationship between net profits and the number of shares outstanding at the end of the given period. This can be

compared with previous years to provide a basis for assessing the company's performance.

EPS = (NET PROFIT AFTER TEXES/NUMBER OF SHARES OUTSTANDING)

Q21. Explain Du Pont Chart.

A.DUPONT CHART:

The elements that go into computation of earning power have been built into the following chart by Du Pont Company for the first time and hence it is called Du Pont Chart.

It can be seen that the earning power is dependent on many variables. Any change in these factors will affect the earning power. If the selling price increases, it will increase the profits and vice versa. If the cost of goods sold increases, the profit margin declines. The earnings power will improve only if turnover or net profit or both increases.

Earning power is an important ratio that can be used to evaluate and compare the performances of departments as well as the firm as a whole. It is a valuable tool for inter-firm comparison also.