SCAD ENGINEERING COLLEGE,CHERANMAHADEVI

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

MG2452-ENGINEERING ECONOMICS AND FINANCIAL ACCOUNTING

SEMESTER VII

2 MARKS AND 16 MARKS QUESTIONS WITH ANSWERS

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MG2452-ENGINEERING ECONOMICS AND FINANCIAL ACCOUNTING

UNIT -1
INTRODUCTION
PART A

1. **What is meant by economics?**

Economics is the study on how scarce resources are converted into goods, commodities, services in order to satisfy unlimited wants and needs of consumers.

2. **Define engineering economics?**

Application of engineering or mathematical analysis and synthesis to decision making in economics. The knowledge and techniques concerned with evaluating the worth of commodities and services relative to their cost. Analysis of the economics of engineering alternatives

3. **What is managerial economics?**

Managerial economics is a study of application of managerial skills in economics,more over it help to find problems or obstacles in the business and provide solution for those problems.problems may be relating to costs,prices,forecasting the future market,human resource management,profits etc.

4. **Explain the objectives of managerial economics?**

1. growth the business 2. maximize the profit
maintain the demand and supply , 4. achives the goals

5. **Difference between Microeconomics and Macroeconomics**. Macroeconomics, on the other hand, is the field of economics that studies the behavior of the economy as a whole and not just on specific companies, but entire industries and economies. Microeconomics is the study of decisions that people and businesses make regarding the allocation of resources and prices of goods and services. This means also taking into account taxes and regulations created by governments.

6. **Define Managerial Decision.**

The typical decision-making process involves defining the problem, identifying alternatives, using a particular technique to select the best alternative and monitoring results. The problem definition may include a set of requirements and decision criteria.

7. **Explain the profit maximization theory of the firm.**

The firm maximises its profits when it satisfies the two rules. MC = MR and the MC curve cuts the MR curve from below. Maximum profits refer to pure profits which are excess above the average cost of production. It is the amount left with the entrepreneur after he has made payments to all factors of production, including wages of management.

8. Explain the wealth maximization theory of the firm.

The Shareholder-Wealth Maximization model (SWM) goal states that the objective of a firms management should be to maximize the present value of the expected future cash flows to equity owners (shareholders).

Consider cash flows to be the same as profits. Hence, the value of a firms stock is equal to the present value of all expected future profits, discounted at the the shareholders required rate of return.

9. Difference between Economics and Managerial economics

Economics deals mainly with the theoretical aspect only whereas Managerial

Economics deals with the practical aspect. Managerial Economics studies the activities of an individual firm or unit. Its analysis of problems is micro in nature, whereas Economics analyzes problems both from micro and macro point of views

PART B

1. Discuss the nature and scope of managerial economics.

SCOPE OF MANAGERIAL ECONOMICS

1. Demand Analysis and Forecasting: A major part of managerial decision-making depends on

accurate estimates of demand. Before production schedules can be prepared and resources employed,

a forecast of future sales is essential.

2. Cost Analysis: A study of economic costs, combined with the data drawn from the firm‟s

accounting records, can yield significant cost estimates that are useful for management decisions.

3. Production and Supply Analysis: Production analysis mainly deals with different production

function and their managerial uses. Supply analysis deals with various aspects of supply of a

commodity. Certain important aspects of supply analysis are: Supply schedule, curves and function.

Law of supply and its limitations, Elasticity of supply and Factors influencing supply.

4. Pricing Decisions, Policies and Practices: The important aspects dealt with under this area are:

Price Determination in various Market Forms, Pricing Methods, Differential Pricing, Product-line

Pricing and Price Forecasting.

5. Profit Management: Business firms are generally organized for the purpose of making profits and, in the long run, profits provide the chief measure of success. In this connection, an important point worth considering is the element of uncertainty existing about profits because of variations in costs and revenues which, in turn, are caused by factors both internal and external to the firm.

6. Capital Management: Capital management implies planning and control of capital expenditure.
The topics dealt with are: Cost of Capital, Rate of Return and Selection of projects.

BASIC ECONOMIC TOOLS IN MANAGERIAL ECONOMICS

1. Opportunity Cost Principle: By the opportunity cost of a decision is meant the sacrifice of alternatives required by that decision.

2. Incremental Principle: Incremental concept involves estimating the impact of decision alternatives on costs and revenues, emphasizing the changes in total cost and total revenue resulting from changes in prices, products, procedures, investments or whatever may be at stake in the decision.

3. Principle of Time Perspective: The economic concepts of the long run and the short run have become part of everyday language.

4. Discounting Principle: One of the fundamental ideas in economics is that a rupee tomorrow is worth less than a rupee today.

5. Equi-marginal Principle: This principle deals with the allocation of the available resources among the alternative activities.

5. Decision making is central in the process of management –Discuss.

DECISION MAKING ENVIRONMENTS

The decisions are also categorized in terms of the degree of certainty that exists in a situation. Thus every decision making situation falls into one of the four categories that exist along a certainty continuum namely Certainty, Risk, Uncertainty and Ambiguity
1. Certainty, 2. Risk, 3. Uncertainty, 4. Ambiguity:

2. EXPLAIN DIFFERENT TYPES OF MANAGERIAL DECISIONS?

THEORY OF DECISION MAKING

The theory of decision making is relatively a new subject that has significance for managerial economics. Much of economic theory is based on the single goal MAXIMISATION OF PROFIT, but theory of decision making recognizes the multiplicity of goals and the pervasiveness of uncertainity

ROLE OF MANAGERIAL ECONOMIST IN BUSINESS

The task of organizing and processing information and then making an intelligent decision based upon two general forms:

A. Task of making Specific decisions
B. Task of making General decisions

Specific decisions include

1. Production scheduling
2. Demand forecasting
3. Market research
4. Economic analysis of the industry
5. Investment appraisal
6. Security management appraisal
7. Advice on trade
8. Advice on foreign exchange management
9. Pricing and related decisions

General decisions include

1. Analysing the general economic condition of the economy
2. Analyzing the demand for the product
3. Analysing the general market condition of the economy

3.Explain Baumol's sales maximization theory.?

Baumol's Theory of Sales Revenue Maximization

Prof. J. Baumol has postulated seller revenue maximization approach as an alternative to profit maximization objective. The factors which explain the pursuance of this objective are following:

- **Difficulties in Pursuing Profit Maximization:** The modern firm faces lot uncertainties. As a result, short run profit maximizing behaviour is subordinated to the more important objective of long-run survival of the firm, for example, the firm‟s objective to pursue „good-will‟ in the long-run may clash with short-run profit objective.
- **Problems in the Measurement of Profit:** There are some problems about the measurement of profit as a measure of firm‟s efficiency. Profit may be the result of imperfection in the market and

profits may be the reward of monopolistic exploitation. Worse still, profit measurement process itself is dubious.

- **Social responsibility of the firm:** he firm is now-a-days not just an economic entity concerned with production or sales alone. The firm owes a responsibility to offer good, well paid jobs for employees, to provide efficient services to customers. In short the firm has a social responsibility beyond profit maximization.
- **Deliberate limitation of profits:** Firms may deliberately show lesser profits in the short run in order to discourage labourers from asking for higher wages or to discourage entry of new firms. Limited profits may be shown to prevent the government from taking over the business.
- **Aversion for business expansion:** Profit maximization requires business expansion and it means additional risk and responsibility. Businessmen may be satisfied with the prevent level of profit and may not expand.

4. What do you understand by the process of decision making? What are the main stages in the process of rational decision making?

STEPS IN DECISION MAKING PROCESS IN AN ORGANIZATION

1. Identification of problem: Decision making process begins with the identification of problem that means recognition of a problem. The managers have to use imagination, experience, and judgment in order to identify the real nature of the problem.

2. Diagnosis and analysis of the problem: In order to diagnose the problem correctly, a manager must obtain all pertinent facts and analyze them correctly. The most important part of the diagnosing problem is to find out the real cause or source of the problem. After analyzing the problem next phase of the decision making is to analyze problem. This process involves classifying the problem and gathering information.

3. Search for alternatives: A problem can be solved in many ways. All possible ways cannot be equally satisfying. Managers are advice to limit him to the discovery of the alternatives which are strategic or critical to the problem. The principle of limiting factor is given as "By recognizing and overcoming that factor that stand critically in the way of a goal, the best alternative course of action can be selected". Creative thinking is necessary to develop alternatives such as decision makers past experience, practices followed by others, and using creative techniques.

4. Evaluation of alternatives: Evaluation is the process of measuring the positive and negative consequences of each alternative. Some alternatives offer maximum benefit than others. An alternative is compared with the others. Management must set some criteria against which the alternatives can be evaluated. Criteria to weigh the alternative courses of action includes Risk- Degree of risk involved in each alternative, Economy of effort-Cost, time and effort involved in each alternative, Timing or Situation- Whether the problem is urgent & Limitation of resources- Physical, financial and human resources available with the organization.

5. Selecting an alternative: In this stage, decision makers can select the best alternatives. Optimum alternative is one which maximizes the results under given conditions.

6. Implementation and follow-up: Once an alternative is selected, it is put into action in systematic way. The future course of action is scheduled on the basis of selected alternatives. When a decision is put into action, it may yield certain results. These results provide the indication whether decision making and its implementation is proper. The follow-up action should be in the light of feedback received from the results.

RATIONAL DECISION MAKING PROCESS

1. Clear and well defined goal: The decision makers has clear and well defined goal that he is trying to maximize.

2. Uninfluenced by emotions: He is fully objective and rational uninfluenced by emotions.

3. Identification of the problem: The decision makers can identify the problem clearly and precisely.

4. Alternative course of action: He must have clear understanding of alternative course of action by which a goal can be reached under existing circumstances.

5. Analyze and evaluate alternatives: He must have the ability to analyze and evaluate alternatives in the light of the goals.

6. Effectively satisfies goal achievement: He must have a desire to come to the best solution by selecting the alternative that most effectively satisfies goal achievement.

UNIT II
DEMAND AND SUPPLY
PART A

1. State the law of demand?

The law of demand states that, if all other factors remain equal, the higher the price of a good, the less people will demand that good. In other words, the higher the price, the lower the quantity demanded. The amount of a good that buyers purchase at a higher price is less because as the price of a good goes up, so does the opportunity cost ofbuying that good.

2. List out the factors influencing demand.

Change in the number of buyers, Change in consumer incomes, Change in consumer tastes, Change in the prices of complementary and substitute goods.

3. **What do you understand by the term elasticity of demand?**

elasticity is the ratio of the percent change in one variable to the percent change in another variable. It is a tool for measuring the responsiveness of a function to changes in parameters in a unit-less way. a change in price, results in a greater than proportional change in the quantity demanded , a change in price results in a less than proportional change

4. **State any two factors influencing demand and supply.**

Productivity (Improvements in machines and production processes of a good or service) Inputs (Change in the price of inputs required to produce the good or service.) Change in the number of buyers, Change in consumer incomes,

5. **Give the formula for measuring price elasticity of demand.**

Proportionate change in qty demanded of good/Proportionate change in price of good x

6. **What is demand forecasting?**

Demand forecasting is the process of estimating the future demand, based on the analysis of their past and present behaviour. A forecast tries to define wheat one believers will happen in the future. Its aim is to provide information for planning and decision making.

7. **What is Delphi method? Explain its procedure.**

The Delphi method makes use of a panel of experts, selected based on the areas of expertise required. The Delphi method is an exercise in group communication among a panel of geographically dispersed experts. The technique allows experts to deal systematically with a complex problem or task.

8. **List out the factors affecting demand forecasting.**

- consumers may not be aware of actual demand in future
- answers from consumers are not real
- consumer response are biased
- plan of consumers change with time

9. **Distinguish between elastic and inelastic demand.**

Elastic demand is a product or resource demand whose price elasticity coefficient is greater than 1. This means the resulting percentage change in quantity demanded is greater than the percentage change in price. Inelastic demand is a product or resource demand for which the price elasticity coefficient is less than 1. This means the resulting percentage change in quantity demanded is less than the percentage change in price.

10. **What is Cross Elasticity of demand?**

An economic concept that measures the responsiveness in the quantity demand of one good when a change in price takes place in another good. The measure is calculated by taking the percentage change in the quantity demanded of one good, divided by the percentage change in price of the substitute good

PART B

1. **What is demand function? Explain the importance determinants of demand?**

Meaning of Demand

Demand: The term 'demand' is defined as the desire for a commodity which is backed by willingness to buy and ability to pay for it.

Demand function -- a behavioral relationship between quantity consumed and a person's maximum willingness to pay for incremental increases in quantity. It is usually an inverse relationship where at higher (lower) prices, less (more) quantity is consumed. Other factors which influence willingness-topay are income, tastes and preferences, and price of substitutes

Determinants of demand

General factors

• Change in the number of buyers
• Change in consumer incomes
• Change in consumer tastes
• Change in the prices of complementary and substitute goods

Additional factors related to luxury goods and durables

• Change in consumer expectations in future income
• Change in consumer expectations of future prices

Additional factors related to market demand

1. Population
2. Social, economic and demographic factors

2. Define price elasticity of demand. Describe the various methods of measuring the Same.

Elasticity of Demand;

Elasticity measures the extent to which demand will change

elasticity is the ratio of the percent change in one variable to the percent change in another variable. It is a tool for measuring the responsiveness of a function to changes in parameters in a unit-less way. Frequently used elasticities include price elasticity of demand, price elasticity of supply, income elasticity of demand, elasticity of substitution between factors of production and elasticity of intertemporal substitution

Price elasticity of demand

Price elasticity of demand measures the percentage change in quantity demanded caused by a percentchange in price.

$$E = \frac{\text{Proportionate change in qty demanded of good x}}{\text{Proportionate change in price of good x}}$$

Calculating the Percentage Change in Quantity Demanded

The formula used to calculate the percentage change in quantity demanded is: [QDemand(NEW) - QDemand(OLD)] / QDemand(OLD)

Calculating the Percentage Change in Price

Similar to before, the formula used to calculate the percentage change in price is: [Price(NEW) - Price(OLD)] / Price(OLD)

PEoD = (% Change in Quantity Demanded)/(% Change in Price)

ELASTIC DEMAND - a change in price, results in a greater than proportional change in the quantity
demanded ED>1.

INELASTIC DEMAND - a change in price results in a less than proportional change ED<1.

UNITARY DEMAND - a change in price results in n equal proportional change ED=1.

PERFECTLY ELASTIC DEMAND - demand changes even when price remains unchanged. ED= infinite

PERFECTLY INELASTIC DEMAND - change in price does not result in any change. ED=0

3. What is meant by demand forecasting ? Explain the methods used in demand Forecasting and their limitations.

DEMAND FORECASTING METHODS

There are several assumptions about forecasting:

1. There is no way to state what the future will be with complete certainty. Regardless of the methods that
we use there will always be an element of uncertainty until the forecast horizon has come to pass.

2. There will always be blind spots in forecasts. We cannot, for example, forecast completely new
technologies for which there are no existing paradigms.

3. Providing forecasts to policy-makers will help them formulate social policy. The new social policy, in
turn, will affect the future, thus changing the accuracy of the forecast

OPINION POLLING METHODS:

1. **EXPERTS OPINION METHOD**

Genius forecasting - This method is based on a combination of intuition, insight, and luck. Psychics and crystal ball readers are the most extreme case of genius forecasting. Their forecasts are based exclusively on intuition. Science fiction writers have sometimes described new technologies with uncanny accuracy

2. **CONSUMER 'S SURVEY METHOD**

In this method consumer„s are contacted personally to disclose their future plans so that we can able to forecast the future because they are ultimate targeters/buyers

COMPLETE ENUMERATION SURVEY

Here all the units of consumers are taken into account without any cutshorts

So here large number of consumers will be there to get the unbiased information .The main Advantage of this method is its accuracy and its main drawback is it is time consuming one.

3. **SURVEY METHOD**

Here from the total population certain number of units will be selected as sample units, then the opinion collection will be made. This methopd is less tedious and less costly than the above method.

4. **STATISTICAL METHODS**

Fitting trend line by observation

This method of estimating trend is elementary,easy and quick.It involves merely plotting of annual sales on graph and then estimating just by observation where the trend line lies

a.Trend extrapolation - These methods examine trends and cycles in historical data, and then use

mathematical techniques to extrapolate to the future.

b. Simulation methods - Simulation methods involve using analogs to model complex systems. These analogs can take on several forms.

c. Trend Analysis: Uses linear and nonlinear regression with time as the explanatory variable, it is used where pattern over time have a long-term trend. Unlike most time-series forecasting techniques, the Trend Analysis does not assume the condition of equally spaced time series.

d. Simple Moving Averages: The best-known forecasting methods is the moving averages or simply takes a certain number of past periods and add them together; then divide by the number of periods. Simple Moving Averages (MA) is effective and efficient approach provided the time series is stationary in both mean and variance. The following formula is used in finding the moving average of order n, MA(n) for a period t+1

e. Exponential Smoothing Techniques: One of the most successful forecasting methods is the exponential smoothing (ES) techniques. Moreover, it can be modified efficiently to use effectively for time series with seasonal patterns.

f. Least-Squares Method: To predict the mean y-value for a given x-value, we need a line which passes through the mean value of both x and y and which minimizes the sum of the distance between each of the points and the predictive line

g. Regression and Moving Average: When a time series is not a straight line one may use the moving average (MA) and break-up the time series into several intervals with common straight line with positive trends to achieve linearity for the whole time series.

UNIT III
PRODUCTION AND COST ANALYSIS

1.Define the Meaning of Production

The concept of production can be represented in the following manner.

The term "Production" means transformation of physical "Inputs" into physical "Outputs".

The term "Inputs" refers to all those things or items which are required by the firm to produce a particular product. *Four factors of production are land, labor, capital and organization***.** In addition to four factors of production, inputs also include other items like raw materials of all kinds, power, fuel, water, technology, time and services like transport and communications, warehousing, marketing, banking, shipping and Insurance etc. It also includes the ability, talents, capacities, inputs.

2.What is Production function?

The entire theory of production centre round the concept of production function. "A production Function" expresses the technological or engineering relationship between physical quantity of inputs employed and physical quantity of outputs obtained by a firm. It specifies a flow of output resulting from a flow of inputs during a specified period of time.

A production function can be represented in the form of a mathematical model or equation as Q = f (L, N, K….etc) where Q stands for quantity of output per unit of time and L N K etc are the various factor inputs like land, capital labor etc which are used in the production of output. The rate of output Q is thus, a function of the factor inputs L N K etc, employed by the firm per unit of time.

3.What is Returns to Scale?

Commonly used General Production Function: X = f (L, K, v, u) Law of Diminishing Marginal Returns Marshall stated this law as follows: "An increase in capital and labour applied in the cultivation of land causes in general a less than proportionate increase in the amount of produce raised, unless it happens to coincide with an improvement in the arts of agriculture." In the initial stages of cultivation of a given piece of land, perhaps due to under-cultivation of land, when additional units of capital and labour are invested, additional output may be more than proportionate. But after a certain extent when the land is cultivated with some more investment, the additional output will be less than proportionate under all normal circumstances, unless some improvements take place in the methods of techniques of cultivation. The law is applicable to all fields of production such as industry, mining, house construction, besides agriculture.

4.Explain laws of returns.

The relationship between the inputs and the output in the process of production is clearly explained by the Laws of Returns or the Law of Variable Proportions.This law examines the production function with only one factor variable, keeping the quantities of other factors constant. The laws of returns comprise of three phases:

a) The Law of Increasing Returns.

b) The Law of Constant Returns.

c) The Law of Diminishing Returns.

5.Write any three benefite of Production optimization

1. An accurate forecast of future cash flows and associated risks
2. Cost savings by avoiding unnecessary attention to areas that are non-critical, and improved focus on areas of higher value
3. Discovery of enhancement opportunities during the conceptual and design phase, rather than later in the project's life-cycle, when the cost of change is considerably higher

6.What is Isoquant?

In economics, an isoquant (derived from quantity and the Greek word iso, meaning equal) is a contour line drawn through the set of points at which the same quantity of output is produced while changing the quantities of two or more inputs. While an indifference curve mapping helps to solve the utility-maximizing problem of consumers, the isoquant mapping deals with the cost-minimization problem of producers.

7.What is iso costs?

The prime concern of a firm is to workout the cheapest factor combinations to produce a given quantity of output. There are a large number of alternative combinations of factor inputs which can produce a given quantity of output for a given amount of investment. Hence, a producer has to select the most economical combination out of them. Isoproduct curve is a technique developed in recent years to show the equilibrium of a producer with two variable factor inputs. It is a parallel concept to the indifference curve in the theory of consumption.

8.Definition of iso quant.

The term "Iso –Quant" has been derived from 'Iso' meaning equal and 'Quant' meaning quantity. Hence, Iso – Quant is also called as Equal Product Curve or Product Indifference Curve or Constant Product Curve. An Iso – product curve represents all the possible combinations of two factor inputs which are capable of producing the same level of output. It may be defined as – " a curve which shows the different combinations of the two inputs producing the same level of output ."

Each Iso – Quant curve represents only one particular level of output. If there are different Iso–Quant curves, they represent different levels of output. Any point on an Iso–Quant curve represents same level of output. Since each point indicates equal level of output, the producer becomes indifferent with respect to any one of the combinations.

9.What are Isoquants?

ISO – means equal, QUANT – means quantity.

- Isoquant literally means Equal Quantity.
- Isoquant curve can also be called Isoproduct curve.

This curve represents equal quantity of output produced using various combinations of inputs. An Isoquant is the locus of all the combinations of two factors of production that yield the same level of output.

10.What do you Mean by cost concept?

Cost is analyzed from the producer's point of view. Cost estimates are made in terms of money.

Cost calculations are indispensable for management decisions.

In the production process, a producer employs different factor inputs. These factor inputs are to be compensated by the producer for the services in the production of a commodity. The compensation is the cost. The value of inputs required in the production of a commodity determines its cost of output.

Cost of production refers to the total money expenses (Both explicit and implicit) incurred by the producer in the process of transforming inputs into outputs.

In short, it refers total money expenses incurred to produce a particular quantity of output by the producer. The knowledge of various concepts of costs, cost output relationship etc. occupies a prominent place in cost analysis.

11.What are Determinants of Costs?

Cost behavior is the result of many factors and forces. But it is very difficult to determine in general the factors influencing the cost as they widely differ from firm to firm and even industry to industry. However, economists have given some factors considering them as general determinants of costs. They have enough importance in modern business set up and decision making process.

12.Explain Marginal Cost (MC)

Marginal cost may be defined as the net addition to the total cost as one more unit of output is produced. In other words, it implies additional cost incurred to produce an additional unit.

PART B

1.RETURNS TO SCALE (PRODUCTION FUNCTION)

- **Increasing Returns to Scale**

  When our inputs are increased by *m*, our output increases by more than *m*.

- **Constant Returns to Scale**

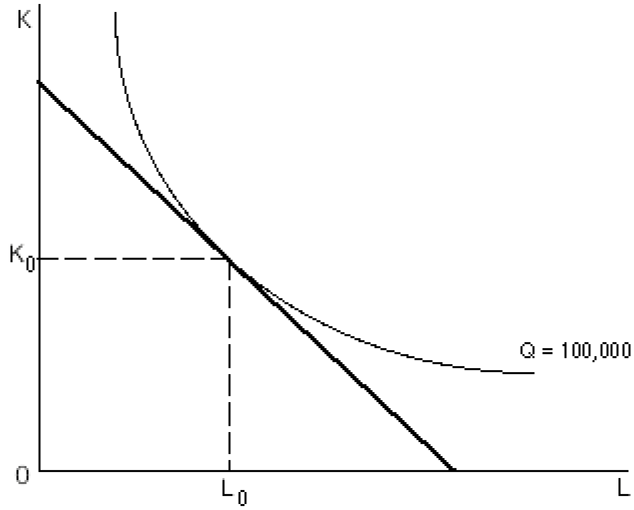
  When our inputs are increased by *m*, our output increases by exactly *m*.

- **Decreasing Returns to Scale**

When our inputs are increased by *m*, our output increases by less than *m*.

2.ISOQUANTS:

An **isoquant** (derived from quantity and the Greek word iso, meaning equal) is a contour line drawn through the set of points at which the same quantity of output is produced while changing the quantities of two or more inputs.[1][2] While an indifference curvemapping helps to solve the utility-maximizing problem of consumers, the isoquant mapping deals with the cost-minimization problem of producers. Isoquants are typically drawn along with isocost curves in capital-labor graphs, showing the technological tradeoff between capital and labor in the production function, and the decreasing marginal returns of both inputs. Adding one input while holding the other constant eventually leads to decreasing marginal output, and this is reflected in the shape of the isoquant. A family of isoquants can be represented by an **isoquant map**, a graph combining a number of isoquants, each representing a different quantity of output. Isoquants are also called equal product curves.



3. **AVERAGE COST CURVE:**
Types of Cost (Cost Concepts)

Actual Cost
Actual cost is defined as the cost or expenditure which a firm incurs for producing or acquiring a good or service. The actual costs or expenditures are recorded in the books of accounts of a business unit. Actual costs are also called as "Outlay Costs" or "Absolute Costs" or "Acquisition Costs".
Examples: Cost of raw materials, Wage Bill etc.

(B) Opportunity Cost
Opportunity cost is concerned with the cost of forgone opportunities/alternatives. In other words, it is the return from the second best use of the firms resources which the firms forgoes in order to avail of the return from the best use of the resources. It can also be said as the comparison between the policy that was chosen and the policy that was rejected. The concept of opportunity cost focuses on the net revenue that could be generated in the next best use of a scare input. Opportunity cost is also called as "Alternative Cost".

If a firm owns a land, there is no cost of using the land (ie., the rent) in the firms account. But the firm has an opportunity cost of using the land, which is equal to the rent forgone by not letting the land out on rent.

(C) Sunk Cost
Sunk costs are those do not alter by varying the nature or level of business activity. Sunk costs are generally not taken into consideration in decision - making as they do not vary with the changes in the future. Sunk costs are a part of the outlay/actual costs. Sunk costs are also called as "Non-Avoidable costs" or "Inescapable costs".
Examples: All the past costs are considered as sunk costs. The best example is amortization of past expenses, like depreciation.

(D) Incremental Cost
Incremental costs are addition to costs resulting from a change in the nature of level of business activity. As the costs can be avoided by not bringing any variation in the activity in the activity, they are also called as "Avoidable Costs" or "Escapable Costs". More ever incremental costs resulting from a contemplated change is the Future, they are also called as "Differential Costs"
Example: Change in distribution channels adding or deleting a product in the product line.

(E) Explicit Cost
Explicit costs are those expenses/expenditures that are actually paid by the firm. These costs are recorded in the books of accounts. Explicit costs are important for calculating the profit and loss accounts and guide in economic decision-making. Explicit costs are also called as "Paid out costs"
Example: Interest payment on borrowed funds, rent payment, wages, utility expenses etc.

(F) Implicit Cost
Implicit costs are a part of opportunity cost. They are the theoretical costs ie., they are not recognised by the accounting system and are not recorded in the books of accounts but are very important in certain decisions. They are also called as the earnings of those employed resources which belong to the owner himself. Implicit costs are also called as "Imputed costs".
Examples: Rent on idle land, depreciation on dully depreciated property still in use, interest on equity capital etc.

(G) Book Cost
Book costs are those business costs which don't involve any cash payments but a provision is made in the books of accounts in order to include them in the profit and loss account and take tax advantages, like provision for depreciation and for unpaid amount of the interest on the owners capital.

(H) Out Of Pocket Costs
Out of pocket costs are those costs are expenses which are current payments to the outsiders of the firm. All the explicit costs fall into the category of out of pocket costs.
Examples: Rent Payed, wages, salaries, interest etc

(I) Accounting Costs
Accounting costs are the actual or outlay costs that point out the amount of expenditure that has already been incurred on a particular process or on production as such accounting costs facilitate for managing the taxation need and profitability of the firm.
Examples: All Sunk costs are accounting costs

(J) Economic Costs
Economic costs are related to future. They play a vital role in business decisions as the costs considered in decision - making are usually future costs. They have the nature similar to that of incremental, imputed explicit and opportunity costs.

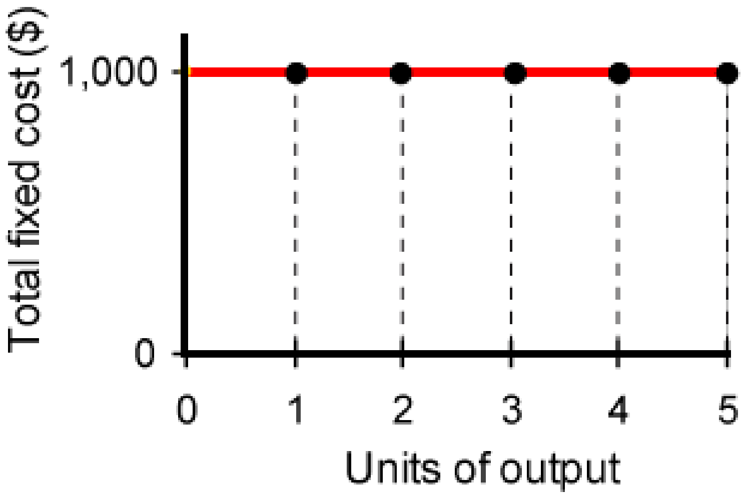
(K) Direct Cost
Direct costs are those which have direct relationship with a unit of operation like manufacturing a product, organizing a process or an activity etc. In other words, direct costs are those which are directly and definitely identifiable. The nature of the direct costs are related with a particular product/process, they vary with variations in them. Therefore all direct costs are variable in nature. It is also called as "Traceable Costs"
Examples: In operating railway services, the costs of wagons, coaches and engines are direct costs.

(L) Indirect Costs
Indirect costs are those which cannot be easily and definitely identifiable in relation to a plant, a product, a process or a department. Like the direct costs indirect costs, do not vary ie., they may or may not be variable in nature. However, the nature of indirect costs depend upon the costing under

consideration. Indirect costs are both the fixed and the variable type as they may or may not vary as a result of the proposed changes in the production process etc. Indirect costs are also called as Non-traceable costs.
Example: The cost of factory building, the track of a railway system etc., are fixed indirect costs and the costs of machinery, labour etc.

4.COST-OUTPUT DECISION

- The *short run* is a period of time for which two conditions hold:
  1. The firm is operating under a fixed scale (fixed factor) of production, and
  2. Firms can neither enter nor exit an industry.
- *Fixed cost* is any cost that does not depend on the firm's level of output. These costs are incurred even if the firm is producing nothing. There are no fixed costs in the long run.
- *Variable cost* is a cost that depends on the level of production chosen.
- *Average fixed cost (AFC)* is the total fixed cost (*TFC*) divided by the number of units of output (*q*):



5.MANAGERIAL USES OF PRODUCTION FUNCTION:
(i) It suits to the nature of all industries.

(ii) It is convenient in international and inter-industry comparisons.

(iii) It is the most commonly used function in the field of econometrics.

(iv) It can be fitted to time series analysis and cross section analysis.

(v) The function can be generalised in the case of 'n' factors of production.

(vi) The unknown parameters a and p in the function can be easily computed.

(vii) It becomes linear function in logarithm.

(viii) It is more popular in empirical research.

UNIT – IV
PRICING

1. What is Pricing?

Pricing is the process of determining what a company will receive in exchange for its products. Pricing factors are manufacturing cost, market place, competition, market condition, and quality of product. Pricing is also a key variable in microeconomic price allocation theory.

Pricing is a fundamental aspect of financial modeling and is one of the four Ps of the marketing mix. The other three aspects are product, promotion, and place. Price is the only revenue generating element amongst the four Ps, the rest being cost centers.

2. What are pricing methods?

The use of a specific type of information on prices to represent the evolution of price in price index compilation. The specific type of information specifies the method.

As this sounds quite abstract an example is informative: the unit value method is the use of income divided by quantities sold as price information in price index calculation.

The ideal pricing method is ***transaction pricing*,** which is the use of actually paid prices of individual transactions that are repeated in every survey period. Price index theory is built on the assumption that this ideal pricing method is used or sufficiently approximated. However pricing methods in practice, and especially in that of SPPI, stray from this ideal. The closer a pricing method is to transaction pricing the better. Therefore, a pricing method can be rated according to how it compares to transaction pricing.

3. What is Line Pricing?

Line Pricing is the use of a limited number of prices for all product offerings of a vendor. This is a tradition started in the old five and dime stores in which everything cost either 5 or 10 cents. Its underlying rationale is that these amounts are seen as suitable price points for a whole range of products by prospective customers. It has the advantage of ease of administering, but the disadvantage of inflexibility, particularly in times of inflation or unstable prices.

4. Explain Promotional pricing

Promotional pricing refers to an instance where pricing is the key element of the marketing mix.

5. What is Premium pricing?

Premium pricing (also called prestige pricing) is the strategy of consistently pricing at, or near, the high end of the possible price range to help attract status-conscious consumers. The high pricing of premium product is used to enhance and reinforce a product's luxury image.

6. Explain Skimming

"Skim the cream" pricing involves selling at a high price to those who are willing to pay before aiming at more price-sensitive consumers.

This expression comes from the farming practice of milking cows - the cream rises to the top and you skim it off.

The advantage of using a Skimming price policy is that you can theoretically get the maximum profit from each level of customer.

7. Explain Skimming Pricing

"A Skimming policy is more attractive if demand is inelastic" says the Shapiro text

- remember inelastic means there are no close substitutes
- products that people will pay a high price for because there is nothing else they can buy the is close to the item

8. What is Penetration Pricing?

- to make it too intimidating for competition to follow,
- or to make sure you enter the market in a competitive environment
- or as part of a brand building strategy

9. Perfect competition

It is a theoretical market structure that features unlimited contestability (or no barriers to entry), an unlimited number of producers and consumers, and a perfectly elastic demand curve.

The imperfectly competitive structure is quite identical to the realistic market conditions where some monopolistic competitors, monopolists, oligopolists, and duopolists exist and dominate the market conditions. The elements of Market Structure include the number and size distribution of firms, entry conditions, and the extent of differentiation.

In other words, competition can align the seller's interests with the buyer's interests and can cause the seller to reveal his true costs and other private information. In the absence of perfect competition, three basic approaches can be adopted to deal with problems related to the control of market power and an asymmetry between the government and the operator with respect to objectives and information:

a) subjecting the operator to competitive pressures,

b) gathering information on the operator and the market, and

c) applying incentive regulation.

10. What is Price discrimination?

This practice is often highly controversial in terms of its impact on both consumers and rivals. This chapter aims to explain some of the main economic motives for price discrimination, and to outline when this practice will have an adverse or beneficial effect on consumers, rivals and on total welfare.

Price discrimination or price differentiation exists when sales of identical goods or services are transacted at different prices from the same provider.

PART B

1.DETERMINANTS OF PRICE

- **survival:**
- **return on investment:**
- **market stabilisation:**
- **maintenance and improvement of market position:**
- **meeting or following competition:**
- **pricing to reflect product differentiation:**
- **preventing new entry:**

2.PRICING OBJECTIVES

- Maximize long-run profit.
- Maximize short-run profit.
- Increase sales volume (quantity)
- Increase monetary sales.
- Increase market share.
- Obtain a target rate of return on investment (roi)
- Obtain a target rate of return on sales.

3.MARKET STRUCTURES

market structure is best defined as the organisational and other characteristics of a market. we focus on those characteristics which affect the nature of competition and pricing – but it is important not to place too much emphasis simply on the market share of the existing firms in an industry.

Comparing Market Types

Type of Market	Number of Producers	Kind of Competition	Barriers to Entry	Another Name for Firms	Special Traits
Monopoly	One	None	No entry possible	Price-setter	Only one firm
Oligopoly	A few	Primarily non-price competition	Medium barriers (difficult entry)	N/A	Firms can collude and behave as a monopolist
Monopolistic Competition	Many	Non-price competition; price competition	Low barriers (easy entry)	Price-maker	Product differentiation and branding
Perfect Competition	A great many	Price competition	No barriers (free entry)	Price-taker	Perfectly elastic demand

pricing under different market structures.

4.PRICING METHODS

- **cost based pricing**
- **based on firm's objective**
- **competition based pricing**
- **product life cycle pricing**

- **cyclical pricing**
- **multiproduct pricing**
- **administered pricing**

. **5.PRICING DISCRIMINATION**

price discrimination is the practice of charging a different price for the same good or service. there are three types of price discrimination – first-degree, second-degree, and third-degree price discrimination.

1.FIRST DEGREE

2.SECOND DEGREE

Second-degree price discrimination means charging a different price for different quantities, such as quantity discounts for bulk purchases.

3.THIRD DEGREE

Third-degree price discrimination means charging a different price to different consumer groups. for example, rail and tube travellers can be subdivided into commuter and casual travellers, and cinema goers can be subdivide into adults and children. splitting the market into peak and off peak use is very common and occurs with gas, electricity, and telephone supply, as well as gym membership and parking charges. third-degree discrimination is the commonest type.

UNIT V and VI

FINANCIAL ACCOUNTING and CAPITAL BUDGETING

1. **What is Mean by accounting?**

   Accounting is the recording, classifying and summarizing of business transaction in terms of cash, the preparation of financial report, the analysis and interpretation of these reports for the information and guidance of management.

2. **Explain the purpose of accounting.**

   The main purpose of accounting is to determine profit or loss during a specified time, to show financial condition of the business on a particular date and to have control over the firm's property. Such accounting records are necessary to be maintained to calculate the income of the business and communicate the information so that it may be used by managers, owners and other parties.

3. **Define accounting.**

   The American Institute of Certified Public Accounts has defined the financial accounting as," the art of recording, classifying and summarizing in a significant manner in terms of cash transactions and events".

American Accounting Association defines accounting as," the process of identifying, measuring, and communicating economic information to permit informed judgements and decisions by users of the information".

In simple term financial accounting refers to, "Art of recording business transaction".

4. Write any two objectives of Accounting

1) To ascertain whether the business operations have been profitable or not. Accounting helps us to know whether a business has secured profit or loss during the accounting period. It will give us an idea of efficiency of the business. The following steps are to be used to determine the position of the business.
    - Trading Account
    - Profit and loss Accounts
    - Income statement
    - Balance sheet
2) To determine the financial position of the business. The financial position of the business is indicated by its assets on a given period and its liabilities on the period. Excess assets over liabilities represent the capital and is indicative of the financial soundness of the business.

5. Explain any four functions of financial accounting

- Book keeping function
- Classification of information
- Preparation of financial accounting
- Segregating financial transactions

6. What is Balance sheet?

In simple term Balance sheet is a statement, which shows the assets and liabilities of the firm. Balance sheet presents the financial position of a firm as revealed by the accounting records. IT explains the assets owned by concern and the sources of funds used in the acquisition of those assets.

- Balance sheet shows the financial position
- Balance sheet is easily readable
- Possible view of the detailed information and understood
- Prepared during the current period of accounting year.

Balance sheet may be called a 'statement of equality' in which equality is established by representing values of assets on one side and value of liabilities and owners' funds on the other side.

7. Definition of accounting.

According to cooper," Balance sheet is a classified summary of the ledger balances remaining after closing all revenue items into the profit and loss account".

Francis defines,” Balance sheet is a screen picture of the financial position of a going business concern at a certain moment”.

8. Write any four Accounting Concept.

Accounting concepts are used to recording accounts transaction. The following is a generally accepted list of accounting concept.

i) Business entity concept

ii) Going concern concept

iii) Money measurement concept

iv) Accounting period concept

9. What is Accounting convention.

The word convention refers to traditions or customs. The accounting convention is describes the customs or tradition as a guide to the preparation of accounting statements. Modern business world has accepted the utility of these accounting conventions in preparing financial statements more realistic, reliable, and useful to all concerned parties. Below the popular method of accounting conventions;

i) Convention of consistency

ii) Convention of Full disclosure

iii) Convention of materiality

iv) Convention of conservatism

10. What is Profit and loss account?

Profit and loss account is prepared to ascertain the net profit or net loss of the business concern for an accounting period.

Definition: According to prof. Carter,” Profit and loss account is an account into which all profit and losses are collected in order to determine the excess of income over the losses or vice versa.”.

11. What is Ratio analysis?

In simple term ratio is numerical relationship between two numbers. It is expressed when one number is divided by another.

e.g. If 400 are divided by 1000, the ratio can be expressed as 0.4 or 2:5 or 40%.

12. Write any four Merits of Ratio Analysis.

- Useful in financial position analysis
- Useful in simplifying accounting figures
- Useful in assessing the operational efficiency
- Useful in forecasting purposes

13. What are the Classification of ratios?

- By statements
- By users
- Classification by relative importance
- Classification of ratios by purpose

14. What is Profitability Ratio?

Profit making is the main objective of business. The objective of every business concern is to earn more profit in the absolute terms. Profitability refers to ability to make more profit from optimum utilization of resources by a business concern. Profitability involves study of sales, cost of goods sold, analysis of gross margin on sales, analysis of operating expenses, operating profit and analysis of profit in relation to capital employed. Profits are the goals the of every business firm. They indicate a firm's progress. They are the criterion to judge the effectiveness of management.

15. What are Turnover ratio?

i) Inventory turnover or Stock turnover ratio

ii) Debtors' turnover ratio

iii) Creditors' turnover ratio

iv) Working capital

v) Working capital turnover ratio

vi) Fixed assets turnover ratio

vii) Capital turnover ratio

16. What is Solvency ratio?

Solvency ratios express the financial position of business. Financial ratios are calculated on the basis of items of the balance sheet. Therefore, solvency ratios are also called balance sheet ratios.

17. What is Cash flow analysis?

'Cash flow' includes cash inflows and out flows- cash receipts and cash payments- during a period. Movements of cash are of vital importance to the management. The short term liquidity and short term-solvency positions of a firm are dependent on its cash flows.

The term 'cash' in the context of cash flow analysis includes the 'cash balance' and the 'bank balance' of business unit. Cash flow analysis can reveal the causes for even highly profitable firm experiencing acute cash shortages.

18. Definitions of cash flow statement

- Cash flows are inflows and outflows of cash and cash equivalents.
- Cash equivalents are short term, high liquid investments that are readily convertible into known amounts of cash and which are subject an insignificant risk of changes in value.

- Cash compromise cash on hand and demand deposits with bank.
- Investing activities are the acquisition and disposal of long term assets and other investment not including in cash equivalent.

19. List out any five Benefits of cash flow statements

- Historical analysis as guide to forecasting
- Effective cash management
- Formulation of financial policies
- Preparation of cash budgets
- Short term financial decision

20. What are Sources of cash?

- Cash from operations
- External sources

21. What is Cash from operation?

Cash from operations refers to a business generates cash inflow through its normal business operations which is usually the most important and routine source of cash. It is the internal source for cash.

22. What is Mean by funds flow statement?

The term funds refer to money or cash. International accounting standards no. 7 explains “Statement of changes in financial position “also recognizes the absence of single, generally accepted, definition of the term. According to the standard, the word fund refers to cash, to cash and cash equivalents, or to working capital. Of those, the last definition of the term is by far the most common definition of funds.

In the broader sense it includes all resources used in the business whether in the form of men, material, money, machinery, methods etc.

23. Define Funds flow statement

The word funds flow statement is a financial statement which reveals the methods by which the business has been financed and how it has used its funds between the opening and closing balance sheet dates.

According to Anthony, “The funds flow statement describes the sources from which additional funds were derived and the uses to which these funds were put”.

The funds flow statement is denoted by various titles, such as, statement of source and application of funds, statement of changes in working capital, got and gone statement, and statement of resource provided and applied.

24. What are the objectives of funds flow statement?

- To help to understand the changes in assets and assets sources which are not readily evidence in the income statement or the financial position statement.

- To inform as to how the loans to the business have been used
- To point out the financial strengths and weaknesses of the business
- Indication of financial results
- Emphasis on significant changes

25. Explain Funds from operation

A fund from operation is the only internal source of funds. All the 'non funds items' or non operating expenses, non operating incomes should be adjusted in the net profit to ascertain funds from operations. This can be done by preparing an adjusted profit and loss account or by preparing a statement of funds from operations.

- Non trading incomes
- Non trading gains

26. Define financial statement?

According to Hampton J.J." the statement disclosing status of investment is known as balance sheet and the statement showing the result is called as profit and loss account". Thus the word financial statements have been widely used to represent two statement prepared by accountants at the specific time period. They are;

- Profit and loss account or income statement
- Balance sheet or statement of financial position
- A surplus statement or retained earnings statement

27. Define capital budgeting

" Capital budgeting is long term planning for making and financing proposed outlays"-

Charles T. Homgreen.

"Capital budgeting as acquiring inputs with long – run return".- **Richard and Greenlaw**,

According to Lynch, "capital budgeting consists in planning development of available capital for the purpose of maximizing the long – term profitability of the concern".

28. Why capital budgeting needed.

- Analyse the proposal for expansion or creating additional capacities
- To decide the replacement of permanent assets such as building and equipments
- To make financial analysis of various proposals regarding capital investments so as to choose the best out of many alternative proposals
- Whether or not funds should be invested in long – term projects such as setting of industry, purchase of plant and machinery, etc.

29. What is Pay – back period method?

Pay – back period is also called ‘pay- out’ or ‘pay – off period’. Pay – back period is the time required in which a project ‘pays for itself’ through surplus cash flows. It is the period within which investment in fixed assets or projects can be recovered.

In simple word, pay – back period is the period of time for the cost of projects to be recovered from the additional cash flows of the project itself.

PART B

1.What art the key Functions of financial statements?

I) FOR MANAGEMENT: Now a day’s financial statements are used to management for decision making. Reliable information and effectiveness are extracted by management from financial statements.

Merits

- Effective utilization of capital employed
- Efficient use of assets

II) FOR FINANCIERS: Financial statements are having vital role for the financiers and lenders. Financial statements help the bankers and lenders to decide whether to extend loans to the customers.

Merits

- Financial position
- Solvency

III) FOR CREDITORS: Trade creditor is another class for whom financial statements are important. Trade credit implies extending facilities of deferred payments for credit purchase by seller or buyer.

Merits

- Solvency ratio

IV) FOR INVESTORS: Financial statements guide the present and prospective investors. It helps to assess the earning capacity, growth potential and efficiency of management.

Merits

- Long –term solvency
- Interest coverage

2.Formats of Balance Sheet, Profit and Loss Account, Cash Flow Statement, Fund Flow Statement

3.Calculation of risk in investment using Average Rate of Return method, Net Present Value method, Interna Rate of Return method, Payback Period method

1. Payback period:

The payback (or payout) period is one of the most popular and widely recognized traditional methods of evaluating investment proposals, it is defined as the number of years required to recover the original cash outlay invested in a project, if the project generates constant annual cash inflows, the payback period can be computed dividing cash outlay by the annual cash inflow.

Payback period = Cash outlay (investment) / Annual cash inflow = C / A

Advantages:

1. A company can have more favourable short-run effects on earnings per share by setting up a shorter payback period.

2. The riskiness of the project can be tackled by having a shorter payback period as it may ensure guarantee against loss.

3. As the emphasis in pay back is on the early recovery of investment, it gives an insight to the liquidity of the project.

Limitations:

1. It fails to take account of the cash inflows earned after the payback period.

2. It is not an appropriate method of measuring the profitability of an investment project, as it does not consider the entire cash inflows yielded by the project.

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

4. Administrative difficulties may be faced in determining the maximum acceptable payback period.

2. Accounting Rate of Return method:

The Accounting rate of return (ARR) method uses accounting information, as revealed by financial statements, to measure the profit abilities of the investment proposals. The accounting rate of return is found out by dividing the average income after taxes by the average investment.

ARR= Average income/Average Investment

Advantages:

1. It is very simple to understand and use.

2. It can be readily calculated using the accounting data.

3. It uses the entire stream of incomes in calculating the accounting rate.

Limitations:

1. It uses accounting, profits, not cash flows in appraising the projects.

2. It ignores the time value of money; profits occurring in different periods are valued equally.

3. It does not consider the lengths of projects lives.

4. It does not allow for the fact that the profit can be reinvested.

3. Net present value method:

The net present value (NPV) method is a process of calculating the present value of cash flows (inflows and outflows) of an investment proposal, using the cost of capital as the appropriate discounting rate, and finding out the net profit value, by subtracting the present value of cash outflows from the present value of cash inflows.

The equation for the net present value, assuming that all cash outflows are made in the initial year (tg), will be:

$$NPV = \left[\frac{A_1}{(1+k)^1} + \frac{A_2}{(1+k)^2} + \frac{A_3}{(1+k)^3} + \dots\dots\dots + \frac{A_n}{(1+k)^n}\right] - C$$

$$= \sum \frac{A_t}{(1+k)^t} - C$$

$$= t = 1$$

Where A1, A2…. represent cash inflows, K is the firm’s cost of capital, C is the cost of the investment proposal and n is the expected life of the proposal. It should be noted that the cost of capital, K, is assumed to be known, otherwise the net present, value cannot be known.

Advantages:

1. It recognizes the time value of money

2. It considers all cash flows over the entire life of the project in its calculations.

3. It is consistent with the objective of maximizing the welfare of the owners.

Limitations:

1. It is difficult to use

2. It presupposes that the discount rate which is usually the firm’s cost of capital is known. But in practice, to understand cost of capital is quite a difficult concept.

3. It may not give satisfactory answer when the projects being compared involve different amounts of investment.

4. Internal Rate of Return Method:

The internal rate of return (IRR) equates the present value cash inflows with the present value of cash outflows of an investment. It is called internal rate because it depends solely on the outlay and proceeds associated with the project and not any rate determined outside the investment, it can be determined by solving the following equation:

$$C = \frac{A_1}{(1+r)^1} + \frac{A_2}{(1+r)^2} + \frac{A_3}{(1+r)^3} + \ldots\ldots + \frac{A_n}{(1+r)^n}$$

$$C = \sum_{t=1}^{n} \frac{A_t}{(1+r)^t} \neq C$$

$$0 = \sum_{t=1}^{n} \frac{A_t}{(1+r)^t} - C$$

Advantages:

1. Like the NPV method, it considers the time value of money.

2. It considers cash flows over the entire life of the project.

3. It satisfies the users in terms of the rate of return on capital.

4. Unlike the NPV method, the calculation of the cost of capital is not a precondition.

5. It is compatible with the firm's maximising owners' welfare.

Limitations:

1. It involves complicated computation problems.

2. It may not give unique answer in all situations. It may yield negative rate or multiple rates under certain circumstances.

3. It implies that the intermediate cash inflows generated by the project are reinvested at the internal rate unlike at the firm's cost of capital under NPV method. The latter assumption seems to be more appropriate.

5. Profitability index:

It is the ratio of the present value of future cash benefits, at the required rate of return to the initial cash outflow of the investment. It may be gross or net, net being simply gross minus one. The formula to calculate profitability index (PI) or benefit cost (BC) ratio is as follows.

PI = PV cash inflows/Initial cash outlay A,

$$= \frac{\sum_{t=1} \frac{A_t}{(1+k)^t}}{C}$$

1. It gives due consideration to the time value of money.

2. It requires more computation than the traditional method but less than the IRR method.

3. It can also be used to choose between mutually exclusive projects by calculating the incremental benefit cost ratio.

4.Explain the Meaning of capital budgeting

Capital budgeting is the process of making investment decision in capital expenditure. A capital expenditure may be defined as an expenditure the benefit of which are expected to be received over a period of time exceeding one year.

In simple words, capital expenditure (budgeting) incurred for acquiring or improving the fixed assets, the benefits of which are expected to be received over a number of years in future.

5.Explain Accounting rate of return (ARR)

Accounting rate of return takes into account the total earnings expected from an investment proposals over its full life time. The method is called Accounting rate of return or Average rate of return method because the concept based on profit.

Steps in ARR method

- ARR is determined separately for each of the projects
- Different projects are ranked in order of rate of earnings
- If there is no cut off rate
- Project with higher ARR is acceptable
- The cut off rate normally based on cost of capital of the firm
- Project with higher rate of return than the cut off rate are acceptable projects.

6.Explain about Net present value, What is Profitability index,What is Internal Rate of Return?

This generally considered to be the best method for evaluating the capital investment proposals. It recognizes the time value of money and that cash floes arising at different period of time differ in value and are not comparable unless their equivalent present values are found. The present value of these cash inflows and outflows are then calculated at the rate of return acceptable to the management.

The profitability index is also known as Benefit cost Ratio (B / C). It shows the relationship between P.V. of cash inflows and P.V. of cash outflows.

PI = Present value of future cash inflows / present value of future cash outflows

Accept criterion = P.I. > 1

Reject criterion = P.I. <1

The second discounted cash flow or time adjusted method for appearing capital investment decisions is the IRR method. IRR is that rate of return at which the present value of cash inflows and cash outflows are equal.

Thus, at IRR the total of discounted cash inflows equal the total of discounted cash out flows. IRR discounted the total cash flows to the level of zero.

IRR = Cash inflows / Cash out flows

7.Explain Capital Rationing

Capital rationing refers to a situation where a firm is not in a position to invest in all profitable protects which are feasible due to the constraints on availability of funds.

According to ***I.M.pandy***, “in capital rationing, the management has not simply to determine the profitable investment opportunities, but it has to decide to obtain that combination of the profitable projects which yields highest NPV within the available funds.