13BECC605 ENGINEERING ECONOMICS AND FINANCIAL MANAGEMENT

INTENDED OUTCOMES:

- **To know the fundamentals of cost analysis and economics.**
- **To learn about the basics of economics and cost analysis related to engineering so as to take economically sound decisions.**
- **To make the students to understand capital market, break even point analysis and depreciation**

UNIT- I FUNDAMENTALS OF ENGINEERING ECONOMICS

Introduction to Engineering Economics – Definition and Scope – Significance of Engineering Economics- Demand and supply analysis-Definition – Law of Demand – Elasticity of Demand – Demand Forecasting. Supply – Law of supply – Elasticity of Supply – Market Mechanism.

UNIT- II FINANCIAL MANAGEMENT

Objectives and functions of financial management – financial statements, working capital management – factors influencing working capital requirements – estimation of working capital - Cost analysis -Basic cost concepts – FC, VC, TC, MC – Cost output in the short and long run.

UNIT- III CAPITAL MARKET

Stock Exchanges – Functions – Listing of Companies – Role of SEBI – Index Numbers – Capital Market Reforms. Money and banking - Money – Functions – Value of Money – Inflation and deflation – Commercial Bank and its functions – Central bank and its functions.

UNIT- IV NEW ECONOMIC ENVIRONMENT

Economic systems, Economic Liberalization –Privatization – Globalization. An overview of International Trade – World Trade Organization – Intellectual Property Rights. Capital budgeting - Need for Capital Budgeting – Project Appraisal Methods - Payback Period – ARR – Time Value of Money – DCF Techniques – Feasibility Report.

UNIT- V DEPRECIATION AND BREAK EVEN ANALYSIS

Meaning – Causes for Depreciation – Methods of Computing Depreciation.Meaning – Break Even Chart – Simple Problems – Managerial uses of BEA.

TEXT BOOKS:

S.NO	Author(s) Name	Title of the book	Publisher	Year of publication

1	Ramachandra Aryasri .A, and V. V.Ramana Murthy	Engineering Economics & Financial Accounting	Tata McGraw Hill,–,New Delhi	2007
2	Varshney R. L., and K.L Maheshwari	Managerial Economics	Sultan Chand & Sons, New Delhi	2001

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1	Samuelson and Nordhaus	Economics	Tata McGraw Hill, New Delhi	2002
2	Prasanna Chandra	Fundamentals of Financial Management	Tata McGraw Hill, New Delhi.	2007

WEBSITES:

http://www.handbook.unsw.edu.au/postgraduate/courses/.../CVEN9701.ht...
http://www.rejinpaul.com/2011/11/eefa-engineering-economics-and.html
http://www.eogogics.com › Descriptions of Publications

KARPAGAM UNIVERSITY
Faculty of Engineering
Department of Computer Science and Engineering

Lecture Plan

Faculty Name : M.Vanitha **Subject Code: 13BECC605**
Subject Name : ENGINEERING ECONOMICS AND FINANCIAL MANAGEMENT **Class : IV-BE-CSE**

S.NO	Topics	Problem solving (Yes/No)	Text / Chapter
UNIT-I			
1.	Introduction to Economics-	No	T1
2.	Flow in an economy, Law of supply and demand,	NO	
3.	Concept of Engineering Economics	NO	
4.	Engineering efficiency, Economic efficiency,	**Yes**	
5.	Scope of engineering economics- Element of costs, Marginal cost, Marginal Revenue, Sunk cost, Opportunity cost,	**Yes**	
6.	Break-even analysis	**Yes**	
7.	V ratio, Elementary economic Analysis	No	
8.	Material selection for product Design selection for a product, Process planning.	NO	
UNIT-II			
9.	Make or buy decision,		T1
10.	Value engineering – Function, aims, and Value engineering procedure.	NO	
11.	Interest formulae and their applications	NO	
12.	–Time value of money, Single payment compound amount factor, Single payment present worth		

13.	Equal payment series sinking fund factor,	NO	
14.	Equal payment series payment Present worth factor-	NO	
15.	Equal payment series capital recovery factor-	NO	
16.	Uniform gradient series annual equivalent factor,	NO	
17.	Effective interest rate,	**Yes**	
18.	Examples in all the methods.	**Yes**	
UNIT-III			
19.	Methods of comparison of alternatives – present worth method (Revenue dominated cash flow diagram),	NO	T1

20.	Future worth method (Revenue dominated cash flow diagram, cost dominated cash flow diagram),	NO	
21.	Annual equivalent method (Revenue dominated	NO	
22.	cash flow diagram,	NO	
23.	cost dominated cash flow diagram),		
24.	rate of return method,	NO	
25.	Examples in Annual equivalent method.	**Yes**	
26.	Examples in all the cash flow diagram,	**Yes**	
27.	Examples in rate of return method,	**Yes**	
UNIT-IV			
28	Replacement and Maintenance analysis	NO	T1
29	Types of maintenance,	NO	
30	Types of replacement problem,	NO	
31	Determination of economic life of an asset,	NO	
32	Replacement of an asset with a new asset	NO	
33	capital recovery with return	NO	
34	Concept of challenger	NO	
35	Defender,	NO	
36	Simple probabilistic model for items which fail completely.	yes	
UNIT-V			
37	Depreciation- Introduction,		T1
38	Straight line method of depreciation, and determination of economic life of asset.		
39	declining balance method of depreciation		
40	-Sum of the years digits method of depreciation,		
41	sinking fund method of depreciation/ Annuity method of depreciation,		
42	service output method of depreciation-		
43	Evaluation of public alternatives- introduction, Examples, Inflation adjusted decisions –		
44	procedure to adjust inflation,		
45	Examples on comparison of alternatives		

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http://www.handbook.unsw.edu.au/postgraduate/courses/.../CVEN9701.ht...
http://www.rejinpaul.com/2011/11/eefa-engineering-economics-and.html
http://www.eogogics.com › Descriptions of Publications

LECTURE NOTES

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	1.2 Nature and scope of managerial economics	
	1.3 Relationship with other disciplines	
	1.4 Firms and its Types	
	1.5 Objectives and goals	
	1.6 Managerial decisions and its analysis	
2	DEMAND AND SUPPLY ANALYSIS	
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	Types of demand	
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	Demand elasticity	
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	Cost Concepts	
	Cost function&Determinants of cost	
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	Short run and Long run cost curves	
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	Pricing under different objectives	
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	Pricing methods in practice	
5	FINANCIAL ACCOUNTING	
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	Profit & Loss Statement and related concepts	
	Problems(balance sheet)	
	Financial Ratio Analysis	
	Cash flow analysis	
	Funds flow analysis	
	Comparative financial statements(problems)	
6	CAPITAL BUDGETING	
	Investments	
	Risks and return evaluation of investment decision	
	Average rate of return	
	Payback Period	
	Payback Period(problems)	
	Analysis the capital budgeting techniques	

ENGINEERING ECONOMICS & FINANCIAL ACCOUNTING

UNIT-I

INTRODUCTION

Managerial Economics – Relationship with other disciplines – Firms: - Types, Objective and Goals – Managerial Decisions – Decision Analysis

Managerial economics (meaning and nature)

Managerial economics is economics applied in decision making. It is the branch of economics which serves as a link between abstract theory and managerial practice.

It is based on the economic analysis for identifying problems,organizing information and evaluating alternatives.

DEFINITIONS OF MANAGERIAL ECONOMICS

―Managerial economics is the of economic modes of thought to analyse business situation

―Managerial economics is the integration of economic theory with business practice for the purpose of facilitating decision making and forwardplanning by the management.‖

NATURE OF MANAGERIAL ECONOMICS

1. It is microeconomic in character as it concentrate only on the study of the firm not on the working of the economy
2. It takes help from the macroeconomics to understand the environment in which the firmoperates‘
3. It is normative rather than positive i.e., it gives answer for the question what ought to be than what is,was.
4. It is both conceptual andmetrical.
5. It focuses mainly on the theory of the firm than ondistribution‘

6. Knowledge of managerial economics helps in making wise choices.i.e., choices among scarcity of resources.

7. It is goal oriented i.e., aims at achievement ofobjectives.

SIGNIFICANCE OF MANAGERIAL ECONOMICS

1. It helps in decisionmaking

2. Decisionmaking means a balance between simplification of analysis to be manageable and complication of factors inhand

3. It helps the manager to become an more competentbuilder

4. It helps in providing most of the concepts that are needed for the analysis of business problems,the concepts such as elasticity of demand ,fixed, variable cost, SR and LR costs, opportunity costs,NPVetc.,

5. It helps in making decisions in thefollowing.

- What should be the product mix?
- Which is the production technique?
- What is the i/p mix at least cost?
- What should be the level of output and price?
- How to take investment decisions?
- How much should the firm advertise

MANAGERIAL ECONOMICS RELATED WITH OTHER DISCIPLINES

Managerial Economics and TraditionalEconomics

Economics and Managerial economics both are facing identical problems,i.e., problem of scarcity and resource allocation. Since labour and capital are always limited it must find way for effective utilizing of these resources.

MANAGERIAL ECONOMICS AND OPERATIONS RESEARCH

Both operations research and managerial economics are concerned with taking effective decisions, managerial economics is a fundamental academic subject which seeks to understand and to analyse the problems of business decision making while OR is an activity carried out by functional specialist within the firm to help the manager to do his job of solving decision problems.

ITS MAIN CONTRIBUTION TO MANAGERIAL ECONOMICS

- **OR models like queuing,linear programming etc.., are widely used in managerial economics Model building, economic models are more general and confined to broad economic decision making**

MANAGERIAL ECONOMICS AND MATHEMATICS

Mathematics is closely related to managerial because managerial economics ,being

conceptual but also metrical.Its metrical property is used to estimate and predict the relevant economic factors for decision making and forward planning

ITS MAIN CONTRIBUTION TO MANAGERIAL ECONOMICS

Geometry, algebra and calculus

Logarithms and exponential, vectors and determinants,input-output tables etc.,

Even **OR** can be included as a part of mathematical exercise

Statistics is widely used in managerial economics. It is mainly needed for a correct judgement and decision making

ITS MAIN CONTRIBUTION TO MANAGERIAL ECONOMICS

- To handle the unforeseen circumstances the theory probability is mainlyused.

MANAGERIAL ECONOMICS AND THE THEORY OF DECISIONMAKING

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

- *Task of making Specific decisions*
- *Task of making General decisions*

Specific decisions *include*

- *Production scheduling*
- *Demand forecasting*

- *Market research*
- *Economic analysis of the industry*
- *Investment appraisal*
- *Security management appraisal*
- *Advice on trade*
- *Advice on foreign exchange management*
- *Pricing and related decisions*

General decisions *include*

- *Analysing the general economic condition of the economy*
- *Analyzing the demand for the product*
- *Analysing the general market condition of the economy*

FIRMS : TYPES, OBJECTIVES & GOALS

MEANING OFFIRM

Definition of firm

A firm is the small business unit involved in producing the profit Business (company, enterprise or firm) is a legally recognized organization designed to provide goods or services, or both, to consumers, businesses and governmental entities.[1] Businesses are predominant in capitalist economies. Most businesses are privately owned. A business is typically formed to earn profit that will increase the wealth of its owners and grow the business itself. The owners and operators of a business have as one of their main objectives the receipt or generation of a financial return in exchange for work and acceptance of risk. Notable exceptions include cooperative enterprises and state-owned enterprises. Businesses can also be formed not-for-profit or be state-owned.

Types of firms

Sole proprietorship:

A sole proprietorship is a business owned by one person. The owner may operate on his or her own or may employ others. The owner of the business has personal liability of the debts incurred by the business.

- **Partnership:**

A partnership is a form of business in which two or more people operate for the common goal which is often making profit. In most forms of partnerships, each partner has personal liability of the debts incurred by the business. There are three typical classifications of partnerships: general partnerships, limited partnerships, and limited liability partnerships.

- **Corporation:**

A corporation is either a limited or unlimited liability entity that has a separate legal personality from its members. A corporation can be organized for-profit or not-for-profit. A corporation is owned by multiple shareholders and is overseen by a board of directors, which hires the business's managerial staff. In addition to privately owned corporate models, there are state-owned corporatemodels.

- **Cooperative:**

Often referred to as a "co-op", a cooperative is a limited liability entity that can organize for-profit or not-for-profit. A cooperative differs from a corporation in that it has members, as opposed to shareholders, who share decision-making authority. Cooperatives are typically classified as either consumer cooperatives or worker cooperatives. Cooperatives are fundamental to the ideology of economic democracy.

GOALS OF FIRMS:

Conventional theory of firm assumes profit maximization is the sole objective of business firms. But recent researches on this issue reveal that the objectives the firms pursue are more than one. Some important objectives, other than profit maximization are:

(a) Maximization of the salesrevenue

(b) Maximization of firm‘s growthrate
(c) Maximization of Managers utilityfunction
(d) Making satisfactory rate ofProfit

(e) Long run Survival of the firm

(f) Entry-prevention andrisk-avoidance

Profit Business Objectives:

Profit means different things to different people. To an accountant ―Profit‖ means the excess of revenue over all paid out costs including both manufacturing and overhead expenses. For all practical purpose, profit or business income means profit in accounting sense plus non-allowable expenses.

Economist‘s concept of profit is of ―Pure Profit‖called _economic profit‘ or ―Just profit‖. Pure profit is areturn over and above opportunity cost, i. e. the income that a businessman might expect from the second best alternatives use of his resources.

Sales Revenue Maximisation:

The reason behind sales revenue maximisation objectives is the Dichotomy between ownership & management in large business corporations. This Dichotomy gives managers an opportunity to set their goal other than profits maximisation goal, which most-owner businessman pursue. Given the opportunity, managers choose to maximize their own utility function. The most plausible factor in manager‘s utility functions is maximisation of the sales revenue.

The factors, which explain the pursuance of this goal by the managers are following:.

First: Salary and others earnings of managers are more closely related to sales revenue than to profits Second: Banks and financial corporations look at sales revenue while financing the corporation. Third: Trend in sales revenue is a readily available indicator of the performance of the firm.

Maximisation of Firms Growth rate:

Managers maximize firm‘s balance growth rate subject to managerial & financial constrains balance growth rate defined as:

G = GD – GC

Where GD = Growth rate of demand of firm‘s product & GC= growth rate of capital supply of capital to the firm.

In simple words, A firm growth rate is balanced when demand for its product & supply of capital to the firm increase at the same time.

Maximisation of Managerial Utility function:

The manager seek to maximize their own utility function subject to the minimum level of profit. Managers

utility function is express as:

U= f(S, M, ID)

Where S = additional expenditure of the
staff M= Managerial emoluments

ID = Discretionary Investments

The utility functions which manager seek to maximize include both quantifiable variables like salary and slack earnings; non- quantifiable variables such as prestige, power, status, Job security professional excellence etc.

Long run survival & market share:

According to some economist, the primary goal of the firm is long run survival. Some other economists have suggested that attainment & retention of constant market share is an additional objective of the firm‘s. the firm may seek to maximize their profit in the long run through it is notcertain.

Entry-prevention and risk-avoidance, yet another alternative objectives of the firms suggested by some economists is to prevent entry-prevention can be:

1. Profit maximisation in the longrun

2. Securing a constant marketshare

3. Avoidance of risk caused by the unpredictable behavior of the newfirms

MANAGERIALDECISIONS:

A decision is an act requiring judgment that is translated into action.Decision making is much more comprehensive than problem solving.
The terms are interrelated, but not interchangeable.

The Significance of Decision Making

- ✓ Decision making is the one truly distinctive characteristic ofmanagers.
- ✓ Decisions made by top managers commit the total organization toward particular courses ofaction.
- ✓ Decisions made by lower levels of management implement the strategic decisions of top managers in the operating areas of theorganization.
- ✓ Decisions invariably involve organizational change and the commitment of scarceresources.

Characteristics of Managerial Decisions

- ✓ Long-range organizationalobjectives
- ✓ Best choice from among a set ofalternatives
- ✓ Decision involves organizationalchange

- ✓ Decision requires a commitment ofresources

The Managerial
Decision-Making Process
Process components are decision-making functions.
Decision-making functions are highly interrelated and interdependent.
The process is highly dynamic with several subprocesses.
The process can accommodate several concurrent Category II decisions.
Decision-Making Function No. 1
Setting Managerial Objectives:
Objectives constitute the foundation for rational decision making.
Objectives are the ends for the means of managerial decision making.
Attainment of the objective is the ultimate measure of decision success.
Decision-Making Function No. 2
Searching for Alternatives:
The limitations of time and money
The declining value of additional information
The rising cost of additional information
Abort the search in the zone of cost effectiveness
Decision-Making Function No. 3
Comparing and Evaluating Alternatives:
Alternatives result from the search.
There are usually three to five alternatives.

One alternative is to do nothing.
Alternatives are evaluated using criteria derived from the objective.
Evaluation should include an anticipation of the likely outcome for each alternative.
Evaluation should also anticipate obstacles or difficulties at the time of implementation.

Decision-Making Function No. 4
The Act of Choice:
The choice is the culmination of the process, not all of it.
The choice confronts the decision maker with discernible constraints.
The best alternative may not be readily apparent to the decision maker.
The best choice is likely to ensue from the right approach.
The choice should be the alternative most likely to result in the attainment of the objective.
Decision-Making Function No. 5
Implementing Decisions:

Decision success is a function of decision quality and decision implementation.

Areas contributing to decision success:

Observance of operating constraints
Influence of the decision maker
Involvement of decision implementers
Absence of conflict of interest

Decision-Making Function No. 6

Follow-Up and Control

Follow-up and control is essential to ensure that an implemented decision meets its objective.
Performance is measured by observing the implemented decision in relation to its standard derived from the objective.
Unacceptable variance from standard performance should elicit timely and appropriate corrective action.

DECISIONANALYSIS:

Decision Analysis (DA) is the discipline comprising the philosophy, theory, methodology, and professional practice necessary to address important decisions in a formal manner. Decision analysis includes many procedures, methods, and tools for identifying, clearly representing, and formally assessing important aspects of a decision, for prescribing a recommended course of action by applying the maximum expected utility action to the managerial decision.

The **decision analysis (DA) cycle** is the top-level procedure for carrying out a decision analysis. The traditional cycle consists of four phases:

- ✓ BasisDevelopment
- ✓ Determinisitic SensitivityAnalysis
- ✓ ProbabilisticAnalysis
- ✓ BasisAppraisal.

Decision theory in economics, psychology, philosophy, mathematics, and statistics is concerned with identifying the values, uncertainties and other issues relevant in a given decision, its rationality, and the resulting optimal decision. It is very closely related to the field of game theory.

Normative and descriptive decision theory

Most of decision theory is normative or prescriptive, *i.e.*, it is concerned with identifying the best decision to take, assuming an ideal decision maker who is fully informed, able to compute with perfect accuracy, and fully rational.

Statistical decision theory

Several statistical tools and methods are available to organize evidence, evaluate risks, and aid in decision making. The risks of Type I and type II errors can be quantified (estimated probability, cost, expected value, etc.) and rational decision making is improved.

UNIT –II

DEMAND AND SUPPLY ANALYSIS

Demand – Types of demand – Determinants of demand – Demand Function – Demand elasticity - Demand forecasting – Supply – Determinants of supply – Supply function – Supply elasticity

1.1 DEMAND

Definition of demand

The amount of a particular economic good or service that a consumer or group of consumers will want to purchase at a given price.

The demand curve is usually downward sloping, since consumers will want to buy more as price decreases. Demand for a good or service is determined by many different factors other than price, such as the price of substitute goods and complementary goods. In extreme cases, demand may be completely unrelated to price, or nearly infinite at a given price.

Along with supply, demand is one of the two key determinants of the market price.

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.

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 of buying that good.

As a result, people will naturally avoid buying a product that will force them to forgo the consumption of something else they value more. The chart below shows that the curve is a downward slope.

TYPES OFDEMAND:

1.Direct and indirectdemand:

Producers' goods and consumers' goods: demand for goods that are directly used for consumption by the ultimate consumer is known as direct demand (example: Demand for T shirts). On the other hand demand for goods that are used by producers for producing goods and services. (example: Demand for cotton by a textile mill)

2. Derived demand and autonomousdemand:

When a produce derives its usage from the use of some primary product it is known as derived demand. (example: demand for tyres derived from demand for car) Autonomous demand is the demand for a product that can be independently used. (example: demand for a washing machine)

3. Durable and non durable goodsdemand:

Durable goods are those that can be used more than once, over a period of time (example: Microwave oven) Non durable goods can be used only once (example: Band-aid)

4. Firm and industrydemand:

Firm demand is the demand for the product of a particular firm. (example: Dove soap) The demand for the product of a particular industry is industry demand (example: demand for steel in India)

5. Total market and market segmentdemand:

A particular segment of the markets demand is called as segment demand (example: demand for 21 laptops by engineering students) the sum total of the demand for laptops by various segments in India is the total market demand. (example: demand for laptops in India)

6. Short run and long rundemand:

Short run demand refers to demand with its immediate reaction to price changes and income fluctuations. Long run demand is that which will ultimately exist as a result of the changes in pricing, promotion or product improvement after market adjustment with sufficient time.

7. Joint demand and Compositedemand:

When two goods are demanded in conjunction with one another at the same time to satisfy a single want, it is called as joint or complementary demand. (example: demand for petrol and two wheelers) A composite demand is one in which a good is wanted for several different uses. (example: demand for iron rods for various purposes)

8. Price demand, income demand and crossdemand:

Demand for commodities by the consumers at alternative prices are called as price demand. Quantity demanded by the consumers at alternative levels of income is income demand. Cross demand refers to the quantity demanded of commodity 'X' at a price of a related commodity 'Y' which may be a substitute or complementary to X.

DETERMINANTS OFDEMAND

i. Generalfactors

- Change in the number ofbuyers
- Change in consumer incomes Change in consumertastes

- Change in the prices of complementary and substitute goods

Additional factors related to luxury goods anddurables

- Change in consumer expectations in futureincome

- Change in consumer expectations of future prices Additional factors related to marketdemand

1. **Price of thecommodity**

   The consumer will buy more of a commodity when its price declines and vice versa,because it increases his purchasing power. He can therefore buy more of it.Price and the Demand vary inversely.

2. **Income of theconsumer**

   The consumer will buy more of a commodity when his income increases and viceVersa. Both demand and income of the consumer move in the same direction.It may be reverse for inferior goods

   here demand will increase with decrease in the income and vice-versa.

3. **Price of the relatedgoods**

   When a change in the price of one commodity influences the demand of the other commodity and so the commodities are interrelated. These related commodities are of two types: substitutes and complements.

   When the price of one commodity and the quantity demanded of other commodity are move is same direction, it is called as substitutes

   When the price of one commodity and the quantity demanded of other commodity are move is opposite direction, it is called as complementary

4. **Taste andpreferences**

   If the consumer taste and preferences are favour of a commodity results in greater demand,
   And if it against the commodity it results in smaller demand for the commodity.

5. Additional factors such as expectation in income and prices

   In case the consumer expects a higher income in future ,he spends more at present and thereby the demand for the good increases and vice versa.

Similarly if the consumer expects future prices of the good to increase he would rather like to buy the commodity now more than on later, This will increase the demand for the commodity.

DEMANDFUNCTION:

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-to-pay are income, tastes and preferences, and price of substitutes

Individual Demand function

Qdx = f(Px, Y, P1……Pn-1, T, A ,Ey, Ep, u)

Where

Qdx= qty demanded for the product X

Px = price of the product

Y = level of household income

P1….Pn-1 = price of all the other related products
T = tastes of the consumer

A = advertising

Ey = consumer‘s expected future income

Ep= consumer‘s expected future price

U= all those determinants that are not covered in the list determinants

Market Demand function

Qdx = f(Px, Y, P1……Pn-1, T, A ,Ey, Ep, P, D, u)

Qdx,Px,Y,P1…Pn-1,T,A, Ey,Ep,U are the same as the individual demand function

P = population

D = distribution of consumers in various categories such as income, age, sex etc.,

ELASTICITY OFDEMAND

If price rises by 10% - what happens to demand?

We know demand will fall

By more than 10%?

By less than 10%?

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 OFDEMAND

Price elasticity of demand measures the percentage change in quantity demanded caused by a percent change in price. As such, it measures the extent of movement along the demand curve. This elasticity is almost always negative and is usually expressed in terms of absolute value. If the elasticity is greater than 1 demand is said to be elastic; between zero and one demand is inelastic and if it equals one, demand is unit-elastic.

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

Calculating the Percentage Change in QuantityDemanded

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= ∞

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

ED=0

Income elasticity ofdemand

Income elasticity of demand measures the percentage change in demand caused by a percent change in income. A change in income causes the demand curve to shift reflecting the change in demand. YED is a measurement of how far the curve shifts horizontally along the X-axis. Income elasticity can be used to classify goods as normal or inferior. With a normal good demand varies in the same direction as income. With an inferior good demand and income move in opposite directions.(Represented by 'YED')[2]

The Income Elasticity of Demand: responsiveness
of demand to changes in incomes

A positive sign denotes a normal good

A negative sign denotes an inferiorgood

MEASURING THE INCOME ELASTICITY

Income elasticity of demand (Yed) measures the relationship between a change in quantity demanded and a

change in real income

Yed= % change indemand

% change in income

TYPES OF INCOME ELASTICITY

POSITIVE INCOME ELASTICITY

A rise in income will cause a rise in demand

A fall in income will cause a fall in demand

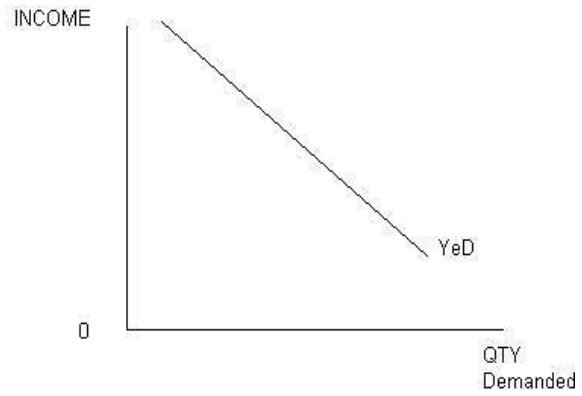
NEGATIVE INCOME ELASTICITY

An increase in income will result in a decrease in demand.

A decrease in income will result in a rise in demand.

ALSO known as INFERIORGOODS

Diagram of negative incomeelasticity



ZERO INCOME ELASTICITIES

This occurs when a change in income has NO effect on the demand for goods.

A rise of 5% income in a rich country will leave the Demand for toothpaste unchanged

2.5.3. Cross Elasticity:

The responsiveness of demand of one good to changes in the price of a related good – either a substitute or a complement

In economics, the cross elasticity of demand or cross-price elasticity of demand measures the responsiveness of the demand for a good to a change in the price of another good.

It is measured as the percentage change in demand for the first good that occurs in response to a percentage change in price of the second good. For example, if, in response to a 10% increase in the price of fuel, the demand of new cars that are fuel inefficient decreased by 20%, the cross elasticity of demand would be
$-20\%/10\% = -2$.

DEMAND FORECASTINGMETHODS

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 topass.

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

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 theforecast.

i. OPINION POLLINGMETHODS

a. EXPERTS OPINIONMETHOD

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

b. CONSUMER 'S SURVEYMETHOD

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

c. COMPLETE ENUMERATIONSURVEY

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.

d. SURVEYMETHOD

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

ii. STATISTICALMETHODS

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 mathematicaltechniquestoextrapolatetothefuture.Theassumptionofallthesetechniquesisthatthe

forces responsible for creating the past, will continue to operate in the future. This is often a valid assumption when forecasting short term horizons, but it falls short when creating medium and long term forecasts. The further out we attempt to forecast, the less certain we become of the forecast

b. Simulation methods - Simulation methods involve using analogs to model complex systems. These analogs can take on several forms. A mechanical analog might be a wind tunnel for modeling aircraft performance. An equation to predict an economic measure would be a mathematical analog. A metaphorical analog could involve using the growth of a bacteria colony to describe human population growth. Game analogs are used where the interactions of the players are symbolic of socialinteractions

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 timeseries.

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 periodt+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. It is also easy to adjust for past errors-easy to prepare follow-on forecasts, ideal for situations where many forecasts must be prepared, several different forms are used depending on presence of trend or cyclical variations. In short, an ES is an averaging technique that uses unequal weights; however, the weights applied to past observations decline in an exponentialmanner

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. Such an approach should result in a line which we can call a "best fit" to the sample data. The least-squares method achieves this result by calculating the minimum average squared deviations between the sample y points and the estimated line. A procedure is used for finding the values of a and b which reduces to the solution of simultaneous linear equations. Shortcut formulas have been developed as an alternative to the solution of simultaneousequations..

g. **Regression and Moving Average**: When a time series is not a straight line one may use the moving average(MA)andbreak-upthetimeseriesintoseveralintervalswithcommonstraightlinewithpositive

trends to achieve linearity for the whole time series. The process involves transformation based on slope and then a moving average within that interval. For most business time series, one the following transformations might be effective

MEANING OFSUPPLY

Supply of a commodity refers to the various quantities of the commodity which a seller is willing and able to sell at different prices in a given market at a point of time, other things remaining the same. Supply is what the seller is able and willing to offer for sale. The Quantity supplied is the amount of a particular commodity that a firm is willing and able to offer for sale at a particular price during a given timeperiod.

DETERMINANTS OFSUPPLY

1. The cost of factors of production: Cost depends on the price of factors. Increase in factor cost increases the cost of production, and reducessupply.
2. The state of technology: Use of advanced technology increases productivity of the organization and increases itssupply.
3. External factors: External factors like weather influence the supply. If there is a flood, this reduces supply of various agriculturalproducts.
4. Tax and subsidy: Increase in government subsidies results in 43 more production and highersupply.
5. Transport: Better transport facilities will increase thesupply.

6. Price: If the prices are high, the sellers are willing to supply more goods to increase theirprofit.
7. Price of other goods: The price of other goods is more than ‘X’ then the supply of ‘X’ will beincreased.

SUPPLYFUNCTION

Sx = f(Px,Py, Pz,… ;Pf ,O,T)

Sx=Amount supplied of good x

Px= Price of good X

Py,Pz= Prices of other goods in the market

Pf = Prices of factors of production

O = objective of the producer

T = State of technology used by the producer to produce good x

ELASTICITY OFSUPPLY

Responsiveness of producers to changes in the price of their goods or services. As a general rule, if prices rise so does the supply.

Elasticity of supply is measured as the ratio of proportionate change in the quantity supplied to the proportionate change in price. High elasticity indicates the supply is sensitive to changes in prices, low elasticity indicates little sensitivity to price changes, and no elasticity means no relationship with price. Also called price elasticity of supply.

Price elasticity of supply measures the relationship between change in quantity supplied and a change in price. The formula for price elasticity of supply is:

Percentage change in quantity supplied / Percentage change in price

Kinds Of Supply Elasticity

1. **Price elasticity ofsupply:**
   Price elasticity of supply measures the responsiveness of changes in quantity supplied to a change in price.
2. **Perfectlyinelastic:**
   If there is no response in supply to a change in price. (Es = 0)
3. **Inelastic supply:**

The proportionate change in supply is less than the change in price (Es =0-1)

4. **Unitaryelastic:**
   The percentage change in quantity supplied equals the change in price (Es=1)
5. **Elastic:**
   The change in quantity supplied is more than the change in price (Ex= 1- ∞)
6. **Perfectlyelastic:**
   Suppliers are willing to supply any amount at a given price (Es=∞) 44 The major determinants of elasticity of supply are availability of substitutes in the market and the time period, Shorter the period higher will be the elasticity.

FACTORS THAT DETERMINE ELASTICITY OF SUPPLY

The elasticity of supply depends on the following factors

The value of price elasticity of supply is positive, because an increase in price is likely to increase the quantity supplied to the market and vice versa. The elasticity of supply depends on the following factors:

SPARE CAPACITY

How much spare capacity a firm has - if there is plenty of spare capacity, the firm should be able to increase output quite quickly without a rise in costs and therefore supply will be elastic

STOCKS

The level of stocks or inventories - if stocks of raw materials, components and finished products are high then the firm is able to respond to a change in demand quickly by supplying these stocks onto the market - supply will be elastic

EASE OF FACTOR SUBSTITUTION

Consider the sudden and dramatic increase in demand for petrol canisters during the recent fuel shortage. Could manufacturers of cool-boxes or producers of other types of canister have switched their production processes quickly and easily to meet the high demand for fuel containers?

If capital and labour resources are occupationally mobile then the elasticity of supply for a product is likely to be higher than if capital equipment and labour cannot easily be switched and the production process is fairly inflexible in response to changes in the pattern of demand for goods andservices.

TIME PERIOD

Supply is likely to be more elastic, the longer the time period a firm has to adjust its production. In the short run, the firm may not be able to change its factor inputs. In some agricultural industries the supply is fixed and determined by planting decisions made months before, and climatic conditions, which affect the production, yield.

Economists sometimes refer to the momentary time period - a time period that is short enough for supply to be fixed i.e. supply cannot respond at all to a change in demand.

UNIT-III

PRODUCTION FUNCTION AND COST ANAYSIS

Production Function – Returns of Scale – Production optimization – Least cost output – isoquants – Managerial uses of production function. Cost concepts – Cost function – Types of cost – Determinants of cost – Short run and Long run cost curves – Cost output Decision – Estimation of Cost.

A production function is a function that specifies the output of a firm, an industry, or an entire economy for all combinations of inputs. This function is an assumed technological relationship, based on the current state of engineering.

CONCEPT OF PRODUCTIONFUNCTION

The production function relates the output of a firm to the amount of inputs, typically capital and

labor

In a general mathematical form, a production function can be expressed as:

$Q = f(X1,X2,X3,...,Xn)$

where:

Q = quantity of output

X1,X2,X3,...,Xn = quantities of factor inputs (such as capital, labour, land or raw materials). This general form does not encompass joint production; that is a production process that has multiple co-products or outputs

COBB-DOUGLAS PRODUCTION FUNCTION

A standard production function which is applied to describe much output two inputs into a production process

make. It is used commonly in both macro and micro examples.

For capital K, labor input L, and constants a, b, and c, the Cobb-Douglas production function is:

f(k,n) = bkanc

If a+c=1 this production function has constant returns to scale. (Equivalently, in mathematical language, it would then be linearly homogenous.) This is a standard case and one often writes (1-a) in place of c. Log-linearization simplifies the function, meaning just that taking logs of both sides of a Cobb-Douglass function gives one better separation of the components.

In the Cobb-Douglass function the elasticity of substitution between capital and labor is 1 for all values of capital and labor

STAGES IN PRODUCTION FUNCTION

To simplify the interpretation of a production function, it is common to divide its range into 3 stages. In Stage 1 (from the origin to point B) the variable input is being used with increasing output per unit, the latter reaching a maximum at point B (since the average physical product is at its maximum at that point). Because the output per unit of the variable input is improving throughout stage 1, a price-taking firm will always operate beyond this stage.

In Stage 2, output increases at a decreasing rate, and the average and marginal physical product are declining. However the average product of fixed inputs (not shown) is still rising, because output is rising while fixed input usage is constant. In this stage, the employment of additional variable inputs increases the output per unit of fixed input but decreases the output per unit of the variable input. The optimum input/output combination for the price-taking firm will be in stage 2, although a firm facing a downward-sloped demand curve might find it most profitable to operate in Stage 1. In Stage 3, too much variable input is being used relative to the available fixed inputs: variable inputs are over-utilized in the sense that their presence on the margin obstructs the production process rather than enhancing it. The output per unit of both the fixed and the variable input declines throughout this stage. At the boundary between stage 2 and stage 3, the highest possible output is being obtained from the fixedinput

RETURNS TOSCALE

Returns to scale: the change in percentage output resulting from a percentage change in all the factors of production. They are increasing, constant and diminishing returns to scale.
Increasing returns to scale may arise: if the output of a firm increases more than in proportionate to an increase in all inputs. For example the input factors are increased by 50% but the output has doubled (100%).
Constant returns to scale: when all inputs are increased by a certain percentage the output increases by the same

percentage. For example input factors are increased by 50% then the output has also increased by 50 percentages. Let us assume that a laptop consists of 50 components we call it as a set. In case the firm purchases 100 sets they can assemble 100 laptops but it is not possible to produce more than 100 units.

Diminishing returns to scale: when output increases in a smaller proportion than the increase in inputs it is known as diminishing return to scale. For example 50% increment in input factors lead to only 20% increment in the output.

It is classified into three stages; let us understand the stages in terms of returns to scale.

Stage I:

The total production increased at an increasing rate. We refer to this as increasing stage where the total product, marginal product and average production are increasing.

Stage II:

The total production continues to increase but at a diminishing rate until it reaches the next stage. Marginal product, average product are declining but are positive. The total production is at the maximum level at the end of the second stage with a zero marginal product.

Stage III:

In this third stage total production declines and marginal product becomes negative. And the average production also started decline. Which implies that the change in input factors there is a decline in the over all production along with the average and marginal. Our multiplier must always be positive, and greater than 1, since we want to look at what happens when we increase production.

PRODUCTIONOPTIMIZATION

Benefits

1. An accurate forecast of future cash flows and associatedrisks

2. Cost savings by avoiding unnecessary attention to areas that are non-critical, and improved focus on areas of highervalue

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 considerablyhigher

4. Systematic identification of key technological risks for a specific concept, and setting of priorities for further technology development, qualification and testing (to reduce and manage theserisks)

5. Improved insight into technical and managerial issues that may cause critical failures and productionlosses

6. A road map on how to improve production capacities and production availability based on risk and cost-benefitassessments.

Important parameters include

a. Production capacityprofiles

b. Demand profiles and productprices

c. Physical asset layout anddesign
d. Equipment reliabilityperformance

e. Maintenance and repair activities including spare partstrategies

f. Operation and mobilisationactivities.

LEAST COSTINPUT:

Optimal InputLevel

Given the marginal revenue product and marginal factor cost, one can compute the optimal amount of the variable input for using it in the production process.
An economic activity should be expanded as long as the marginal benefits exceed the marginal costs.
The optimal point occurs at the point where the marginal benefits are equal to the marginal costs.
MRPx = MFCx

Single InputSystem

Profit maximization requires production at a level where the marginal revenue is equal to the marginal cost. Because the only variable in the system is input L, the marginal cost of production is as follows:

$MC = \Delta TC / \Delta Output$

$MC = PL / MPL$

Since marginal revenue should be equal to the marginal cost at the profit-maximizing level,

A profit-maximizing firm always employs an input upto the point where its marginal revenue product equals its cost.

1. The firm can employ as much labor as it needs by paying workers $50 per period (the labor market is considered perfectlycompetitive).
2. The firm can sell all the ore it can produce at a price of $10 per ton MRP = MFC =$50
3. In a case of less than six workers, MRP > MFC and the addition of more workers will increase revenue. Beyond six, the opposite istrue.

The Production Function with Two Variable Inputs

In the ore-mining example, assume that both capital and labor are now variable.

1. ProductionIsoquant

A production isoquant is either a geometric curve or an algebraic function representing all the various combinations of the two inputs that can be used in producing a given level of output. It can also be defined as a curve (a locus of points) showing all possible combinations of inputs physically capable of producing a given fixed level ofoutput.

2. Marginal Rate of TechnicalSubstitution

It is the rate at which one input may be substituted for another input in the production process. It can also be defined as the rate at which one input is substituted for another along an isoquant. The rate of change of one variable with respect to another variable is given by the slope of a curve relating the two variables. Thus, the rate of change of input Y with respect to X, i.e. the rate at which Y may be substituted for X in the production process is given by the slope of the curve relating Y to X. This is the slope of the isoquant.

Since the slope is negative and one wishes to express the substitution rate as a positive quantity, a negative sign is attached to the slope.

MRTS =Y1 - Y2/X1 - X2= $\Delta Y/ \Delta X$

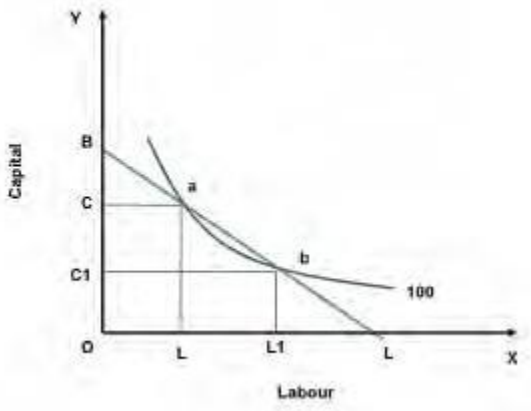
OQUANT

- 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. Isoquants are typically drawn on 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.

An isoquant shows the extent to which the firm in question has the ability to substitute between the two different inputs at will in order to produce the same level of output. An isoquant map can also indicate decreasing or increasing returns to scale based on increasing or decreasing distances between the isoquant pairs of fixed output increment, as you increase output. If the distance between those isoquants increases as output increases, the firm's production function is exhibiting decreasing returns to scale; doubling both inputs will result in placement on an isoquant with less than double the output of the previous isoquant. Conversely, if the distance is decreasing as output increases, the firm is experiencing increasing returns to scale; doubling both inputs results in placement on an isoquant with more than twice the output of the original isoquant.

As with indifference curves, two isoquants can never cross. Also, every possible combination of inputs is on an isoquant. Finally, any combination of inputs above or to the right of an isoquant results in more output than any point on the isoquant. Although the marginal product of an input decreases as you increase the quantity of the input while holding all other inputs constant, the marginal product is never negative in the empirically observed range since a rational firm would never increase an input to decreaseoutput.



MANAGERIAL USES OF PRODUCTIONFUNCTION:

A detailed study of cost analysis is very useful for managerial decisions. It helps the management

1. To find the most profitable rate of operation of thefirm.

2. To determine the optimum quantity of output to be produced andsupplied.

3. To determine in advance the cost of businessoperations.

4. To locate weak points in production management to minimizecosts.

5. To fix the price of theproduct.

6. To decide what sales channel touse.

7. To have a clear understanding of alternative plans and the right costs involved inthem.

8. To have clarity about the various costconcepts.

9. To decide and determine the very existence of a firm in the productionfield.
10. To regulate the number of firms engaged inproduction.

11. To decide about the method of cost estimation orcalculations.

12. To find out decision making costs by reclassifications of elements, reprising of input factors etc, so as to fit the relevant costs into management planning, choice etc.

COST CONCEPTS:

Cost Determinants

The cost of production of goods and services depends on various input factors used by the organization and it differs from firm to firm. The major cost determinants are:

1. **Level of output:** The cost of production varies according to the quantum of output. If the size of production is large then the cost of production will also bemore.

2. **Price of input factors**: A rise in the cost of input factors will increase the total cost ofproduction.

3. **Productivities of factors of production:** When the productivity of the input factors is high then the cost of production willfall.

4. **Size of plant:** The cost of production will be low in large plants due to mass production withmechanization.

5. **Output stability:** The overall cost of production is low when the output is stable over a period oftime.

6. **Lot size:** Larger the size of production per batch then the cost of production will come down because the organizations enjoy economies ofscale.

7. **Laws of returns:** The cost of production will increase if the law of diminishing returns applies in thefirm.

8. **Levels of capacity utilization:** Higher the capacity utilization, lower the cost of production.

9. **Time period:** In the long run cost of production will bestable.

10. **Technology**: When the organization follows advanced technology in their process then the cost of production will below.

3.7 COST CONCEPTS:

1. Money Cost and RealCost

When cost is expressed in terms of money, it is called as money cost. It relates to money outlays by a firm on various factor inputs to produce a commodity. In a monetary economy, all kinds of cost estimations and calculations are made in terms of moneyonly.

.Hence, the knowledge of money cost is of great importance in economics. Exact measurement of money cost is possible.

When cost is expressed in terms of physical or mental efforts put in by a person in the making of a product, it is called as real cost. It refers to the physical, mental or psychological efforts, the exertions, sacrifices, the pains, the discomforts, displeasures and inconveniences which various members of the society have to undergo to produce a commodity. It is a subjective and relative concept and hence exact measurement is not possible.

2. Implicit or Imputed Costs and ExplicitCosts

Explicit costs are those costs which are in the nature of contractual payments and are paid by an entrepreneur to the factors of production [excluding himself] in the form of rent, wages, interest and profits, utility expenses, and payments for raw materials etc. They can be estimated and calculated exactly and recorded in the books of accounts. Implicit or imputed costs are implied costs. They do not take the form of cash outlays and as such do not appear in the books of accounts. *They are the earnings of owner employed resources.*

3. Actual costs and OpportunityCosts

Actual costs are also called as outlay costs, absolute costs and acquisition costs. They are those costs that

involve financial expenditures at some time and hence are recorded in the books of accounts. *They are the actual expenses incurred for producing or acquiring a commodity or service by a firm.* For example, wages paid to workers, expenses on raw materials, power, fuel and other types of inputs. They can be exactly calculated and accounted without any difficulty.

Opportunity cost of a good or service is measured in terms of revenue which could have been earned by employing that good or service in some other alternative uses.

4. Direct costs and indirect costs

Direct costs are those costs which can be specifically attributed to a particular product, a department, or a process of production. For example, expenses on raw materials, fuel, wages to workers, salary to a divisional manager etc are direct costs. On the other hand, indirect costs are those costs, which are not traceable to any one unit of operation. They cannot be attributed to a product, a department or a process.

For example, expenses incurred on electricity bill, water bill, telephone bill, administrative expenses etc.

5. Past and futurecosts.

Past costs are those costs which are spent in the previous periods. On the other hand, future costs are those which are to be spent. in the future. Past helps in taking decisions for future.

6. Marginal and Incrementalcosts

Marginal cost refers to the cost incurred on the production of another or one more unit.
It implies additional cost incurred to produce an additional unit of output It has nothing to do
with fixed cost and is always associated with variable cost. Incremental cost on the other hand refers to the costs involved in the production of a batch or group of output. They are the added costs due to a change in the level or nature of business activity.

For example, cost involved in the setting up of a new sales depot in another city or cost involved in the production of another 100 extra units.

7. Fixed costs and variablecosts.

Fixed costs are those costs which do not vary with either expansion or contraction in output. They remain constant irrespective of the level of output. They are positive even if there is no production. They are also called as supplementary or over head costs.

On the other hand, *variable costs are those costs which directly and proportionately increase or decrease with the level of output produced*. They are also called as prime costs or direct costs.

8. Accounting costs and economiccosts.

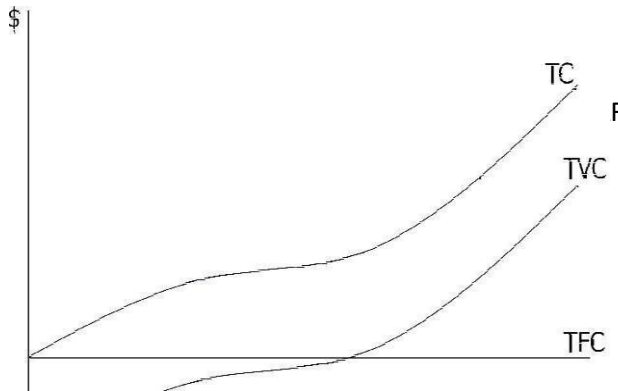
Accounting costs are those costs which are already incurred on the production of a particular commodity. It includes only the acquisition costs. They are the actual costs involved in the making of a commodity. On the other hand, *economic costs are those costs that are to be incurred by an entrepreneur on various alternative programs.* It involves the application of opportunity costs in decision making.

SHORT RUN AND LONG RUN COSTCURVES

- Short-run cost curves are normally based on a production function with one variable factor of production that displays first increasing and then decreasing marginal productivity. Increasing marginal productivity is associated with the negatively sloped portion of the marginal cost curve, while decreasing marginal productivity is associated with the positively sloped portion. The average fixed cost (AFC) curve is the cost of the fixed factor of production divided by the quantity of units of theoutput,

While the average variable cost (AVC) curve cost traces out the per unit cost of variable factor of production. The U-shaped average total cost (ATC) curve is derived by adding the average fixed and variable costs. The marginal cost (MC) intersects both the AVC and ATC curves at their minimum points. Declining average total costs are explained as the result of spreading the fixed costs over greater quantities and, at low quantities, the result of the increasing marginal productivity, in addition. Increasing average costs occur when the effect of declining marginal productivity overwhelms the effect of spreading the fixed costs.

The long-run cost curves, usually presented in a separate diagram, are also expressed most commonly in their average, or per unit, form, represented here in Figure 2. The long-run average cost (LRAC) curve is shown to be an envelope of the short-run average cost (SRAC) curves, lying everywhere below or tangent to the short-run curves. The firm is constrained in the shortrun in selecting the optimal mix of factors of production and so will never be able to find a cheaper mix than can be found in the long-run when there are no constraints. If there are a discrete number of plant sizes available, the LRAC will be the scalloped curve obtained by joining those parts ofthe



ESTIMATION OFCOST:

Cost Calculations

Using the above abbreviations and Q for the quantity of output:
ATC = TC/Q
AFC = TFC/Q
AVC = TVC/Q
MC = change in TC/change in Q

Example: Let's suppose you are making 50 bottles of wine each week. You know that your fixed costs add up to $300, and your variable costs amount to $900. You also know that if you were to make extra 5 bottles, your total cost would rise by $60. What is your total cost; average total cost; average total cost; average variable cost; average fixed cost; and marginal cost?
Answer: Total cost = $300 + $900 = $1200
ATC = $1200/50 = $24
AVC = $900/50 = $18
AFC = $300/50 = $6
MC = $60/5 = $12

UNIT –IV

PRICING

Determinants of Price – Pricing under different objectives and different market structures – price discrimination – Pricing methods in practice – Role of government in pricing control.

PRICE:

The price of a product or service is the number ofmonetary units a customer has to pay to receiveone unit of that product or service‘ (Simon 1989).

This was the traditional definition, but in the1990s a broader interpretation of the priceconcept became customary. Illustrative of this

broader view is Hutt and Speh‘s observation that the cost of an industrial good includes much more than the seller‘s price‘ (Hutt and Speh 1998)

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.

Pricing is the manual or automatic process of applying prices to purchase and sales orders, based on factors such as: a fixed amount, quantity break, promotion or sales campaign, specific vendor quote, price prevailing on entry, shipment or invoice date, combination of multiple orders or lines, and many others. Automated systems require more setup and maintenance but may prevent pricing errors. The needs of the consumer can be converted into demand only if the consumer has the willingness and capacity to buy the product. Thus pricing is very important inmarketing.

PRICING UNDER DIFFERENT OBJECTIVES AND DIFFERENT MARKET STRUCTURES

PerfectCompetition

Economists in general recognize four major types of market structures (plus a larger

number of subtypes):
• PerfectCompetition
• Monopoly
• Oligopoly
• Monopolisticcompetition

Perfect Competition

where “p” stands for perfect, pure or price, whichever you may like.
A p-competitive structure is defined by four characteristics. For an industry to have a pcompetitive structure, it must have all four of these characteristics, which are as follows:
• Many buyers andsellers
• A homogenousproduct
• Sufficientknowledge
• Freeentry
These all are characteristics that favor price competition.

Many Buyers and Sellers

The idea is that the sellers and buyers are small relative to the size of the market, so that no one of them can "fix the price." If there are "many small sellers," it makes it much harder for any seller or group of sellers to "rig the price." Similarly, if there are "many small buyers," there is little opportunity for buyers to "rig the price" in their own favor.

Homogeneity

If the product (or service) of one seller differed significantly from that of another seller, then each seller would probably be able to retain at least some of the customers, even at a very high price. These would be the customers who just prefer this seller's product (or service) to that of someone else. The assumption of homogenous products serves to rule that out.

Knowledge

Some versions of the "perfectly competitive" structure include "perfect knowledge" as one of its characteristics. But, of course, "perfect knowledge" never exists in reality. Perfect information is little less clear than the other assumptions-- we can hardly assume that people know everything there is to know.

Free Entry

Free entry means that new companies can set up in business to compete with established companies whenever the new competitors feel that the profits are high enough to justify the investment. This is, first and foremost, a legal condition. That is, in a "perfectly competitive" market, there are no government restrictions on the entry of new competition.
Let us sum up the four characteristics of p-competition:
1. Many small sellers-- The more the sellers, the more substitutes the consumerhas.
2. Homogenous products-- When the product is homogenous, then the substitutes are "perfectsubstitutes."

3. Sufficient knowledge-- When customers know the prices offered by other sellers, they will be better able to switch, increasing elasticityfurther.
4. Free entry-- In the long run, companies may even enter the market to provide still moresubstitutes.

Other Market Forms

The other three market structure models can be defined in terms of the ways in which they deviate from the characteristics of p-competition.
In a “monopoly,” there is just one seller of a good or service for which there is no close substitute.
In an “oligopoly,” there are two or more, but only a few firms.
In “monopolistic competition,” the products are not homogenous but are "differentiated."
We do not have a standard model for "insufficient knowledge," but, at least in some cases, that seems to work similarly to "product differentiation."

Market Structure	Seller Entry Barriers	Seller Number	Buyer Entry Barriers	Buyer Number
Perfect Competition	No	Many	No	Many
Monopolisticcompetition	No	Many	No	Many
Oligopoly	Yes	Few	No	Many
Oligopsony	No	Many	Yes	Few
Monopoly	Yes	One	No	Many
Monopsony	No	Many	Yes	One

The correct sequence of the market structure from most to least competitive is perfect competition, imperfect competition,oligopoly, and pure monopoly.

The main criteria by which one can distinguish between different market structures are: the number and size of producers and consumers in the market, the type of goods and services being traded, and the degree to which

information can flow freely.

PRICEDISCRIMINATION.

 Price discrimination occurs when a firm charges a different price from different groups of consumers for an identical good or service, for reasons not associated with costs.

Objectives of Price Discrimination:

 Firms will be able to increase revenue. This will enable some firms to stay in business which otherwise would have made a loss.

 Increased revenues can be used for research and development which benefit consumers

 Some consumers will benefit from lower fares. Eg.old people benefit from lower tra in companies,old peopleare more likely to be poor

 The other objective to the consumer of price discrimination are – price discrimination is likely toincrease output and make the good or service available to more people and the increased competition in the market leads to lower prices and more choice.

Types of Price Discrimination:

First degree price discrimination:

o In first degree price discrimination, price varies by customer's willingness or ability topay.

o This arises from the fact that the value of goods issubjective.

Second degree price discrimination:

o In second degree price discrimination, price varies according to quantity sold. Larger quantities are available at a lower unitprice.

Peak and Off-Peak Pricing:

o Peak and off-peak pricing are common in the telecommunications industry, leisure retailing and in the travel sector.

o Telephone and electricity companies separate markets by time: There are three rates for telephone calls: a daytime peak rate, and an off peak evening rate and a cheaper weekendrate.

Third degree price discrimination:

o In third degree price discrimination, price varies by attributes such as location or by customer segment, or in the most extreme case, by the individual customer'sidentity.

Disadvantages of Price Discrimination:

1. Some consumers will end up paying higherprices.
2. Those who pay higher prices may not be thepoorest

5.4 PRICING METHODS IN PRACTICE:

Pricing policies are the decisions by a company determining prices to be charged for its products. There are a number of different pricing policies or strategies which a firm may adopt in order to achieve its pricing objectives.

i. **Skimpricing**:

 It uses high prices to obtain a high profit and quick recovery of the development costs in the early stages of a product‟s life before competition intensities.

ii. **Penetration pricing**:

 Is the use of lower than normal prices to increase market share. It is also used to establish a new product in a market which is expected to have a long-life and potential for growth.

iii. Mixed pricing:

 It is a policy which initially uses skim pricing and then, as competition increases, price cutting, sometimes even below cost, to penetrate the market, increases market share and eliminate competition.

iv. **Destructivepricing**:

 It involves reducing the price of an existing product or selling a new product at an artificially low price in order to destroy competitor‟s sales.

v. **Differential or discrimination pricing**:

 It is the use of different prices for the same product when it is sold in different locations or market segments.

 Whilst small buyers or those located in remote areas may be charged a higher price to cover the additional distribution costs.

vi. Absorption pricing:

 It involves the use of lower than normal prices ether to launch a new product or to periodically boost the sales of existing products.

vii. **Marginal costpricing**:

 It is something used when a firm has some spare capacity which it wishes to use without diverting a way from its regular business. Essentially, a firm incurs fixed costs such as rent, whether or not it is operating at full capacity.

viii. **Negotiablepricing**:

 It is common in industrial markers.

 The price is individually calculated to take account of costs, demand and any specific customer requirement.

ix. **Singlepricing**:

 It involves a policy of charging one price to everyone. Examples include standard bus fares, prices of books etc.

x. **Marketpricing**:

 It is determined by the interaction of demand and supply.

 The seller has little control over the price in this situation which is likely to fluctuate daily.

xi. **Sealed-bid pricing**:

 It is widely used in government, public sector and other private sector markets whereby suppliers are invited to tender(offer a fixed price) for the supply of specified goods or services.

UNIT –V

FINANCIAL ACCOUNTING (ELEMENTARY TREATMENT)

Balance Sheet and related concepts – Profit & Loss Statement and related concepts – Financial Ration Analysis – Cash flow analysis – Funds flow analysis – Comparative financial statements – Analysis & Interpretation of Financial statements. Investments – Risks and return evaluation of investment decision –m Average rate of return – Payback period – Net present Value – Internal rate of return

Introduction to the profit and lossaccount

Richard Bowett introduces the important concept of the profit and loss account:

Introduction - the Meaning of Profit

The starting point in understanding the profit and loss account is to be clear about the meaning of "profit".

Profit is the incentive for business; without profit people wouldn't‘t bother. Profit is the reward for taking risk; generally speaking high risk = high reward (or loss if it goes wrong) and low risk = low reward. People won‘t take risks without reward. All business is risky (some more than others) so no reward means no business. No business means no jobs, no salaries and no goods and services.

This is an important but simple point. It is often forgotten when people complain about excessive profits and rewards, or when there are appeals for more taxes to pay for eg more policemen on the streets.

Accounting Principles:
Principle refers to the fundamental belief (or) a general truth which are established does not change
Accounting concepts

- Business entityconcept
- Money measurement/Enterpriseconcepts
- Going concern/ continuityconcept
- Costconcepts
- Dual aspects ofConcepts
- A/c ing Periodconcepts
- Revenue
- Expenditure

Realization concept orRevenue

- Objective evidenceconcept
- Accrualconcept

Accounting conventions

- Consistency
- Full disclosure
- Conservation
- Materiality

Parts of the Profit and LossAccount

The Profit & Loss Account aims to monitor profit. It has three parts.

1) The TradingAccount.

This records the money in (revenue) and out (costs) of the business as a result of the business‘ _trading‘ ie buying and selling. This might be buying raw materials and selling finished goods; it might be buying goods wholesale and selling them retail. The figure at the end of this section is the GrossProfit.

2) The Profit and Loss Accountproper

This starts with the Gross Profit and adds to it any further costs and revenues, including overheads. These further costs and revenues are from any other activities not directly related to trading. An example is income received from investments.

3) The Appropriation Account. This shows how the profit is _appropriated‘ or divided between the three uses mentionedabove.

Uses of the Profit and Loss Account.

1) The main use is to monitor and measure profit, as discussed above. This assumes that the information recording is accurate. Significant problems can arise if the information is inaccurate, either through incompetence or deliberatefraud.

2) Oncetheprofit(loss)hasbeenaccuratelycalculated,thiscanthenbeusedforcomparisoniejudginghowwell

the business is doing compared to itself in the past, compared to the managers‘ plans and compared to other businesses.

3) There are ways to _fix‘ accounts. Internal accounts are rarely _fixed‘, because there is little point in the managers fooling themselves (unless fraud is going on) but public accounts are routinely _fixed‘ to create a good impression out to the outside world. If you understand accounts, you can usually (not always) spot these _fixes‘ and take them out to get a truepicture.

5.4 CASH FLOW STATEMENT

Complementing the balance sheet and income statement, the cash flow statement (CFS), a mandatory part of a company's financial reports since 1987, records the amounts of cash and cash equivalents entering and leaving a company. The CFS allows investors to understand how a company's operations are running, where its money is coming from, and how it is being spent. Here you will learn how the CFS is structured and how to use it as part of your analysis of a company.

A cash fl ow statement is one of the most important fi nancial statements for a project or business. The statement can be as simple as a one page analysis or may involve several schedules that feed information into a central statement.

A cash fl ow statement is a listing of the flows of cash into and out of the business or project. Think of it as your checking account at the bank. Deposits are the cash infl ow and withdrawals (checks) are the cash outflows. The balance in your checking account is your net cash fl ow at a specifi c point in time.

The Structure of the CFS

The cash flow statement is distinct from the income statement and balance sheet because it does not include the amount of future incoming and outgoing cash that has been recorded on credit. Therefore, cash is not the same as

net income, which, on the income statement and balance sheet, includes cash sales and sales made on credit. (To learn more about the credit crisis, read Liquidity And Toxicity: Will TARP Fix The Financial System?)

Cash flow is determined by looking at three components by which cash enters and leaves a company: core operations, investing and financing,

Operations

Measuring the cash inflows and outflows caused by core business operations, the operations component of cash flow reflects how much cash is generated from a company's products or services. Generally, changes made in cash, accounts receivable, depreciation, inventory and accounts payableare reflected in cash from operations.

Cash flow is calculated by making certain adjustments to net income by adding or subtracting differences in revenue, expenses and credit transactions (appearing on the balance sheet and income statement) resulting from transactions that occur from one period to the next. These adjustments are made because non-cash items are

calculated into net income (income statement) and total assets and liabilities (balance sheet). So, because not all transactions involve actual cash items, many items have to be re-evaluated when calculating cash flow from operations.

For example, depreciation is not really a cash expense; it is an amount that is deducted from the total value of an asset that has previously been accounted for. That is why it is added back into net sales for calculating cash flow. The only time income from an asset is accounted for in CFS calculations is when the asset is sold.

Changes in accounts receivable on the balance sheet from one accounting period to the next must also be reflected in cash flow. If accounts receivable decreases, this implies that more cash has entered the company from customers paying off their credit accounts - the amount by which AR has decreased is then added to net sales. If accounts receivable increase from one accounting period to the next, the amount of the increase must be deducted from net sales because, although the amounts represented in AR are revenue, they are not cash.

An increase in inventory, on the other hand, signals that a company has spent more money to purchase more raw materials. If the inventory was paid with cash, the increase in the value of inventory is deducted from net sales. A decrease in inventory would be added to net sales. If inventory was purchased on credit, an increase in accounts payable would occur on the balance sheet, and the amount of the increase from one year to the other would be added to net sales.

The same logic holds true for taxes payable, salaries payable and prepaid insurance. If something has been paid off, then the difference in the value owed from one year to the next has to be subtracted from net income. If there is an amount that is still owed, then any differences will have to be added to net earnings.

Investing

Changes in equipment, assets or investments relate to cash from investing. Usually cash changes from investing are a "cash out" item, because cash is used to buy new equipment, buildings or short-term assets such as marketable securities. However, when a company divests of an asset, the transaction is considered "cash in" for calculating cash from investing.

Financing

Changes in debt, loans or dividends are accounted for in cash from financing. Changes in cash from financing are "cash in" when capital is raised, and they're "cash out" when dividends are paid. Thus, if a company issues a bond to the public, the company receives cash financing; however, when interest is paid to bondholders, the company is reducing its cash.

Analyzing an Example of a CFS

Cash Flow Statement
Company XYZ
FY Ended 31 Dec 2003

all figures in USD

Cash Flow From Operations		
Net Earnings		2,000,000
Additions to Cash		
Depreciation		10,000
Decrease in Accounts Receivable		15,000
Increase in Accounts Payable		15,000
Increase in Taxes Payable		2,000
Subtractions From Cash		
Increase in Inventory		(30,000)
Net Cash from Operations		2,012,000
Cash Flow From Investing		
Equipment		(500,000)
Cash Flow From Financing		
Notes Payable		10,000
Cash Flow for FY Ended 31 Dec 2003		**1,522,000**

5.6 FINANCIAL STATEMENT ANALYSIS

MEANING

‖Tearingapart‖ the financial
statements and looking at the relationships

Who analyzes financial statements?

Internal users (i.e., management)

External users (emphasis of chapter)

METHODS OF FINANCIAL STATEMENTS ANALYSIS

Horizontal Analysis

Vertical Analysis

Common-Size Statements

Trend Percentages

Ratio Analysis

HORIZONTAL ANALYSIS(COMPARATIVE STATEMENTS)

Using comparative financial statements tocalculatedollar or percentage changes in a financial

Statement item from one period to the next.

CLOVER CORPORATION

Compa ra tive Ba la nce She e ts

De cembe r 31, 1999 a nd 1998

	1999	1998	Increase (Decrease) Amount
Asse ts			
Current a ssets:			
Ca sh	**$ 12,000**	**$ 23,500**	
Accounts re ceivable , ne t	**60,000**	**40,000**	
Inventory	**80,000**	**1,00,000**	
Pre pa id e x pe nse s	**3,000**	**1,200**	
Tota l current a ssets	**1,55,000**	**1,64,700**	
Property a nd e quipment:			
La nd	**40,000**	**40,000**	
Buildings a nd e quipment, ne t	**1,20,000**	**85,000**	
Tota l property a nd e quipment	**1,60,000**	**1,25,000**	
Tota l a ssets	**$ 3,15,000**	**$ 2,89,700**	

CLOVER CORPORATION

Comparative Balance Sheets

35

December 31, 1999 and 1998

			Increase (Decrease)	
	1999	1998	Amount	%
Liabilities and Stockholders' Equity				
Current liabilities:				
Accounts payable	$ 67,000	$ 44,000	$ 23,000	52.3
Notes payable	3,000	6,000	(3,000)	(50.0)
Total current liabilities	70,000	50,000	20,000	40.0
Long-term liabilities:				
Bonds payable, 8%	75,000	80,000	(5,000)	(6.3)
Total liabilities	1,45,000	1,30,000	15,000	11.5
Stockholders' equity:				
Preferred stock	20,000	20,000	-	0.0
Common stock	60,000	60,000	-	0.0
Additional paid-in capital	10,000	10,000	-	0.0
Total paid-in capital	90,000	90,000	-	0.0
Retained earnings	80,000	69,700	10,300	14.8
Total stockholders' equity	1,70,000	1,59,700	10,300	6.4
Total liabilities and stockholders' equity	$ 3,15,000	$ 2,89,700	$ 25,300	8.7

VERTICAL ANALYSIS (COMMON SIZE STATEMENTS)

For a single financial statement, each item

is expressed as a percentage of a significant total,

e.g., all income statement items are expressed as a percentage of sale

ER CORPORATION

Comparative Income Statement s

For the Years Ended December 31, 1999 and 1998

			Increase (Decrease)	
	1999	**1998**	**Amount**	**%**
Net sales	**$ 5,20,000**	**$ 4,80,000**	**$ 40,000**	**8.3**
Cost of goods sold	**3,60,000**	**3,15,000**	**45,000**	**14.3**
Gross margin	**1,60,000**	**1,65,000**	**(5,000)**	**(3.0)**
Operating expenses	**1,28,600**	**1,26,000**	**2,600**	**2.1**
Net operating income	**31,400**	**39,000**	**(7,600)**	**(19.5)**
Interest expense	**6,400**	**7,000**	**(600)**	**(8.6)**
Net income before taxes	**25,000**	**32,000**	**(7,000)**	**(21.9)**
Less income taxes (30%)	**7,500**	**9,600**	**(2,100)**	**(21.9)**
Net income	**$ 17,500**	**$ 22,400**	**$ (4,900)**	**(21.9)**

5.3 RATIO ANALYSIS

Expression of logical relationships between items in a financial statement of a single

(e.g., percentage relationship between revenue and net income)

Gross profit ratios

Net profit ratio

Operating profit ratio

Operating ratio

Specific expense ratio

Return on investment

Return of equity

Earnings per share

nIterestcoverge ratio.

Activityratios:

Debt or turnover ratio

Debt or velocity ratio

Credit or turnover ratio

Credit or velocity ratio

Stock turnoverratio

Stock velocityratio

Working capital turnover ratio

Fixed asset turnover ratio.

Balancesheetratios:

Current ratio

Liquidity ratio

6.1 INVESTMENTS

6.3 Capital Budgeting

It is the process of making investment decision in capital expenditures. Capital expenditure defined as an expenditure the benefits of which are expected to be received more than one year. It is incurred in one point of time and the benefits are received in different point of time infuture.

- Cost of acquisition of permanent asset as land and building, plant and machinery, goodwill
- Cost of addition, expansion and improvement or alteration in fixedassets
- Cost of replacement of permanentassets

- Research and development project costetc.

Why the capital budgeting is considered as most important decision over theothers?

- The capital budgeting is the decision of long term investments, which mainly focuses the acquisition or improvement on fixedassets.
- The capital budgeting decision is a decision of capital expenditure or long term investment or long term commitment of funds on the fixedassets.

Principles

- Decisions are based on cash flow not accountingincome
- The capital budgeting decisions are based on the cash flow forecasts instead of relying on the accounting income.these are the incremental cash flows that is additional cash flows that will occur if the project undertaken compare to if the project is notundertaken
- Timing of cashflows
- To estimate the timing of cash flows as accurately as possible.it is used the concept of time value of money,the time at which the cash flows occur significantly impacts at the present value of theproject.
- Financing cost should beignored
- Cash flow should beconsidered
- Opportunity cost are alsoconsidered

Need andimportance/Nature

(1) Largeinvestment

- Involve large investment offunds
- Fund available is limited and the demand for funds exceeds the existingresources
- Important for firm to plan and control capital expenditure

(2) Long term commitment offunds

- Involves not only large amount of fund but also long term on permanentbasis.
- It increases financial risk involved in investmentdecision.
- Greater the risk greater the need for planning capitalexpenditure.

(3) IrreversibleNature

- Capital expenditure decision areirreversible
- Once decision for acquiring permanent asset is taken, it become very difficult to dispose of these assets without heavylosses.

(4) Long-term effect onprofitability

- Capital expenditure decision are long-term and have effect on profitability of aconcern

- Not only present earning but also the future growth and profitability of the firm depends on investment decision taken today
- Capital budgeting is needed to avoid over investment or under investment in fixedassets.

(5) Difficulties of investmentdecision

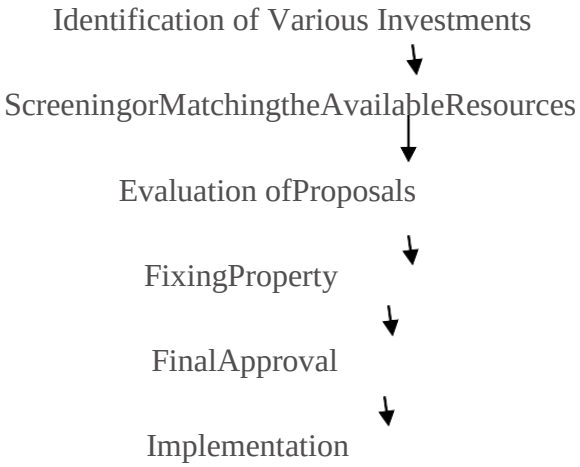
- Long term investment decision are difficult to take because (i) decision extends to a series of year beyond the current accountingperiod
- (ii) uncertainties of future
- (iii) higher degree ofrisk

(6) Nationalimportance

- Investment decision taken by individual concern is of national importance because it determines employment, economic activities and economicgrowth.

Identifying Relevant Cash Flows &Capital budgetingProcess

Capital budgeting is a difficult process to the investment of available funds. The benefit will attained only in the near future but, the future is uncertain. However, the following steps followed for capital budgeting, then the process may be easierare.



1. **Identification of various investments proposals:** The capital budgeting may have various investment proposals. The proposal for the investment opportunities may be defined from the top management or may be even from the lower rank. The heads of various department analyse the various investment decisions, and will select proposals submitted to the planning committee of competentauthority.

2. **Screening or matching the proposals:** The planning committee will analyse the variousproposals

and screenings. The selected proposals are considered with the available resources of the concern. Here resources referred as the financial part of the proposal. This reduces the gap between the resources and the investmentcost.

3.Evaluation: After screening, the proposals are evaluated with the help of various methods, such as pay back period proposal, net discovered present value method, accounting rate of return and risk analysis.

4. Fixing property: After the evolution, the planning committee will predict which proposals will give more profit or economic consideration. If the projects or proposals are not suitable for the concern's financial condition, the projects are rejected without considering other nature of theproposals.

5.Final approval: The planning committee approves the final proposals, with the help of the following:

(a) Profitability,

(b) Economic

(c) Financial

6. Implementing: The competent authority spends the money and implements the proposals. While implementing the proposals, assign responsibilities to the proposals, assign responsibilities for completing it, within the time allotted and reduce the cost for thispurpose. The network techniques used suchas PERT and CPM. It helps the management for monitoring and containing the implementation of the proposals.

7. Performance review of feedback: The final stage of capital budgeting is actual results compared with the standard results. The adverse orunfavourable results identified and removing the various difficulties of the project. This is helpful for the future of theproposals.

Evaluation Of Investment Proposals

Traditional methods or Non-Discounted method

8.2.1Net Present Value method

Internal Rate of Returnmethod

Rate of return method or accountingmethod

Time-adjusted method or discounted methods

(i) Net Present Valuemethod

(ii) Internal Rate of Returnmethod

(iii)Profitability Indexmethod

Pay-back period method

This method represent the period in which total investment in permanent asset pays back itself. It measure the period of time for the original cost of a project to be recovered from the additional earning of a project itself.

Investment are ranked according to the length of the payback period, investment with shorter payback period is preferred.

How the payback period is calculated?

The payback period is ascertained in the following manner

- Calculate annual net earnings(profit) before depreciation and after taxes, these are called annual cash inflow
- Divide the initial outlay(cost) of the project by the annual cash inflow, where the project generates constant annual cashinflow

Payback period = cash outlay of the project or original cost of the asset

Annual cash inflows

- Where the annual cash inflows (profit before depreciation and after taxes) are unequal the payback period is found by adding up the cash inflows until the total is equal to the initial cash outlay of theproject.

Selection criterion

Lesser the pay back period is better for acceptance of the project

Improvement of Traditional Appraoch To Payback Period:

PPPI $= \frac{post\ pay\ back\ profit}{investment} \times 100$

Post payback profitability = Annual cash inflow (estimated life-payback period)

Payback Reciprocal Method

Payback Reciprocal method $= \frac{Annual\ csh\ inflow\ (or)\ Total\ investment}{Cash\ outlay\ of\ project} = \frac{10000}{50000} = 0.2$

Discounted payback period : - (time value of money in consider)

Merits

- ❖ It is a simple method to calculate andunderstand
- ❖ It is a method in terms of years for easier appraisal

Demerits

- ❖ It is a methodrigid
- ❖ It has completely discarded the principle of time value ofmoney
- ❖ It has not given any due weight age to cash inflows after the paybackperiod
- ❖ It has sidelined the profitability of theproject.

Average Rate of Return method(ARR)

This method takes in to account the earnings expected from the investment over their whole life. It is known as accounting rate of return.

The project which gives the higher rate of return is selected when compared to one with lower rate of return.

Selection criterion of the projects:

Highest rate of return of the project only is given appropriate weightage.

The Accounting rate of return can be computed as follows

$$\text{Accounting Rate of Return (ARR)} = \frac{\text{Annual Return}}{\text{Original Investment}} \times 100$$

$$\text{Accounting Rate of Return (ARR)} = \frac{\text{Average Annual Return}}{\text{Average Investment}} \times 100$$

Average annual return= Average profit after depreciation and taxation of the entire life of project i.e. for many number of years

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

$$= \frac{\text{Opening Investment} - \text{Scrap}}{2}$$

.

Merits

- ❖ It is simple method to compute the rate ofreturn
- ❖ Average return is calculated from the total earnings of the enterprise through out the life of thefirm
- ❖ The entire rate of return is being computed on the basis of the available accountingdata

Demerits

- ❖ Under this method, the rate of return is calculated on the basis of profits extracted from the books but not on the basis of cashinflows
- ❖ The time value of money is notconsidered
- ❖ It does not consider the life period of theproject
- ❖ The accounting profits are different from one concept to another which leads to greater confusion in determining the accounting rate of return of theprojects

Net present valuemethod(NPV)

It is a modern method of evaluating investment proposals. It takes into consideration time value of money and calculates the return on investment by introducing the factor of time element.

- First determine the rate of interest that should be selected as the minimum required rate ofreturn
- Compute the present value of total investmentoutlay
- Compute the present value of total cashinflows
- Calculate Net Present Value by subtracting the present value of cash inflow by present value of cash outflow.
- NPV = is positive or zero the project isaccepted
- NPV= is negative then reject theproposal
- In order for ranking the project the first preference is given to project having maximum positive net present value

NPV= Present value of cash inflow – present value of cash outflow/Initial investment

Selection criterion of Net present value method

Initial Outlay <Present value of Benefits=> +ve NPV:- Project can be accepted
Initial Outlay>Present value of Benefits=>-ve NPV:-Project can be rejected

Internal Rate of Return Method(IRR)

Under the internal rate of return method, the cash flows of a project are discounted at a suitable rate by hit and trial method, which equates the net present value so calculated to the amount of investment.

- Determine the future net cash flows during the entire economic life of the project. The cash inflows are estimated for future profits before depreciation but aftertaxes
- Determine the rate of discount at which the value of cash inflow is equal to the present value of cash outflows
- Accept the proposal if the internal rate of return is higher than or equal to the cost of capital or cut offrate.
- In case of alternative proposals select the proposal with the highest rate ofreturn.

Profitability index method or Benefit cost Ratio(P.I)

It is also called Benefit cost ratio is the relationship between present value of cash inflow and present value of cash outflow

$$PI(Gross) = \frac{\text{present value of cashinflows}}{\text{Present value of cash outflows/ Initial Investment}}$$

$$PI\ (net) = \frac{\text{NPV (Net Present Value)}}{\text{Initial investment}}$$

The proposal is accepted if the profitability index is more than one and is rejected the profitability index is less than one

The various projects are ranked; the project with higher profitability index is ranked higher than other.

Profitability Index Method (or) Benefit cost Ratio: -

PI= $\frac{PVCI}{PV\ of\ cash\ out\ flows}$

h outflow.

1. Calculate the average rate of return for Projects X and Y from thefollowing

	Project X	Project Y
Investments	Rs.40,000	Rs.60,000
Expected Life	4 years	5 years

Projected net income (after interest, depreciation and taxes)

Year	Project X Rs	Project Y Rs
1.	4,000	6,000
2.	3,000	6,000
3.	3,000	4,000
4.	2,000	2,000
5.	——-	2,000
	12,000	20,000

- If the required rate of return is 10% which project should beundertaken?
- Average Rate of Return = Original Investment / Average Annual IncomeX100
- The first step is to find out the average annual income of the two different projects X andY
- Average Annual Income Total income throughout the Project / Life of theProject
- Average Annual Income (Project X) = Rs. 12,000 / 4 years = Rs.3,000
- Average Annual Income (Project Y) = Rs. 20,000 / 5 years = Rs.4,000
- The next step is to find out the Average rate ofreturn:
- Average rate of return (Project X) = Rs. 3,000 / Rs.40,000 X100=7.5%
- Average rate of return (Project Y) = Rs.5,000/ Rs. 60,000 X 100 =8.33%
- Both the projects are lesser than the given required rate of return. These two projects are not advisable to invest only due to lesser accounting rate ofreturn.

2. **Calculate the NPV of 2 projects and suggest which of 2 projects should be accepted assuming a discount rate10%**

Particular	Project 'X'	Project 'Y'
Initial investment	20000	30000
Estimate life	5 yrs	5 yrs
Scrapvalue	1000	2000

The profit before dep. & Tax, cash flows are as follows

Year	**1**	**2**	**3**	**4**	**5**
Project X	5000	10000	10000	3000	2000
Project Y	20000	10000	5000	3000	2000

Solution

Project 'X'

S.No.	**Cash inflow**	**PV @10%**	**PV of cash inflows**
1	5000	0.909	4545
2	10000	0.826	8260
3	10000	0.751	7510
4	3000	0.683	2049
5	2000	0.620	1240
6	1000 (scrap value)	0.620	620
		Total PV of cash in flows	**24224**

NPV = PV cash of inflow - PV of cash outflows

= 24224 - 20000 NPV = 4224

	120000	40000	80000	32000	48000		88000

Project Y

S.NO.	Cash in flow	PV@ 10%	PV of cash inflows
1	20000	0.909	18180
2	10000	0.826	8260
3	5000	0.751	3755
4	3000	0.683	2049
5	2000	0.620	1240
6	2000 (scrap value)	0.620	1240
		Total PV of cash inflows	**34724**

NPV = PV of cash inflow - PV of cash outflows

NPV = 34724 – 30000

NPV = 4724

Comment:

NPV of project y is higher than the NPV of project x. Hence, it is suggested that project y should be selected.

3. Initial outlay Rs. 50000, life of an asset 5 years Annual cash flow Rs. 12500, Calculate IRR

   Present value Factor = $\frac{Initial\ outlay}{Annual\ cash\ flow} = \frac{50000}{12500} = 4$

   Present value of annuity table 8 % approximately

   IRR = 8 %

Illustration

When the annual cash flows over the life of the asset.

Initial investment Rs. 60000, Life of the Assets 4 years

1st year - 15000
2nd year – 20000
3rd year – 30000

4^{th} year -20000

Calculate the IRR

Discount 10%				12%		14%		15%	
Year	Annual cash time	PVF	P value	PVF	P value	PVF	P. VALUE	PVF	P Value
1	15000	.909	13635	.892	13380	.877	13155	.869	13055
2	20000	.826	16520	.797	15940	.769	15380	.756	15120
3	30000	.751	22530	.711	21330	.674	20220	.657	19710
4	20000	.683	13660	.635	12700	.592	11840	.571	11420
			66345		63350		60595		59285

Workings:

15% = 715 (60000 – 59285)

14% = 595 (60595 – 60000)

$14 + \frac{595}{715+595} \times (15-14)$

$14 + \frac{595}{1310} \times (1)$

14+0.45 (1)

IRR = 14.45 %

ENGINEERING ECONOMICS AND FINANCIAL ACCOUNTING

Question BankPart A

TWO MARK & SIXTEENMARK QUESTIONS AND ANSWERS

UNIT – I

1. Define ManagerialEconomics

By combining the basic definition of the two terms "Manager" and "Economics" you get the definition of "managerial economics" . "Managerial Economics" is the study of directing resources in a way that it most efficiently achieves the managerial goals.

Managerial Economics is also the application of the tools of economics analysis in decision making in actual business situations.

2. What is meant by Micro economic analysis?

Micro economic analysis deals with the problems of an individual firm, industry or consumer etc. It helps in dealing with issues which go on within the firm such as putting the resources available with the firm to its best use, allocating resources within various activities of the firm to its best use, allocating resources within various activities of the firm and also deals with being technically and economically efficient.

3. What is meant by Prescriptive approach?

Prescriptive or normative approach tells "How things ought to be done"

4. What is meant by descriptive approach ?

Descriptive approach tells "how things are done".

5. Scope of ManagerialEconomics:

The following aspects constitute the scope of managerial economics:

1. Objectives of a businessfirm
2. Demand analysis andforecasting
3. Costanalysis
4. Productionmanagement
5. Supplyanalysis
6. Pricing decisions, policies andpractices
7. Profitmanagement

8. Capital budgeting and investment decisions
9. Decision theory underuncertainty
10. Competition

6.Give the Objectives of a businessfirm

The objectives of a business firm may be varied. Apart from generating profits a firm has many other objectives like being a market leader , being a cost leader, achieving superior efficiency, achieving superior quality, achieving superior customer responsiveness etc.

7.What is meant by SupplyAnalysis?

Supply analysis deals with the various aspects of supply of a commodity. Certain important aspects of supply analysis are supply schedule, curves and function, elasticity of supply, law of supply and its limitations and factors influencing supply.

8.What is meant by Capital Budgeting?

Capital budget is the planning of expenditure on assets.

9.Use of EngineeringEconomics:

Engineering economics accomplishes several objectives. It presents the aspects of traditional economics that are relevant for business and engineering decision making in real life.

10.DefineLogistics:

It is the movement of goods from one place to the other.

11.Define InboundLogistics:

It is the movement of raw materials to the factory premises.

12.Define Outboundlogistics:

It is the movement of finished goods to wholesaler or retail outlets and to the final consumers.

13. DefineStatistics:

Statistics provide the basis for empirical testing of theory. Generalizations or theory cannot be accepted for practice unless these theories are checked against the data from the reality. This way, theories become more practical and useful in real life business situation.

14. Define Economics and define the divisions ofEconomics:

Economics has two divisions namely micro economics and macro economics. Micro economics is the branch of economics where the unit of study is an individual or a firm while macro economics is branch of economics where the unit of study is aggregative in character and considers the entire economy.

15. DefineAccounting:

Accounting can be defined as the recording of financial operations of an organization. Managerial decisions on profits and sales etc. derive input largely from the accounting statement of a firm.

16. Define Managerial Economics andMathematics:

Many of the theories in mathematics will find use in economics. Concepts such as calculus, vectors, logarithms and exponentials, determinants and matrix, algebra etc are some to name a few. Managerial economics is metrical in character. It estimates various economic relationships prediction relevant economic quantities and uses them in decision making and planning for the future. So mathematics becomes an important tool in managerial economics.

17. Define Operationsresearch:

Operations research was developed as science during the Second World War to solve the complex operations problems of planning and resource allocation in defence and in basic industries which specifically supplied military equipments. These theories find high usage in various field of management to solve problems pertaining to logistics, both inbound and outbound and also the movement of material within the factory premises etc.

18. Define acompetitor.

The competitors of the firm are also likely to react or even pro-act to any decisions made by the firm. Competitors always try to navigate the competitive advantage gained by the firm. Thus managers will have to make wise investments in projects that will be hard to be imitated by the competition.

19.Define Decision theory underuncertainty:

Most of the business decisions taken by the managers are done under uncertainty. Uncertainties pertaining to demand, cost, price, profit, capital etc prevail most of the time when decisions are made. This makes the whole decision making process difficult and complex. The tools used in economic analysis have been modified and refined so as to take into account the uncertainty and thus help decisions making in logical and scientific manner.

20.Define ProfitManagement:

All business firms are motivated and committed to produce profits. Profits are one of the tangible yardsticks to measure the performance of the firm and the managers concerned. It also signifies the health of the firm. Profits are influenced by various factors such as cost of production, revenues and other factors both internal and external to the firm. Profits are hard to predict.

21.Define PricingDecisions

A firm's profitability and success greatly depend on the pricing decisions and the pricing policies of the firm. The patronization of the firm's products by the customers, the competition faced by the product along with the profits of the firm, largely depends on the price of the product. Pricing also depends on the environment in which the firm operates, competitions, customers etc.

22.Define ProductionManagement:

When a manager organizes and plans the firm's production functions i.e. when he tries to convert the raw materials to finished product, he faces a number of economic problems. The study of 'production function' describes the input output relationship.

23.Define CostAnalysis:

One way to earn higher profits is by controlling the cost involved in producing the product. Study of cost is necessary for making efficient and effective managerial decisions. If a detailed cost analysis and estimation is done, the firm can move upon effective profit management and sound pricing practices.

24.What are the Macro economic Conditions:

The economy in which firms operate is predominantly a free enterpriseeconomy.

(a) The present day economy is undergoing rapid technological and economic changesand,
(b) The government intervening in the economic affairs has increased in the recent times and is likely to go upfurther.

25. What are the Common points in Managerial Economics?

1.Managerial economics deals with the decision making by managers, executives and engineers of economicnature.

2.Managerial economics is goaloriented.

3.Managerial Economics is both conceptual and metrical.

4.Managerial economics ispragmatic.

16 MARKS

1. Discuss the nature & scope of managerial economics.

Nature of managerial economics:

1. Applied economics theory

- Application of macro &microeconomics
- Decisionmaking
- Forwardplanning

2. Pragmatic

- Making decisions&actions
- Improve the decisionmaking

3. Multidisciplinary

- Statistics
- Management
- Operational researchmathematics
- Accounting psychology

4. Descriptive &prescriptive

(Cause &effect relationship)

Predict theoutcome

5. Appliedscience

- Formulation of theories

Cause &effectrelationship

Scope of managerial economics.

- Allocation ofresources
- To use micro economicconcepts
- Effective decisionmaking
- Fundamentalquestions
- What toproduce?
- How toproduce
- For when toproduce?
- Production &costanalyst
- Marketstructure
- Profit & non-profitorganization

2. Briefly explain about firm& Discuss about the types of firm

Firms:
It is a unit that produces a goods (or) services for a sale.
Types of firms
Private sector (owned by private people)
1. Sole proprietorship (singleowner)
2. Partnership (more than onepeople)
3. Joint stock (companiesact)
4. Cooperatives. (Voluntary organization with non-profitmotives)

Public sector (owned by public people)

- Corporate board(government invests inamount)
- Corporate company(govt controls economicactivities)
- Department(specific purpose related to socialutility)

Joint sector (combination of private & public sector)

3. Discuss about the disciplines of managerialeconomics.

Managerial economics & Economics

- Managerial economics & theory of Decisionmaking
- Managerial economics & Operationsresearch

- Managerial economics&Statistics
- Managerial economics&Accounting
- Managerial economics & Computerscience
- Managerial economics &Sociology

4. Discuss about various subjects involved in managerialeconomics.

- Managerial economics &Economics

- Managerial economics & theory ofDecision-making
- Managerial economics & Operationsresearch
- Managerial economics&Statistics
- Managerial economics&Accounting
- Managerial economics & Computerscience
- Managerial economics&Sociology.

5. Briefly explain about importance of ManagerialEconomics

- Allocation ofresources
- To use micro economicconcepts
- Effective decisionmaking
- Fundamentalquestions
- What toproduce?
- How toproduce
- For when toproduce?
- Production &costanalyst
- Market structure & Profit & non -profitorganization

6. i. Briefly explain about the types of decisionmaking.

- Major&supplementarydecisions
- Organizational &personaldecisions
- Basic&routinedecisions
- Programmed & non programmeddecision
- Group&individualdecision
- Policy&operatingdecision

ii. **List out the steps involved in decision making .**

Identifying the problem

↓

Analyzing theproblem

↓

Developing the alternative solution to the problems

↓

Evaluating the alternatives(Qualitative & Quantitative)

↓

Deciding the best course of action(Past Experience, Experimentation & Research and analysis)

UNIT – II
DEMAND AND SUPPLY ANALYSIS

1.DefineDemand.

Demand indicates the quantities of products (goods service) which the firm is willing and financially able to purchase at various prices, holding other factors constant.

2. Define Determinants ofDemand:

An individual's demand for a commodity depends on his desire and capability to purchase it. Apart from the desire to purchase, there are many other factors which influence the purchase of a product (demand). These are known as demand determinants.

3. What is meant by Tastes and preferences ofConsumers:

The change of tastes and preferences of consumers in favor of a commodity will result in a greater demand for the commodity. The opposite also holds good i.e. if the tastes and preferences of consumer change against the commodity, the demand will suffer.

4. What are the two kinds of Consumersexpectations?

Consumers have two kind of expectations one pertains to their future income and the second is related to the future prices of the goods and its related goods.

5. DefineAdvertising

Advertisements provide information about the presence of quality products in the market and induces customer's to buy more. It also promotes the latest preferences of the general public to masses.

6. Define the Law of Demand:

The relation of price to quantity demanded / sales is known as the law of demand. Law of demand states that the higher the price is the lower the demand is and vice versa, holding other factors as constant.

7. Define the price quantityrelation.

This price quantity relation can be expressed as demand being a function of price

$$D=f(p).$$

8. What Highlights of the law ofdemand:

1. The relationship between price and quantity demanded isinverse.
2. Price is the independent variable and demand the dependentvariable.
3. Law of demand assumes that except for price and demand, other factors remainconstant.

9. What is Demand Shift: (Change indemand)

Factors shift the demand for a particular product either on the right side of the demand curve or to the left side of the demand curve based on the changes in price. These factors, other than the price of a good that influence demand are known as demand shifters. The shift in the demand either to the left or right is called the demand shift.

10. What are the Exceptions to law of demand:

1. In share markets on would have noticed that the rise in price of the shares increases, the sales of the shares while decrease in the price of the shares results in decrease of sale of theshares.
2. Some goods which act as status symbol and have a snob appeal fall under this category. Here when the price of the product rises then the appeal of the product also rises and thus the demand. Some example are diamonds andantiques.
3. Finally, ignorance on the part of the consumer may cause the consumer to buy at a higher price, especially when the rise in price is taken to mean an improvement in quality and a reduction in price as deterioration inquality.

11. Define Individual demand:

The quantity of a product demanded by an individual purchaser at a given price is known as individual demand.

12. Define Market demand:

The total quantity demanded by all the purchasers together is known as the market demand.

13. What are the types of Demandfunction

1. Consumptionfunction
2. Product consumptionfunction
3. Differences in regionalincomes
4. Income expectation anddemand

14. What are the Characteristics of demand function?

1. The long run relationship between consumption and income is some what stable, and expenditure on consumption is usually about 85 to 90% of theincome.
2. The consumption function is highly unstable in short runs and the relationship between income and consumption cannot be predicted by any mathematicalformula.
3. During the periods of economic prosperity, there is an absolute increase in the expenditure on consumption, but decrease as a percentage of income during periods of depression, the consumption declines absolutely but the expenditure on the consumption increases as a percentage ofincome.
4. In the periods of economic recovery, the rate of increase in consumption is higher than the rate of the decline in consumption in times ofrecession.

15. Define Product consumptionfunction:

This function can be defined as the relationship between the total income of the consumer and sales of particular products. It means that when there is a change in income there is a change in the demand for particular products.

16. Define Income expectations andDemand:

Expectations are related to people's estimates of the level and durability of the future economic conditions. The demand for many consumer durables (household appliances like TV, Washing machine, etc) is often sensitive to general expectations regarding income level.

17. What are the features of advertising demand relationship?

1. Even when there is no advertising effort done, there will be a certain amount of sales possible for a particular product by virtue of its presence in themarket.
2. There is a direct relationship between advertising and sales. Thus when there is an increased spending on advertisements. It will bring in moresales.
3. Increase in advertisements will lead to more than proportionate increase in sales only to a point. After that any increase in advertisement will have only less than proportionate effect onsales.

18. Define Elasticity ofDemand:

Elasticity of demand is defined as 'the percentage change in quantity demanded caused by one percent change in the demand determinant under consideration, while other determinants are held constant'.

19. Define demanddeterminant

It is the degree of change in demand to the degree of change in any of the demand determinants.

20. What are the Various Elasticities?

1. Price elasticity ofdemand
2. Income elasticity ofdemand
3. Cross elasticity ofdemand
4. Promotional elasticity
5. Exportations elasticity ofdemand

21. Define Price Elasticity ofDemand

Price elasticity of demand can be defined as "the degree of responsiveness of quantity demanded to a change in price".

22. What are the Types of priceelasticity:

1. Perfectly elasticdemand
2. Absolutely inclastic demand or perfectly inelasticdemand
3. Unit elasticity ofdemand
4. Relatively elasticdemand
5. Relatively inelasticdemand

23. Define Absolutely inelastic demand or perfectly inelastic demand(ep=):

Absolutely inelastic demand is where a change in price howsoever large, causes no change in the quantity demanded of a product. Here, the shape of the demand curve is vertical.

24. Define Relatively elastic demand(ep>1):

It is where a reduction in price leads to more than proportionate change in demand. Here the shape of the demand curve in flat.

25. What are theFactors determining price elasticity of Demand?

The elasticity of demand depends on the following factors namely

1. Nature of theproduct
2. Extent ofusage
3. Availability ofsubstitutes
4. Income level ofpeople
5. Proportion of the income spent of theproduct
6. Urgency of demandand
7. Durability of aproduct.

16 MARKS

1. i. Define law of demand &explain the types ofdemand.

According to Marshall, The amount demanded increases with a fall in price and diminishes with a rice in price, other remaining constant.

Types of Demand

- ✓ Individual & Marketdemand
- ✓ Firm and Industryproduct
- ✓ Autonomous & Deriveddemand
- ✓ Demand for durable and non durabledemand
- ✓ Short term and long termdemand
- ✓ Joint demand and compositedemand
- ✓ Direct demand and Indirectdemand
- ✓ Total market and Market segmentdemand
- ✓ Negativedemand

ii. Why does demand curve sloping Downwards ?

- **substitutioneffect**
- incomeeffect
- new consumer creating demand

- priceeffect
- differentuses

2. Write a note on elasticity of supply & it'stypes

It is a measure of degree of responsiveness of supply to the change in price

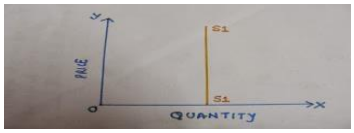
E(s) = Proportional change in supply

_____

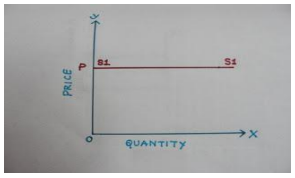
Proportional change in price

Types of Elasticity of supply

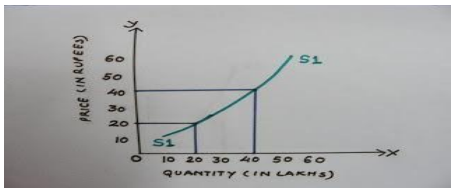
1.Completely (Perfectly) Inelastic supply: In this case the quantity supplied does not react to the changes in the price. The increase or decrease in the price does not change the quantitysupplied.



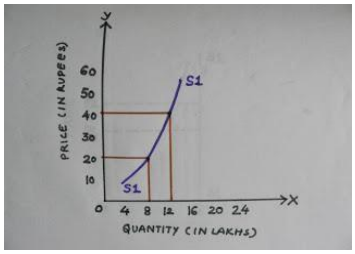
2.Completely (Perfectly) Elastic supply: When a minuscule change in price results in infinite change in the quantity supplied then it is a case of completely elastic supply. For instance when there is marginal rise in the price, then the quantity supplied risesinfinitely.



Unitary Elastic supply: When the proportionate change in quantity supplied is equal to the proportionate change in the price of the commodity then we call it as unitary or unit elasticity of supply.



4.Relatively Inelastic supply: When the percentage change in quantity supplied is less than the proportionate change in price than it is a case of relatively inelastic supply.



3. **.Briefly explain about various factors determining thedemand.**

- ✓ Price of thecommodity
- ✓ Taste &Preference
- ✓ Advertisements & SalesPropaganda
- ✓ Growth ofPopulation
- ✓ Taxrate
- ✓ Pattern of saving

Income of theconsumer

- ✓ Price of relatedgoods
- ✓ Consumer'sExpectations
- ✓ Weatherconditions
- ✓ Availability ofcredit
- ✓ Circulation ofmoney

4. **Describe concept of demand elasticity.**

It denotes a measure of the rate at which demand changes in response to the change in prices

1. Price Elasticity ofdemand
2. Income Elasticity ofdemand
3. Cross elasticity ofdemand
4. Promotional elasticity of demand

1.Price Elasticity ofdemand

Perfectly Elastic demand (E=∞)Demand change but price does not change

Perfectly Inelastic demand (E=0)

If the demand for a commodity does not change in spite of an increase or decrease in its price

Unitary Elastic demand (E=1)

Change in demand is exactly proportionate to the change in price

2.Income Elasticity of Demand

It is defined as the percentage change in the quantity demanded of a good divided by the percentage change in the income of the consumer,

$$Ey = \frac{\Delta Q}{\Delta Y} * \frac{Y}{Q}$$

3.Cross elasticity ofdemand

A change in demand for one good in response to a change in the price of another good .

$$Ec = \frac{\Delta Qx}{\Delta Py} * \frac{Py}{Qx}$$

4.Advertising and promotional elasticity ofdemand

It is a measure of the responsiveness of demand for a commodity to the change in outlay on advertisements and other promotional efforts

$$Ea = \frac{\Delta Dx}{\Delta A} * \frac{A}{Dx}$$

5. Discuss in detail about the Measurement of Price Elasticity ofDemand

1. PercentageMethod

It measures the percentage change in the quantity of a commodity demanded resulting from a given percentage change in its price

$$Ep = \frac{\%\ change\ in\ q}{\%\ change\ in\ P} * \frac{p}{q}$$

2. Point Method or GeometricMethod

It measures the elasticity of demand on different points of a demand curve. It is a variant proportionate method.

$$Ep = \frac{P.\Delta Q}{Q.\Delta P}$$

3. ArcMethod

segment of a demand curve between two points is called Arc.

$$Ep = \frac{\Delta Q}{Q1+Q2} + \frac{\Delta P}{P1+P2}$$

Where

ΔQ= change in quantity demanded

ΔP= Change in price of the commodity

P1= Original price

P2=New Price

Q1=Original quantity

Q2=New quantity

4. Total outlayMethod

It is measured on the basis of change in total outlay or total expenditure in response to change in the price of the commodity

Types:

Unitary Elasticity: Small changes in price unaffected the total outlay

Elastic demand: Small changes in price increases the total outlay

Inelastic demand: Small changes in price decreases the total outlay

5. RevenueMethod

It refers to the sale proceeds of a firm.

$$Ep = \frac{A}{A-M}$$

Where,

Ep=Stands for elasticity of demand

A=Stands for average revenue

M=Stands for Marginal revenue

2.Income Elasticity of Demand

It is defined as the percentage change in the quantity demanded of a good divided by the percentage change in the income of the consumer,

$$Ey = \frac{\Delta Q}{\Delta Y} + \frac{Y}{Q}$$

Where,

Ey= stands for income elasticity

Q=stands for quantity demanded

Y=stands for income

ΔQ= Gives change in quantity demanded

ΔY = Gives change in income

Types of Income Elasticity of demand

1. **High Income elasticity :**If Income increases in high and quantity demand also goodincreases
2. **Unitary Income elasticity:** Changes in income and quantity demanded aresame
3. **Low Income elasticity:** If Income increases in low and quantity demand also good increases
4. **Zero Income elasticity:** No change in quantity demanded by the changes in income
5. **Negative Income elasticity:** Increase in income results in decreases in quantitydemanded

3. Cross elasticity of demand

A change in demand for one good in response to a change in the price of another good .

$$Ec = \frac{\Delta Qx}{\Delta Py} * \frac{Py}{Qx}$$

Where,

Ec=stands for cross elaticity

ΔQx= changes in quantity demanded

Py=original price of good y

ΔPy=small changes in price of y

Qx=changes in quantity demanded

Applications of cross elasticity in management

a. **InProduction**
b. **Demand forecasting andpricing**
c. **In international trade and balance ofpayments**

4. Advertising and promotional elasticity of demand

It is a measure of the responsiveness of demand for a commodity to the change in outlay on advertisements and other promotional efforts

$$Ea = \frac{\Delta Dx}{\Delta A} * \frac{A}{Dx}$$

Factors determining advertising elasticity of demand

- ✓ Type ofcommodity
- ✓ Marketshare
- ✓ Rival'sreactions
- ✓ State ofeconomy

- ✓ Effect of advertising in terms oftime

6. Tools of Forecasting Techniques

1. **Qualitativemodel**

a. DelphiTechnique

A systematicforecastingmethodthat involves structuredinteraction among a groupof expertson a subject.

The Delphi Technique typically includes at least two roundsof experts answering questions and giving justificationfor their answers, providingthe opportunitybetween rounds for changesand revisions.

b. Nominal group technique

The **nominal group technique** (NGT) is a group process involving problem identification, solution generation, and decision making.

c. Marketing researchmethod

The process or set of processes that links the consumers, customers, and end users to the marketer through information — information used to identify and define marketing opportunities and problems and improve understanding of marketing as a process.

d. Sales force compositemethod

A techniqueused by production managersto projectthe future demandfor a good or servicebased on the total amountthat each salespersonanticipates being ableto sellin their region.

2. Quanitativemodel

I. Time SeriesModels

a. Last periodMethod

Uses last period's actual value as a forecast

Ft= At – 1

Ft = Forecast demand for period t

At-1= Actual demand in previous period

b. Simple AverageMethod

$$Ft=\frac{\sum_{t=1}^{n} At}{n} \quad \textbf{(OR)}$$

$$Ft=\frac{A1+A2+A3+A3+A4+\ldots.+An}{n}$$

Ft =Forecasted demand for period t

At= Actual demand for period t

n= Total no of periods

c. Moving average method

Uses an average of a specified number of the most recent observations, with each observation receiving a different emphasis (weight)

$$ft = \frac{At\text{-}1 + At\text{-}2 + At\text{-}3 + At\text{-}4 + At\text{-}5 + \ldots At n}{n}$$

Where

Ft- Forecasted demand for period t

At- Actual demand for period t

n- Total no of periods

d. Exponential smoothingmethod

A weighted average procedure with weights declining exponentially as data become older.

$$F_t = F_{t-1} + \alpha(A_{t-1} - F_{t-1})$$

Where

F_t – Forecasted demand for period t

F_{t-1} –forecasted demand for previous method

α- Smoothening constant

A_{t-1}- Actual demand for previous demand

e. Trend Project(Past data/ Predicting thefuture)

This method is a version of the linear regression technique.

$Y = a + bX$

Where

X represents the values on the horizontal axis (time)

Y represents the values on the vertical axis (demand).

2. Cause and EffectModel

a. Correlation and Regressionmethod

Linear regression is a mathematical technique that relates one variable, called an *independent variable*, to another, the *dependent variable*,

$Y = a + bX$

Y- independent variable

X- Dependent variable

a- the intercept

B- slope of the line

b. EconometricMethod

It includes endogenous –determined within the model (controlled variables) and exogenous variable-determined outside the model(uncontrolled variables)

eg., Money

C. Input and output method

It helps to determine Or forecast the demand of a particular product or services.

d. End use method

It has theoretical and practical method or value. It is influenced by the technological , structural and other changes.

UNIT III

1. **Say some of the main costconcepts.**
   1) Actual costs and opportunitycosts
   2) Incremental costs and sunk costs
   3) Explicit costs and implicitcosts
   4) Past costs and futurecosts
   5) Accounting costs and economiccosts
   6) Direct cost and indirectcost
   7) Private costs and socialcosts
   8) Controllable costs and non controllablecosts
   9) Replacement costs and originalcosts
   10) Shutdown costs and abandonmentcosts
   11) Urgent costs and postponablecosts
   12) Bussiness costs and fullsosts
   13) Fixed costs and variable costs
   14) Short run and long runcosts
   15) Incremental costs and marginalcosts
2. **What are actual costs and opportunity costs?**
   Actual costs which a firm incurs for producing or acquiring a product or a service. As example for this is the cost on raw materials, labor, rent, interest.
3. **What are incremental costs and sunk costs?**
   Incremental cost is the additional cost due to change in the level of nature or business activity. Sunk costs are the costs that are not altered by a change in quantity produced and cannot be recovered.
4. **What are Explicit costs and implicit costs?**
   Explicit or paid out costs are those expenses which are actually paid by the firm. Implicit costs are the theoretical costs in the sense that they go unrecognized by the accounting system.
5. **What are past costs and future costs?**
   Past costs are the actual costs incurred in the past are generally contained in the financial accounts. Future costs are costs that are expected to occur in some future period or periods.
6. **What are accounting costs and economic costs ?**
   Accounting costs are the actual outlay costs. Economic cost relate to the future,
7. **What is direct and indirect cost ?**
   Direct cost are traceable cost or assignable cost are the ones that have direct relationship with a unit of operation like a product, a process or a product, or a department of the firm. On the otherhand, indirect costs or non traceable costs or common or non assignable costs are the costs whose course cannot be easily and definitely traced to the plant.
8. **What are private costs and social costs?**
   Private costs are those which are actually incurred or provided for the business activity by an individual or the business firm. Social costs on the otherhand are the total costs to the society on account of production of a good.
9. **What are controllable and non controllablecosts?**
   Controllable costs are those which are capable of being controlled or regulated by the managers ant = d it can be used to assess the managerial efficiency in controlling the cost in his department. Non controllable costs are those which cannot be subjected to administrative controls and supervision.

10. **What are replacement costs and original costs?**
    Original costs or the historical costs are the costs paid for assets such as land, building, cost of plant, equipment and materials. Replacement costs are the costs that the firm incurs if it wants to replace or acquire the same assets now.
11. **What is shut down cost and abandonment cost?**
    Shutdown costs are costs in which the firm incurs if it temporarily stop its operation. Abandonment costs are the costs of retiring altogether a fixed asset from use.

16) what are incremental cost and marginalcost?

Incremental cost is important when dealing with decisions where discrete alternatives are to be compared.marginal cost deals with unity unit output.

17) what are the determinants ofcost?

1) level ofoutput

2) price ofinputs.

3) size ofplant

4) output stability

5) production lotsize

6)level of capabilityutilization

7) technology

8) learningeffect

9) breadth of productrange.

10) geographicallocation

18) what are the two aspects in cost outputrelationships?

1) cost output relationship in short run.

2)cost output relationship in longrun.

19) what are the terms involved in cost outputrelationship?

1) Average fixedcost.

2) Average variablecost.

3) Average totalcost.

20) what is level of capacity utilization?

The higher the capacity utilization fixed cost per unit of output in bound to be low.

21) what is outputstability?

Stability of output leads to savings in various kinds of hidden cost interruption and learning.

22) what is size ofplants?

Production costs are usually lower in bigger plants than smaller plants.

23) what iscost?

Cost is the money spent on producing and selling a product to the customers.the cost of a product starts from the raw materials through production costs till selling costs include the cost in maintaining outlets.

24) what is the significance of cost in managerial decisionmaking?

Study of costs is essential for making a choice from among the competing production plans.production decisions are not possible without their respective cost considerations.

25) what is price ofinput?

If the price of the raw materials labor,power increases then naturally the cost of production goes up.this cost of productions varies directly with the prices of inputs.

16 MARKS

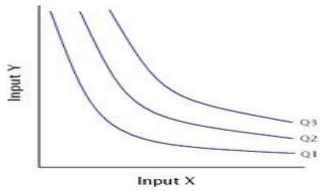
1. **Briefly explain about types of production function withillustration**

production function with one variable input

- Increasingreturn
- Negativereturn
- Decrasingreturn

production function with two variable input

- iso quants



- 2 factors of production vs capital &labour
- It slope downwards from left toright
- It can't be horizontal orvertical
- Iso quants all convex to theorigin
- Never touch xaxis
- Never touch yaxis

production function with all variableinput

- increasing return toscale
- Decreasing return toscale
- constant return toscale

- **Production function with 2 variable input**

  Iso quantcurve:

  It represent the different combination of inputs producing a particular quantity of output.

  Assumption

- *Two factor of production vs capital&*labour
- Two factor can substitute each other up to a certainlimit
- Shape of ISO quant depends upon the extent of substitutability of 2inputs
- Technology is given over a period oftime

  Isoquant map

  An isoquant map is a set of isoquants that shows the maximum attainable output from any given combination inputs.

  Types of iso quants

  Linear Isoquant:

  This type assumes perfect substitutability of factors of production: a given commodity may be produced by using only capital, or only labour, or by an infinite combination of K and L.

  Input-Output Isoquant:

  This assumes strict complement [that is, zero substitutability] of the factors of production. The isoquant take the shape of a right angle. This type of isoquant is also called 'Leontief isoquant' after Leontief, who invented the input-output analysis.

  Smooth , Convex Isoquant:

  This form assumes continuous substitutability of K and L only over a certain range, beyond which factors cannot substitute each other. The isoquant appears as a smooth curve convex to the origin.

  Long run production function with all variable (Laws of return to scale)

  Return to scale refers to the relationship between changes in output and proportionate changes in all factors of production

  Assumptions

- All factors arevariable
- Workers work with given tools andimplementation
- Technical changes areabsent
- There is perfectcompetition
- Product is measured inquantities.

Increasing Returns to Scale

Increasing returns to scale is closely associated with economies of scale.

It occurs when a firm increases its inputs, and a more-than-proportionate **increase in production results**

For example, in year one a firm employs 200 workers, uses 50 machines, and produces 1,000 products. In year two it employs 400 workers, uses 100 machines (inputs doubled), and produces 2,500 products (output more than doubled).

Decreasing Returns to Scale

Decreasing returns to scale is closely associated with diseconomies of scale. Decreasing returns to scale happens when the firm's output rises proportionately less than its inputs rise.

For example, in year one, a firm employs 200 workers, uses 50 machines, and produces 1,000 products. In year two it employs 400 workers, uses 100 machines (inputs doubled), and produces 1,500 products (output less than doubled).

Constant Returns to Scale

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

Constant or same output.

2. Briefly explain about the types of cost concepts.

- Types of costconcepts

Actual costs and Opportunity Costs

- Actual costs are also called as outlay costs, absolute costs and acquisitioncosts.
- They are those costs that involve financial expenditures at some time and hence are recorded in the books ofaccounts.
- o They are the actual expenses incurred for producing or acquiring a commodity or service by afirm.
- o For example, wages paid to workers, expenses on raw materials, power, fuel and other types ofinputs. They can be exactly calculated and accounted without any difficulty.

Opportunity cost of a good or service is measured in terms of revenue which could have been earned by employing that good or service in some other alternative uses.

Direct costs are those costs which can be specifically attributed to a particular product, a department, or a process of production.

indirect costs are those costs, which are not traceable to any one unit of operation. They cannot be attributed to a product, a department or a process

Explicit costs are those costs which are in the nature of contractual payments and are paid by an entrepreneur to the factors of production [excluding himself] in the form of rent, wages, interest and profits, utility expenses, and payments for raw materials etc.

Implicit or imputed costs are implied cost.They do not take the form of cash outlays and as such do not appear in the books of accounts. They are the earnings of owner employed resources.

Accounting costs are those costs which are already incurred on the production of a particular commodity.It includes only the acquisition costs.

Economic costs are those costs that are to be incurred by an entrepreneur on various alternative programs.

It involves the application of opportunity costs in decision makin

ii). How to estimate the cost?

- accountingconcept
- engineeringconcept
- statisticalcost

3. Explain about cost out put relation in short run &long run with neatsketch.

- Short-run cost curves are normally based on a production function with one variable factor of production that displays first increasing and then decreasing marginal productivity.Increasing marginal productivity is associated with the negatively sloped portion of the marginal cost curve, while decreasing marginal productivity is associated with the positively sloped portion. The average fixed cost (AFC) curve is the cost of the fixed factor of production divided by the quantity of units of the output, while the average variable cost (AVC) curve cost tracesout
- the per unit cost of variable factor of production.The U-shaped average total cost (ATC) curve is derived by adding the average fixed and variable costs. The marginal cost (MC) intersects both the AVC and ATC curves at their minimum points. Declining average total costs are explained as the result of spreading the fixed costs over greater quantities and, at low quantities, the result of the increasing marginal productivity, in addition. Increasing average costs occur when the effect of declining marginal productivity overwhelms the effect of spreading the fixedcosts.

LONG RUN:

- The long-run cost curves, usually presented in a separate diagram, are also expressed most commonly in their average, or per unit, form, represented here in Figure 2. The long-runaverage
- cost (LRAC) curve is shown to be an envelope of the short-run average cost (SRAC) curves, lying everywhere below or tangent to the short-runcurves.

- The firm is constrained in the shortrun in selecting the optimal mix of factors of production and so will never be able to find a cheaper mix than can be found in the long-run when there are no constraints. If there are a discrete number of plant sizes available, the LRAC will be the scalloped curve obtained by joining those parts of the SRAC curves that represent the lowest cost of production for a givenquantity.

4. Explain in detail about Total, Average & MarginalCosts.

The cost conceptsmade use of in the cost behavior are Total cost, Average cost, andMarginal cost.

TC=TFC+TVC

AC=TC/Q

Marginal Cost is the addition to the total cost due to the production of an additional unit of product.

-If both AFC and 'AVC' fall, 'ATC' will also fall.

- 'ATC' will fall where the drop in 'AFC' is more than the raise in'AVC'.
- 'ATC' remains constant is the drop in 'AFC' = rise in'AVC'
- 'ATC' will rise where the drop in 'AFC' is less than the rise in'AVC'

Long Run Costs

The long run is a planning and implementation stage for producers. They analyze the current and projected state of the market in order to make production decisions.

Examples : changing the quantity of production, decreasing or expanding a company, and entering or leaving a market.

Estimation of costs

Accounting approaches

It is classified as fixed, variable and semi variable on the basis of judgment and inspection

Fluctuation in output

Maintenance of proper accounts

Engineering Approaches

It includes the physical units of various inputs as plant size, materials etc.,

Statistical Approaches

It includes

- multiplecorrelations
- Queuing theory
- Input and output analysis

5. Calculate the Total, Average and Marginal Costs for the followingdata.

Output (Q)	TFC	TVC	TC=TFC+TVC	AFC (TFC/Q)	AVC (TVC/Q)	AC (TC/Q)	MC
1	60	20	80	20	60	80	20
2	60	36	96	18	30	48	16
3	60	48	108	16	20	36	12
4	60	64	124	16	15	31	16

UNIT-IV

1) what are the two factors in pricingstrategies?

1) externalfactors

2) internal factors

2) what are the external factors in pricingstrategies?

i. The competition in themarket

ii. The elasticity of supply anddemand

iii. Trends of themarket

iv. purchasing power ofbuyers.

v. government policies towardsprices.

3) what are the two factors in pricingstrategies?

1) Thecosts

2) Management policy towards the gross margin and the salesturnover

4) what are thedeterminants?

1)objectives of business

2)competition

3)product and promotional strategies

4)Nature of price sensitivity

5)influrnce of middle men

6)Routinisation of pricing

7)Government regulation

5) What is objectives of business?

The fundamental objective of a firm is to survive in the business and then thrive.The pricing strategy adopted by a firm is very much by these factors.

6) what is competition in pricingstrategy?

To come out with a pricing policy that will be advantages to the firm,managers require a perfect understanding of the competitive environment in which the firm is placed.

7) what are product and promotionalstrategies?

i. productitself

ii. pricing

iii. promotionactivities

iv. distribution of products through the channel to theconsumer.

8) what is nature of pricesensitivity?

We know that many factors contribute to the increase of price sensitivity,but managers should not ignore the factors that minimize price sensitivity .when designing pricing strategies.

9) what is influence ofmiddlemen?

Middlemen are the ones who stock the finished product of the manufacturer to sell it to the customers.these are also called the channel for distribution.

10) What is routinization ofprice?

This strategy of pricing relies on the tried and trusted pricing strategies which the organization has followed all along. This pricing practice is often routinized but the extend varies from company to company and from product to product.

11) What is the government regulation inpricing?

Inorder to safeguard the interests of the public the government acts on their behalf to prevent the abuse of the monopolistic power and collusion among business.

12) Say some of the objectives of the pricingpolicy?

i. profit maximization.

ii. long term welfare of thefirm.

iii. facingcompetition.

iv. flexibility to economicchanges.

v. satisfying rate ofreturns.

13) What are the cost oriented pricingmethod?

i. cost plus pricing or full costpricing.

ii.marginal cost pricing or incremental or direct cost pricing.

iii.target pricing or ratepricing.

iv. programme pricing.

14) What are the competition oriented pricing method?

i.going rate pricing.

ii.loss reader pricing.

iii.customerypricing.

iv.price leadership pricing.

v.trade association pricing.

vi.cyclical pricing.

vii.imitative pricing.

viii.turnoverpricing.

15) What are the praising basedmethods?

i.administered pricing.

ii.dual pricing.

iii.price discrimination or differential pricing.

16) What are cost oriented pricingmethods?

i) costplus.

ii) marginal costpricing.

iii) targetpricing.

17) What is going rate pricingmethod?

In going rate pricing the emphasis is on the market situation unlike the full cost pricing where the emphasis was on costs.

18) What is leadership pricing method?

The pricing strategy is widely used in retailing buiness. Because the names has the word loss in it this policy may be confused with the pricing which results in losses.

19) What is customary pricingmethod?

In case of some products their prices get more or less. This does not happen due to deliberate action on the seller's part but it happens as the results of the product prevailing in the market for a long period of time.

20) What is price leadershipmethod?

In any industry, out of all the firms operating industry, atleast one firm will have its cost of production lower than all other firms.

21) What is trade association pricing method?

The kind of pricing arises out of an unsaid understanding agreement between the firms operating in the market.

22) What is the cycling pricingmethod?

The pricing method which is done to capitalize on the cycles of the season in nature and the cycle in the economy are known as cyclical pricing.

23) What is imitative pricingmethod?

It is very similar to the loss leader pricing method. This pricing policy is often used in retail business.

24) What is turnover pricingmethod?

Turnover is the word which denotes the sales of the product. The higher the turnover means higher the sales.

25) What is dual pricingmethod?

Usually the firms which produce essential commodities have part of their product under administrating pricing and part of the product is solid in the free market.

26) What isprice?

Price is the source of revenue for the firm and it decides the health of the firm.the customer acceptance or rejection of a product is most of the time predominantly influenced by price.

27) What are the external factors influencing the précisingdecision?

i.theccompetition in the market. ii.the

elasticity of supply and demand.

iii.trends of themarket.

iv.purchasing power of buyers.

v.government policies towards prices.

16 MARKS

1. **Describe the term price discrimination with diagrammaticalrepresentation.**

 Price discrimination occurs when a firm charges a different price from different groups of consumers for an identical good or service, for reasons not associated with costs.

Objectives of Price Discrimination:

 Firms will be able to increase revenue. This will enable some firms to stay in business which otherwise would have made a loss.

 Increased revenues can be used for research and development which benefit consumers

 Some consumers will benefit from lower fares. Eg.old people benefit from lower train companies,old people are more likely to be poor

 The other objective to the consumer of price discrimination are – price discrimination is likely to increase output and make the good or service available to more people and the increased competition in the market leads to lower prices and more choice.

Types of Price Discrimination:

First degree price discrimination:

In first degree price discrimination, price varies by customer's willingness or ability to pay. This arises from the fact that the value of goods is subjective.

Second degree price discrimination:

In second degree price discrimination, price varies according to quantity sold. Larger quantities are available at a lower unit price.

Peak and Off-Peak Pricing:

Peak and off-peak pricing are common in the telecommunications industry, leisure retailing and in the travel sector.

Telephone and electricity companies separate markets by time: There are three rates for telephone calls: a daytime peak rate, and an off peak evening rate and a cheaper weekend rate.

Third degree price discrimination:

In third degree price discrimination, price varies by attributes such as location or by customer segment, or in the most extreme case, by the individual customer's identity.

Disadvantages of Price Discrimination:

1. Some consumers will end up paying higherprices.
2. Those who pay higher prices may not be thepoorest

2. Briefly explain common pricing practices in retail trade

Pricing policies are the decisions by a company determining prices to be charged for its products. There are a number of different pricing policies or strategies which a firm may adopt in order to achieve its pricing objectives.

i. **Skimpricing**:

 It uses high prices to obtain a high profit and quick recovery of the development costs in the early stages of a product‟s life before competition intensities.

ii. **Penetration pricing**:

 Is the use of lower than normal prices to increase market share. It is also used to establish a new product in a market which is expected to have a long-life and potential for growth.

iii. Mixed pricing:

 It is a policy which initially uses skim pricing and then, as competition increases, price cutting, sometimes even below cost, to penetrate the market, increases market share and eliminate competition.

iv. **Destructivepricing**:

 It involves reducing the price of an existing product or selling a new product at an artificially low price in order to destroy competitor‟s sales.

v. **Differential or discrimination pricing**:

 It is the use of different prices for the same product when it is sold in different locations or market segments.

 Whilst small buyers or those located in remote areas may be charged a higher price to cover the additional distribution costs.

vi. Absorption pricing:

 It involves the use of lower than normal prices ether to launch a new product or to periodically boost the sales of existing products.

vii. **Marginal costpricing**:

 It is something used when a firm has some spare capacity which it wishes to use without diverting a way from its regular business. Essentially, a firm incurs fixed costs such as rent, whether or not it is operating at full capacity.

viii. **Negotiablepricing**:

 It is common in industrial markers.

 The price is individually calculated to take account of costs, demand and any specific customer requirement.

ix. **Singlepricing**:

 It involves a policy of charging one price to everyone. Examples include standard bus fares, prices of books etc.

x. **Marketpricing**:

 It is determined by the interaction of demand and supply.

 The seller has little control over the price in this situation which is likely to fluctuate daily.

xi. **Sealed-bid pricing**:

 It is widely used in government, public sector and other private sector markets whereby suppliers are invited to tender(offer a fixed price) for the supply of specified goods or services.

3. **Enumerate in detail about the cost based Pricing Methods inPractice**

- Cost OrientedPricing
- Competition orientedPricing
- Pricing based on other economic economicconditions

Cost Oriented Pricing

1.Full costPricing

P = Direct cost+ Overhead cost+ Profit Margin

2. MarginalCost

It refers to the cost of Producing one more unit or one unit less.

Contribution =Sales- Variable cost

Profit =Contribution + Fixed cost

3. Profit Volume Ratio

$$\text{PV Ratio} = \frac{\text{Contribution}}{\text{Sales}} * 100$$

Advantages

- Easymethod
- Maximizing theprofit'
- Reducescost

Competition oriented Pricing

1. **Going rate Pricing-** general pricing structure of industry andfirm
2. **Loss Leader Pricing**: fixing low price for popularproduct
3. **Customary Pricing** : New model based on customer
4. **Leadership Pricing**: Price lower than otherfirm
5. **Trade Association Pricing**– avoiduncertainty
6. **Cyclic Pricing-** Introduction, Growth, Maturity, Decline
7. **Imitative Pricing-** Imitate the price set byothers
8. **Turnover Pricing-** To make hugeprofit

Pricing based on other economic economic conditions

1. Administrated Pricing-Top levelmanagement
2. Dual Pricing- freemarket

Price Determination in Long Run

Quantity supply & Output are fixed

Avaerage revenue is the straight line**Price Determination in Short Run**

- Firm cannot alter itsassets
- Fixed cost remainconstant
- Increase in Production leads to increase in variablecosts

4. Explain the method of pricing based on strategy.

a.Stay-outPricing:

o When a firm is not certain about the price at which it will be able to sell its product, it starts with a very highprice.

o If at this high price quotation it is not able to sell, it then lowers the price of its product.

o It will keep on lowering the price till it is able to sell the targeted amount of the product.

b. Pricelining:

o Here, price of one product in the total range of the products isfixed.

o Price of rest of the commodities is automatically determined by the relationship between the commodity whose price has been fixed and the rest of the commodities

in therange.

c. Psychological Pricing (or, Odd number and round numberpricing):

o This is not truly a method of pricing but ofprice-tagging.

o Here a firm fixes the price of its product in a manner which gives the impression of being low.

o For example, if the price of a product is fixed at Rs. 89.90 rather than Rs. 90, it may have the psychological impact on consumers that price is in 80s rather than in90s. This may have some impact on sales.

d. LimitPricing:

o A firm (or firms) may also try to establish a price that reduces or eliminates the threat of entry of new firms into the industry. This is called „limitpricing".

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o For limit price to be effective some of collusion is necessary among existingfirms.

e. Resale PriceMaintenance:

o Resale price maintenance is common in cases of popular or brandedproducts.

o The manufacturers of such products fix and stipulate the price of the products at which the product is to be resold by the individualretailer.

o This is done to maintain a uniform selling price of the branded produces at all the outlets of theirsale.

f. Peak-load pricing:

o A firm that uses the same facility to supply many markets at different points of time can increase its profits by the use of peak-loadpricing.

o Peak-load pricing essentially involves charging higher price from consumers wanting to consume the service during the peak demand period and lower price fromthose who consume during off-peak period.

g. Multi-productPricing:

o Pricing that reflects the inter-relationship among multiple products of a firm that are complements or substitute of eachother.

h. Public Utility RateRegulation:

o The method of pricing a service owned and operated by theState.

5. Discuss the determinants of price.

InternalFactors:

i. Organizationalfactors:

Pricing decisions occur on two level in the organization.

Overall price strategy is dealt with by top executives and the actual mechanics of pricing are dealt with the lower levels in the firm.

ii. Marketing mixfactors:

Marketing experts view price as only one of the many important elements of the marketing mix. (product, price, place and promotion). A shift in any one of the elements has an immediate effect on the otherthree.

iii. Productdifferentiation:

Generally, the more differentiated a product is from competitve Offerings, the more leeways a firm has in setting prices.

iv. Costs:

Price are determined solely by costs in that the firm wishes to take its relevant costs that goes in it.

However, in deciding the price of a new product, the firm should think what prices are realistic, considering current demand and competition in the market.

v. Objectives:

The variety of possible pricing objectives was discussed earlier in this chapter. A firm should define its objectives as specifically as possible so that they can be acted upon.

External Factors

i. Demand:

The market of demand for a product or service obviously has a big impact on pricing. Demand in turn in affected by the number and size of competitors.

ii. Competition:

Before a firm cam make pricing decisions. It must have a sense of not on the price of a product.

iii. Suppliers:

Suppliers of raw materials and other goods can have a significant effect on the price of a product.The fluctuations in prices of their supplies to the firm may an impact on the prices of finished goods.

iv. Buyers:

Thevariousbuyersthatbuyafirm‟sproductsandservicemayhavean influence in the pricingdecision.

v. Economic conditions:

Inflation, recession, shortage and stagflation all have an impact on prices in most decision.

vi. Government:

The government keeps a close watch on pricing in the private sector. Regulatory pressure effectively discourages private companies from winning too large a share of the market and controlling prices.

UNIT-V

1) What is balancesheet?

The balance sheet provides the financial position of a company at any given point of time.

2) Say some of the important financialstatements?

i.profit and loss account.

ii.balancesheet.

iv.fund flow statement.

3) What are the contents of a balancesheet?

i.assets

ii.liabilities.

4) Say some of the types ofassets?

i.fixed assets.

ii.investments.

iii.current assets.

iv.loans andadvances.

v.miscallaneous expenditure

5) What is fixedassets?

Their life period is very long, these are purchased for carrying out the operation in a company. Using this the company can generating revenue.

6) What isinvestment?

The long term and short term financial securities owned by a company comes under this category. Here lomg term investments means buying shares of the other companies.

7) What is currentassets?

Any asset that can be converted into cash within one year of time is called as current asset. They would be converted into cash at the end of the operating cycle of a firm.

8) What are the items come under this currentassets?

i.cash.

ii.debtors.

iii.inventories.

9) What is loans andadvances?

It is the amont that a company loans to its employees, advances given to supplies, government contractors and other agencies it is also include prepaid expenses.

10) What are the types ofliabilities?

i.share capital.

ii.resreves and surpluses.

iii.secured loans.

iv.unsecured loans.

v.currentliabilities.

11) What is meant by sharecapital?

It includes both equity share capital and preference share capital. Equity share holders are the owners of a company they take risk and their dividend is not fixed but is case of preference share capital the dividend rate is fixed.

12) What is meant by Reserves andSurpluses?

It is nothing but the profit that is retained by accompany not by not paying it as dividend to the shareholders.

13) What are the types of reserves?

i.revenue reserve.

ii.caapitalreserve.

14) What is meant by securedloans?

Loan amount borrowed by the firm by pledging assets (ie) securities are provided for these loans.

15) What is meant by unsecuredloans?

In this case nosecurity is provided examples are fixed deposits, loans and advances.

16) What is meant by currentliabilities?

This consists of amount that is to the suppliers when goods are purchased on a credit basis, advance payments received accured expenses, provisions for tax.

17) What is meant by incomestatement?

The companies act does not any particular way in which the profit and loss account or the income statement has to be prepared. This statement reflects the performance of a company over a period of time.

18) Who are all the users of financialstatement?

i. management.

ii. shareholders, investors, anlyst.

iii. lenders

iv. suppliers.

v. customers.

vi. employees.

vii. government and regularity agencies.

viii. others

19) What is meant by cash flow statement?

A firm would enter into trouble if it spends more cash than it is able to generate. The firm should generate adequate capital for it survival.

20) How the cash flow of a business can beclassified?

a. operatingactivities

b. investingactivities

c. financingactivities

21)what is meant by ratioanalysis?

It is one of the powerful tool for financial statement analysis. Ratio is nothing but the relationship between two or more items.

22) What are the different ways of carrying outanalysis?

a. pastratio

b. competitorsratio

c. industrialratio

d. projectedratio

23) What is meant by pastratio?

The current financial years ratios can be compared with the previous years ratio to find whether the financial position has improved over the years or not.

24) What is meant by competitorsratio?

The ratio of a company can be compared with the ratio of the competitors and with the market leader.

25) What is meant by industryratio?

The ratios of a firm can be compared with the ratios of the industry to which the particular firm belongs to.

1. What is balance sheet? State the uses and importance and draw the format of abalancesheet?

It is a statement of assets and liabilities of business as on a given date.

Uses and importance:

- Understand the debt equity position
- To know the working capital position
- Cash position of the company
- Debtor's position
- Creditor's position
- Shareholders fund of the company.

Liabilities	Amount	Assets	Amount
Sharecapital	Xxx	Building	Xxx
Debenture	Xxx	Furniture	xxx
Longtermloan	Xxx	Land	Xxx
Creditors	Xxx	Machine	Xxx

BOD	Xxx	Longterminvestment	Xxx
Billspayable	Xxx	Debtors	Xxx
Shorttermloan	Xxx	Shorterminvestment	Xxx
Outstandingexpenses	Xxx	Cashinhand	Xxx
		Cashatbank	Xxx
		Closingstock	Xxx
		Prepaidexpenses	Xxx
Total	xxx	Total	Xxx

2. **What are the different financial ratios?**

Profitabilityratios:

Gross profitratios

Net profit ratio

Operating profit ratio

Operating ratio

Specific expense ratio

Return on investment

Return of equity

Earnings per share

nIterestcovergeratio.

Activityratios:

Debt or turnover ratio

Debt or velocity ratio

Credit or turnover ratio

Credit or velocity ratio

Stock turnoverratio

Stock velocityratio

Working capital turnover ratio

Fixed asset turnover ratio.

Balancesheetratios:

Current ratio

Liquidity ratio

Debt equity ratio

Proprietary ratio

Absolute liquidity

3. **Explain the limitation of financial statements?(Nov2010)**

Limited use of single ratio

Lack adequate standards

nIherent limitations ofaccounting

Change of accounting procedures

Window dressing

Personal bias

Price level changes are not considered

Ignorance of qualitativefactors.

4. Discuss in detail about the Accounting Principles &concepts

AccountingPrinciples:

Principle refers to the fundamental belief (or) a general truth which are established does not change

Accounting concepts

- Business entityconcept
- Money measurement/Enterpriseconcepts
- Going concern/ continuityconcept
- Costconcepts
- Dual aspects ofConcepts
- A/c ing Periodconcepts
- Revenue
- Expenditure
- Realization concept orRevenue
- Objective evidenceconcept
- Accrualconcept

Accounting conventions

- Consistency
- Full disclosure
- Conservation
- Materiality

5. Define Accountimng& State the Objectives and Functions ofAccounting.

Meaning: (American Institute of Certified Public Accountant)

Accounting is the art of recording, classifying and summarizing in a significant manner and in terms of money, transactions and event which are in part at least of a financial character and interrupting the results of there e of.,

Objectives of Accounting:

- ✓ To keep systematicrecords
- ✓ To protect businessProperties
- ✓ To ascertain the operational Profit &Loss
- ✓ To ascertain the financial position ofbusiness
- ✓ To facilitate rational decisionmaking

Functions of Accounting:

Input:

- ✓ Economic events measured in financialterms

Process:

- ✓ Recording

- ✓ Classifying
- ✓ Summarizing
- ✓ Analyzing
- ✓ Interpreting

Output:

Communicating information to users(Legal Requirememnyts)

Need for Accounting:

- ✓ To know the businesstransaction
- ✓ What heowns
- ✓ What heowes
- ✓ Whether he has earned a profit or suffered loss of account of running a business
- ✓ What is his financialposition

UNIT VI

1. **What are the methods of capitialbudgeting ?**Traditional Methods Payback period Accounting rate of return.(or) Average rate of return Discounted cash flow method. Internal rate of return Net present valuemethod.
2. **What is meant by pay back method.**Payback method is based on the period of investment result, of an investment which can give the shortest duration of beneficiary that can be choosen by the capital budgetingdecision.
3. **. What is meant by NPV?** NPV means net present value of any investment.,It is the difference of present value of the future cash inflows and the originalinvestment.
4. **Give the significance of capital budgeting?** They involve substantial capital outlay They affect the future of thebusiness.
5. **Write down the advantages and disadvantages of IRRmethod?**

   Advantages

   Recognize time value of money

   Helps the management in selecting the most profitable project

   Disadvantages

- Complicated to calculate by trial and errormethod
- Assumes that the funds received at the end of each year can be invested at thesame rate of return
- Does not provide weightage of the volume of funds committed in theproject

6. What is the uses of capitalbudgeting?
- investment committee functions andstructure;
- investment philosophy andobjectives;
- attitude to risk and process for managingrisk;
- decision rights; and process for evaluating and managinginvestments

7. Give the formula for calculating Pay BackPeriod.
PBP= initial investment/annual cash inflow

8. What do you mean by capitalbudgeting?
It is concerned with designing and carrying through a systematic investment programmed for acquiring fixed assets like land etc

9. Give the meaning of Internal rate of Return.
The internal rate of return (IRR) is defined as the discount rate that gives a net present

value (NPV) of zero. It is a commonly used measure of investment efficiency.

16 MARKS

4. Explain in detail about the Capital budgeting Process

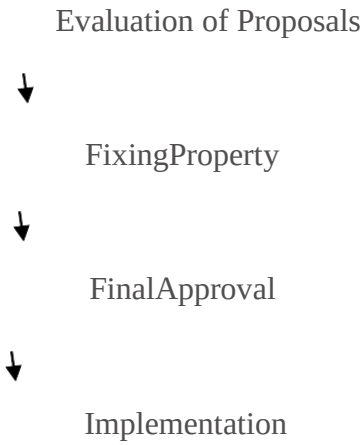
Capital budgeting is a difficult process to the investment ofavailable funds. The benefit will attained only in the near future but, the future is uncertain. However, the following steps followed for capital budgeting, then the process may be easierare.

Identification of Various Investments

↓

Screening or Matching the Available Resources

↓



1.Identification of various investments proposals: The capital budgeting may have various investment proposals. The proposal for the investment opportunities may be defined from the top management or may be even from the lower rank. The heads of various department analyse the various investment decisions, and will select proposals submitted to the planning committee of competentauthority.

2. Screening or matching the proposals: The planning committee will analyse the various proposals and screenings. The selected proposals are considered with the available resources of the concern. Here resources referred as the financial part of the proposal. This reduces the gap between the resources and the investmentcost.

3.Evaluation: After screening, the proposals are evaluated with the help ofvariousmethods, such as pay back period proposal, net discovered present value method, accounting rate of return and risk analysis.

4. Fixing property: After the evolution, the planning committee will predict which proposals will give more profit or economic consideration. If the projects or proposals are not suitable for the concern's financial condition, the projects are rejected without considering other nature of theproposals.

5.Final approval: The planning committee approves the final proposals, with the help of the following:

(a) Profitability,

(b) Economic

(c) Financial

6. Implementing: The competent authority spends the money and implements the proposals. While implementingtheproposals,assign responsibilitiestotheproposals,assignresponsibilitiesforcompletingit, within the time allotted and reduce the cost for this purpose. The network techniquesused suchas PERT and CPM. It helps the management for monitoring and containing the implementation of the proposals.

7. Performance review of feedback: The final stage of capital budgeting is actual results compared with the standardresults. The adverse or unfavourable results identified and removing the various difficulties of the project. This is helpful for the future of theproposals.

5. Enumerate in detaii the Evaluation Of Investment Proposals

Time-adjusted method or discounted methods

(i) Net Present Valuemethod

(ii) Internal Rate of Return method

(iii)Profitability Indexmethod

Pay-back period method

This method represent the period in which total investment in permanent asset pays back itself. It measure the period of time for the original cost of a project to be recovered from the additional earning of a project itself.

Investment are ranked according to the length of the payback period, investment with shorter payback period is preferred.

How the payback period is calculated?

The payback period is ascertained in the following manner

- Calculate annual net earnings(profit) before depreciation and after taxes, these are called annual cash inflow
- Divide the initial outlay(cost) of the project by the annual cash inflow, where the project generates constant annual cashinflow

Payback period = cash outlay of the project or original cost of the asset

Annual cash inflows

- Where the annual cash inflows (profit before depreciation and after taxes) are unequal the payback period is found by adding up the cash inflows until the total is equal to the initial cash outlay of theproject.

Selection criterion

Lesser the pay back period is better for acceptance of the project

Improvement of Traditional Appraoch To Payback Period:

PPPI $= \frac{post\ pay\ back\ profit}{investment} \times 100$

Post payback profitability = Annual cash inflow (estimated life-payback period)

Payback Reciprocal Method

Payback Reciprocal method $= \frac{Annual\ csh\ inflow\ (or)\ Total\ investment}{Cash\ outlay\ of\ project} = \frac{10000}{50000} = 0.2$

Discounted payback period : - (time value of money in consider)

Merits

- ❖ It is a simple method to calculate andunderstand
- ❖ It is a method in terms of years for easier appraisal

Demerits

- ❖ It is a methodrigid
- ❖ It has completely discarded the principle of time value ofmoney
- ❖ It has not given any due weight age to cash inflows after the paybackperiod
- ❖ It has sidelined the profitability of theproject.

Average Rate of Return method(ARR)

This method takes in to account the earnings expected from the investment over their whole life. It is known as accounting rate of return.

The project which gives the higher rate of return is selected when compared to one with lower rate of return.

Selection criterion of the projects:

Highest rate of return of the project only is given appropriate weightage.

The Accounting rate of return can be computed as follows

$$\text{Accounting Rate of Return (ARR)} = \frac{\text{Annual Return}}{\text{Original Investment}} \times 100$$

$$\text{Accounting Rate of Return (ARR)} = \frac{\text{Average Annual Return}}{\text{Average Investment}} \times 100$$

Average annual return= Average profit after depreciation and taxation of the entire life of project i.e. for many number of years

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

$$= \frac{\text{Opening Investment} - \text{Scrap}}{2}$$

.

Merits

- ❖ It is simple method to compute the rate ofreturn
- ❖ Average return is calculated from the total earnings of the enterprise through out the life of thefirm
- ❖ The entire rate of return is being computed on the basis of the available accountingdata

Demerits

- ❖ Under this method, the rate of return is calculated on the basis of profits extracted from the books but not on the basis of cashinflows
- ❖ The time value of money is notconsidered
- ❖ It does not consider the life period of theproject

ONLINE QUESTIONS

UNIT-I

Questions	Opt1	Opt2	Opt3	Opt4	Opt5	Opt6	
Economics are classified into ————————types	Three	Two	Four	One			Tw
Who is called the father of economics	Pigou	Robinson	Adam smith	Hicks			Ad
————————may be defined as that branch of economic analysis which studies the economic behaviour	Macroeconomics	Microeconomics	Business Economics	Managerial Economics			Mi

Micro economics is also known as	Quantity theory	Price theory	Income theory	None			Pri
Macro economics is also known as	Income and employment theory	Price theory	Quantity theory	None			Inc
Demand means	consumer willingness to get a commodity	consumer ability to get a commodity	consumer desire to get a commodity	consumer willingness is backed by ability to get the commodity			Co con
Demand for a commodity always have a reference to _____	product	price	ability	purchase			Pri
Market demand for a product,refers to the _____	particular demand	individual demand	total demand	quantity demand			Tot
_____ is always a basic consideration in demand	income	price	tastes	habits			pri
Consumer's buying behaviour depends on _____	relative price	relative goods	relative commodity	relative taste and preference			rel
Demand for a commodity is also affected by _____	samekind of products	particular products	complementary products	whole products			con
In low market price market demand for the product is_____	low	high	medium	very low			hig
Larger number of _____ will constitute a larger demand	sellers	competitors	producers	buyers			buy
Demand schedule explains purchasing the commodity at _____	same price	higher price	purchasing price	selling price			pur
Demand curve has a _____ slope	positive	negative	positive&negative	normal			neg
The law of demand is usuallly referred as _____	Individual demand	particular demand	market demand	quantity demand			ma
Demand curve indicates _____ relationship between price &demand	Direct	Indirect	inverse	straight line			inv
The law of demand states that when	Income rises demand rises	Price rises demand rises	Price falls demand rises	Price and income rises demand rises			Pri
Certain _____ goods is called as giffen goods	superior	inferior	substitutes	luxurious			inf
Firm's demand is fairly_____	Inelastic	elastic	substitutes	Perfect Inelastic			ela

Elasticity of supply is the degree of change in _____ of goods	Quantity	price	quality	change			pri
The relationship between the price &quantity is _____	Direct	normal	inverse	minimum			inv
A_____ rise in price results big extension of supply	high	normal	small	verysmall			sm
Supply depends on _____	usefulness	willingness	scarcity	market demand			sca
Supply is defined as goods for_____	purchase	sale	price	product			sal
Large quantities are supplied at _____ prices	low	high	normal	very high			hig
Supply in a market depends on the number of _____	producers	firms	sellers	marketers			firm
Supply depends upon suitable factors of _____	sales	consumption	production	market quantity			pro
sellers sells the commodity on the basis of _____	product	price	sales	consumption			pri
In lower prices the supply will be _____	complementary	constant	contracting	falling			con
Supply is govern by _____ factors	elastic	inelastic	perfectly elastic	imperfect elastic			ine
Supply curve is vertical to Y axis ,elasticity of supply is _____	zero	>1	<1	=1			zer
The change in demand for a commodity as a result of change in price of related goods is called as_____	Price demand	Income Demand	Cross demand	Elasticity of demand			Cro
The relationship between the price and the quantity demanded of a commodity is	Income Demand	Price demand	Elasticity of demand	Cross demand			Pri
When the price rises, the demand also increases for certain goods and this phenomenon is called as	Giffen Paradox	Veblen effect	Marshall Paradox	Adams Paradox			Gif
If the price of petrol falls , the demand for cars	Increases	Decreases	Does not affect	None of the above			Inc
The degree of responsiveness of quantity demanded of a commodity to the change in price is called	Elasticity of demand	Elasticity of supply	Demand	Forecasting			Ela
when a change in price produces no change in the	Perfectly elastic demand	Perfectly inelastic	Relatively more elastic demand	Relatively inelastic			Per

quantity demanded it is called as		demand		demand			
when a small change in price causes a greater change in quantity demanded it is called as	Relatively inelastic demand	Relatively more elastic demand	Perfectly elastic demand	Perfectly inelastic demand			Rel
_____ is a prediction or estimation of future situation	Forecast	Elasticity of demand	Elasticity of supply	Market mechanism			For
Demand forecasting is broadly classified in to_____ types	two	three	four	five			Tw
The opinion polling methods of demand forecasting are of _____kinds	three	two	four	five			thr
_____ is the direct method of estimating demand in the short run	Consumer's Survey Method	Sales Force Opinion Method	Experts Opinion Method	Statistical Method			Co
_____also known as collective opinion method	Sales Force Opinion Method	Experts Opinion Method	Consumer's Survey Method	Graphical Method			Sal
Experts opinion method is also known as	Graphical Technique	Delphi Technique	Trend Projection Technique	Barometric Technique			Del
Which is the most simple technique to determine the trend	Barometric method	Graphical method	Least square method	Delphi Method			Gra
_____are based on the idea that certain events of the present can be used to predict the directions of change in the future	Leading Series Techniques	Concurrent Series Techniques	Barometric techniques	Lagging Series Techniques			Bar
_____attempts to assess the relationship between at least two variables	Regression Analysis	Lagging Series Techniques	Leading Series Techniques	Concurrent Series Techniques			Reg
_____refers to the relation between the price and quantity supplied	Supply	Elasticity of supply	Demand	Elasticity of Demand			Sup
_____refers to the supply of an individual producer	Individual demand	Individual supply	market demand	Market Supply			Ind
When the coefficient of supply elasticity is =α it is	Perfectly Inelastic	Perfectly elastic	Relatively inelastic	Unitary elastic			Per
When the price of coffee increases the demand for tea	Increases	Decreases	None	Does not changes			Inc
If the demand curve is parallel to X axis	Perfectly elastic demand	Perfectly inelastic demand	Relatively inelastic	Unitary elastic			Per
If the demand curve is	Perfectly	Relatively	Perfectly elastic	Unitary			Per

vertical to X axis	inelastic demand	elastic demand	demand	elastic			
When the coefficient of supply elasticity is > 1 it is	Relatively elastic	Perfectly inelastic	Relatively inelastic	Perfectly elastic			Rel
When the coefficient of supply elasticity is < 1 it is	Unitary elastic	Perfectly inelastic	Perfectly elastic	Relatively inelastic			Rel
In market mechanism _____ would be automatically channalised	time	resource	money	Economy			Res
When the coefficient of supply elasticity is =0 it is	Relatively elastic	Perfectly elastic	Perfectly inelastic	Relatively inelastic			Per
When the coefficient of supply elasticity is = 1 it is	Perfectly elastic	Relatively inelastic	Perfectly inelastic	Unitary elastic			Un
A _____ is a mechanism by which buyers & sellers interact to determine the price & quantity of a good or service.	Market	Demand	Supply	Forecasting			Ma

UNIT-II

Questions	Opt1	Opt2	Opt3	Opt4	Opt 5	Opt 6	Answer
_____refers to the efficient and effective management of money	Financial Management	HR Management	Production management	Cost Management			Financial Management
The primary objective of financial management is _____	Profit maximization	Wealth maximization	Risk Maximization	Both (a) & (b)			Both (a) & (b)
Moblization means	Collection of finance	Estimation of finance	Utilization of finance	Maximization of finance			Collection of finance
_____ helps for identifying the rate of dividends	Retained profits	Dividend declaration	Investment of funds	Financial controls			Dividend declaration
Finance manager has to make decisions with regards to _____	Cash management.	HR Management	Production management	Risk Managemnt			Cash management.
_____represent a formal record of the financial activities of an entity.	Estimation of finance	Financial Statements	Collection of finance	Maximization of finance			Financial Statements

Statement of Financial Position, also known as _____	Profit and Loss Statement	Income statement	Balance Sheet	Fund Flow Statement			Balance Sheet
Something a business owns is called as _____	Liability	Equity	Assets	Expense			Assets
Income Statement, also known as the	Balance Sheet	Profit and Loss Statement	Cash Flow Statement	Fund Flow Statement			Profit and Loss Statement
_____represents the cash flow from primary activities of a business	Estimating activities	Investing Activities	Operating Activities	Regulating activities			Operating Activities
Statement of Changes in Equity, also known as the	Statement of Retained Earnings	Statement of Financial Position	Income Statement	Cash Flow Statement			Statement of Retained Earnings
_____involves the relationship between a firm's short-term assets and its short-term liabilities.	Financial Management	Working capital management	Risk Management	Cost Management			Working capital management
_____is the life blood and nerve center of business	Finacial statements	Capital Budgeting	Dividend policy	Working capital			Working capital
_____helps to operate the business smoothly without any financial problem	Retained profits	Working capital	Dividend declaration	Financial controls			Working capital
Manufacturing industries and trading organizations need _____ amount of working capital	Less	Average	More	Equal			More
A _____sector does not require any amount of stock of goods	Service	Manufacturing	Retail	Wholesale			Service
In service enterprises, the credit transactions will be _____	Average	Less	More	Zero			Less
The _____ of a firm also affects the firm's need of working capital	Dividend Policy	Changes In Price Level	Operating efficiency	Potential Growth			Operating efficiency
Depreciation means _____ value of an asset	Increased	Residual	Actual	Net			Residual
_____ focus on all the financial activities of an organisation	Production	Marketing	Personnel	Finance			Finance
Various sources from which finance may be raised include,	Share capital	Debenture capital	Public deposits	All the above			All the above

_____is the measuring techniques to understand the business efficiency of the concern.	Profit	Dividend	Interest on debentures	Returns			Profit
_____is also the traditional and narrow approach, which aims to, maximizes the profit of the concern.	Wealth Maximization	Profit maximization	Production policy	Business cycle			Profit maximization
_____is one of the modern approaches, which involves latest innovations and improvements in the field of the business concern	Capital Structure	Financial Position	Wealth maximization	Increase in sales			Wealth maximization
Wealth maximization is also known as _____	profit maximization	Production maximization	Sales maximization	Value maximization			Value maximization
Wealth maximization is superior to _____	Equity	profit maximization	Interest on capital	Increase in dividend			profit maximization
A _____is an official document of the firm	Financial statement	Income statement	Cash Flow Statement	Fund Flow Statement			Financial statement
Longterm financial requirement is also called as _____	Variable capital requirements	Fixed capital requirements	Marginal capital requirements	Total capital requirements			Fixed capital requirements
Payment of wages, day to day expenses is a type of _____ financial requirement	Short term	Long term	Medium term	None of the above			Short term
_____ is a document issued by the company as an acknowledgement of debt	Income statement	cash flow statement	Debenture	Fund Flow Statement			Debenture
Amount of Working Capital depends upon the length of _____	Business cycle	Production policy	Sales cycle	production cycle			production cycle
Working Capital requirements depend upon the _____of the business	Income statement	operating cycle	Dividend policy	Capital structure			operating cycle
The main objective of the Working Capital Management is managing the _____	Current Assets	Current Liabilities	Both (a) & (b)	Equity			Both (a) & (b)

_____expresses the relationship between the Sales and Working Capital.	Percent of sales method	Estimation of components of working capital method	Operating cycle method	Dividend Policy method			Percent of sales method
In the booming conditions, the Working Capital requirement will be _____	Less	Medium	More	Very low			More
The purpose of capital budgeting_____ ____	long term implication	purchase	sales	innovation			long term implication
Capital budgeting decision involves the funds for the _____	short term	long term	constant years	two years			long term
The long-term commitment of funds leads to the _____ risk.	managerial	purchase	financial	sales			financial
The present value of benefits less the present value of _____	profit	cost	sales	purchase			cost
The capital budgeting methods_____	innovation	depreciation	net present value	sinking fund			net present value
ARR means_____	asset return rate	accounting rate of return	appreciation rate of return	accumulation rate of return			accounting rate of return
The validity of the planners assumptions about the social conditions are tested through_____	Social Analysis	Environmental Analysis	Financial Analysis	Economic Analysis			Social Analysis
_____decision affects the company's future cost structure over a long time span.	revenue	capital expenditure	profit	loss			capital expenditure
Capital investment decision are not easily reversible without much financial _____to the firm.	profit	cost	loss	purchase			loss
_____is the effort of calculating a project's viability	net present value	present value	average rate of return	project appraisal			project appraisal
_____is used in investment appraisal	NPV	PV	ARR	IRR			ARR
Payback period is usually expressed in _____	month	year	percentage	fraction			year
Internal rate of return is used to evaluate the attractiveness of a _____	project	cost	depreciation	assets			project

Develop and formulate long-term strategic goals is used _____	asset return rate	capital expenditure	capital budgeting	net present value			capital budgeting
Select the project with a positive NPV for independent _____	capital assets	stock	liability	depreciation			capital assets
The length of time required to recover the cost of an _____	net present value	present value	investment	depreciation			investment
_____ divides the average profit by the initial investment in order to get the ratio	resources	rate of return	profit	loss			rate of return
_____is the interest rate at which the net present value of all the cash flows	Internal rate of return	average rate of return	depreciation	project appraisal			Internal rate of return
Internal rate of return is called as _____	net present value	present value	effective rate of return	project appraisal			effective rate of return
IRR calculations are commonly used to evaluate the desirability of _____	revenue	investment	capital budgeting	assets			investment
Profitability and risk of the projects are given high priority_____	NPV	PV	ARR	IRR			NPV
Net present value difficult to calculate the appropriate _____	depreciation	discount rate	interest rate	taxation			discount rate
_____measures the present value of benefits for every dollar investment	average rate return	discount rate	Profitability index	average index			Profitability index
_____ is the result of a detailed examination of a proposed idea, project	feasibility report	rate of return	depreciation	assets value			feasibility report
Operational feasibility is a measure of how well a proposed system solves the _____	interest	problems	dividend value	taxation value			problems
_____ascertains the exact rate of return of the project.	profitability index	rate of return	capital budgeting	internal rate of return			profitability index
The internal rate of return on an investment_____	rate of return	feasibility report	discount rate	average index			rate of return

UNIT-III

Questions	Opt1	Opt2	Opt3	Opt4	Opt5	Opt6	Answer
A stock exchange is a form of exchange which provides services for	stock brokers	Stock man	Employees	Investors			stock brokers

_____							
Stock exchanges also provide facilities for issue and redemption of securities and other financial instruments, and capital events including the payment of income and _____.	Shares	Expenses	Sales	dividends			dividends
The initial public offering of stocks and bonds to investors is by definition done in the _____	Advertisement	Secondary market	primary market	market			primary market
A stock exchange is a reliable barometer to measure the economic condition of a _____	money	shares	people	country			country
The rise or fall in the share prices indicates the boom or recession cycle of the _____	market	economy	shares	value			economy
The stock market helps to value the securities on the basis of demand and _____ factors	supply	money	value	demand			supply
The valuation of securities is useful for investors, government and _____	creditors	stock keeper	share holders	Debtors			creditors
The companies which are listed they also have to operate within the strict rules and _____	values	regulations	capital	Laws			regulations
In stock exchange securities of various companies are bought and _____	distribute	deliver	sold	purchase			sold
Stock exchange encourages people to invest in ownership securities by regulating _____	Investment	new issues	capital	Security			new issues
The main function of stock market is to provide ready market for sale and purchase of _____	Debit	Credit	Securities	Cash			Securities
Listing means admission of	stock brokers	capital	Securities	stock			stock

securities to dealings on a recognized _____				exchange			exchange
BSE has set various guidelines and forms that need to be adhered to and submitted by the _____	companies	Schools	Colleges	university			companies.
SBI stands for _____	Securities and Exchange Board of India	Securities and Exchange Board of Index	Securities Export board of India	stock exchange			Securities and Exchange Board of India Act
An index number expresses the average of all such diverse items in _____units	even	odd	different	Same			different
SEBI was primarily set up to regulate the activities of the _____	merchant banks	Indian Bank	Axis Bank	State Bank			merchant banks
Money can be thought of as any good that is widely used or accepted in the transfer of _____.	market and value	goods and services	profit	Sales			goods and services
Money serves multiple functions in an _____	economy	employee	Company	National			economy
In most countries, money is supplied by the _____	central bank	Private Bank	State Bank	National Bank			central bank
Banks are institutions that effectively buy and sell _____	shares	money	Coins	goods			money
fiscal policy is conducted by a nation's _____	country	government	State	central			government
monetary policy is handled by a country's _____	Commercial Bank	central bank	State Bank	private bank			central bank
Inflation is defined as a sustained increase in the general level of prices for _____	Deliver goods	goods and services	Profit	Sales			goods and services
CPI stands for _____-	credit pull inflation	Cash point inter	Credit price index	Consumer Price Index			Consumer Price Index
A general decline in prices, often caused by a reduction in the supply of _____	Producer Price Income	Point Price Indexes	Power Price Indexes	Producer Price Indexes			Producer Price Indexes

If demand for a product decreases and supply remains the same, then the price _____	money	goods and services	Profit	Income			money
Wage earners and salaried persons gain during _____	Medium	Normal	decreases	Increases			decreases
The consumers generally gain due to falling prices because the purchasing power of their money _____	inflation	deflation	primary market	New investment			deflation
During deflation, the prices fall and the value of money _____	Standard	rises	Fall	decreases			rises
The main functions of commercial banks are accepting _____ from the public and advancing them loans	rises	Fall	decreases	Down			rises
The most important function of commercial banks is to accept deposits from the _____	cash	deposits	credits	loans			deposits
The depositors of such deposits can withdraw and deposit money when¬ever they _____	public	employee	traders	foreigners			public
This period is generally not less than one year and, therefore, these are called as_____	desire	change	exchange	Wealth			desire
Saving deposits the rate of interest is very _____	maximum period	medium term deposits	long term deposits	short term deposits			long term deposits
Saving deposits are generally done by salaried people and the people who have fixed and less _____	big	medium	high	less			less
The second important function of commercial banks is to advance loans to its _____	wages	loss	income	expenses			income
Modern banks give mostly secured loans for _____ purposes	exporters	importers	customers	traders			customers
The value of security or collateral is equal to the amount of _____	productive	loan	manufacturing	trading			productive

Banks enter into an agreement with its customers to which money can be withdrawn many times during a _____	salary	money	expenses	loan			loan
These are such loans that can be recalled on demand by the _____	5 days	week	year	month			year
Discounting of Bills of Exchange is the most prevalent and important method of advancing loans to the traders for _____	share holders	banks	mutual fund	market			banks
Banks collect cheques, drafts, bills of exchange and dividends of the shares for their _____	low-term purposes	short-term purposes	medium-term purposes	long-term purposes			short-term purposes
Banks make payment for their clients and at times accept the _____	traders	customers	investors	dealers			customers
Banks purchase and sell securities, shares and debentures on behalf of their _____	values	money exchange	bills of exchange	bills of traders			bills of exchange
Banks arrange to send money from one place to another for the convenience of their _____.	share holders	employees	customers	investors			customers
Banks make arrangement of lockers for the safe custody of valuable assets of their customers such as _____	employees	share holders	inestors	customers			customers
Banks issue letters of _____	gold	pen	check	materials			gold
During natural calamities, banks are highly useful in mobilizing funds and _____	money	shares	credit	debit			credit
Note issue primarily is the main function of a _____ in every country	coins	donations	cloth	foods			donations
Central bank controls the credit creating power of _____	icici bank	central bank	state bank	commercial bank			central bank
People have more confidence in the currency issued by the control bank	commercial bank	axis bank	icici bank	State Bank			commercial bank

because it has the protection and recognition of the _____							
In the event of monopoly of note issue of central bank, there will be uniformity in the currency system in the _____	government	public bank	public companies	private bank			government
If the central bank of the country has the monopoly of note issue, all such advantages will accrue to the _____	national	country	village	state			country
Central bank is the bank of _____	investors	government	bankers	country			government
Central bank is the custodian of the foreign currency obtained from various _____	traders	banks	manufacturing	king			banks
All commercial bank have their accounts with the _____	countries	Expenses	incomes	departments			countries
The central bank has acquired the rights and powers of controlling the entire _____	local banks	central bank	commercial bank	State Bank			central bank
Central banks in almost all the countries collects _____ data	enquiring	banking	importing	trading			banking
Traders and businessmen deposit their savings in the banks for the convenience of _____.	system	manual	statistical	random			statistical
Like the private sector units, the public sector enterprises also suffer losses during deflation when the prices _____	debit	payment	loans	expenses			payment

UNIT-IV

Questions	**Opt1**	**Opt2**	**Opt3**	**Opt4**	**Opt5**
Nationl Expenditure is equal to _____	National income	National income + National savings	National income - Taxes	National income + Taxes	
National Income is _____	National expenditure - indirect taxes	GNP - NNP	NNP - indirect taxes	PI	
here are methods of measuring national income_____	1	2	3	4	

If we compare GDP and GNP, then_____	GDP - net income from abroad	GDP + net income from abroad	NNP - net income from abroad	NNP + net income from abroad	
national income is deducted from GNP to get NNP_____	Indirect taxes	Depreciation	Direct taxes	Transfer payment	
It is added to GDP to get GNP_____	Depreciation allowance	Direct taxes	Subsidies	Net income from abroad	
Which is the largest figure_____	NNP	GNP	DPI	PI	
To avoid double counting when GDP is estimated, economists_____	Use GDP deflator	Calculte value added at each stage of production	Use price of only intermediate goo	Use retail prices	
A TV set purchased from a retail store is an example of_____	Intermediate good	Capital good	Surplus good	Final good	
Total value of all final goods and services produced in a country during one year is_____	NNP	GNP	GDP	NI	
An economic system is a system of production and exchange of _____	Goods and Services	Money	Product	Quality	
Economic liberalization is the lessening of government _____	Quality and control	regulations and restrictions	law	measurement	
_____ is the buying of all outstanding shares of a publicly traded company by a single entity, making the company privately owned.	Liberlization	Economic System	Privatization	Globalization	
Privatization is a demutualization of a mutual organization or cooperative to form a _____	Entrepreneurship	Equity	Partnership	joint-stock company.	
Choice of sale method is influenced by the_____	Company	Strategy	capital market	Market Mechanism	
What are the Examples of privatization _____	Employee	Court	Eletricity	bridges and airports	
The government sells the entire public sector unit to _____	Public Sector	private sector	Labour	Employee	
MNE means_____	multinational effect	multinational energy	multinational enterprise	multinational entrepreneur	
Economic _____is the increasing economic integration and interdependence of national level.	Products	Business	globalization	Privatization	
Multinational corporations looking for most efficient, _____cost producers	No	Low	medium	High	
IMF means _____	International Mixing Fund	International Monetary Fund	India Monetary Fund	International Money Fund	
_____develops a global web of suppliers as a source	MMM	MNC	IFM	MMT	

of competitive advantage					
_____ causes unemployment in industrialized countries because firms move their factories to places where they can get cheaper workers.	Government	Economy	Globalization	Privatization	
Globalization can lead to financial _____	market	problems	cost	Transactions	
International trade is the exchange of _____,_____&_____ across international borders or territories	product,policy&value	capital, goods, and services	market,value & price	Quantity,Demand & supply	
The buying and selling of goods and services across national borders is known as _____	state trade	international trade	National trade	Local trade	
WTO stands for_____	Web Trade Organization	World Trade Organization	World Trade Orphan	World Transfer Organization	
_____ rights are the rights given to persons over the creations of their minds	Workman	Sales	Intellectual property	Property	
The rights of authors of literary and artistic works (such as books and other writings, musical compositions, paintings, sculpture, computer programs and films) are protected by _____	Reading	copyright	Salesright	Valuerights	
_____ is the right for a limited period to stop others making, using or selling an invention without permission.	state trade	patent	copyright	Property	
A patent gives the legal right to stop others using your _____	invention	Development	Building	Creativity	
_____ is a step by step process that businesses use to determine the merits of an investment project	Investment	Capital	Capital budgeting	Capital Market	
Capital budgeting is important because it creates _____	intension	accountability and measurability	Capital	Quality	
There are multiple components to _____	economic systems	economic growth	economic transaction	economic value	
Thus, every economy is a system that allocates resources for exchange, production, distribution and _____	values	growth	payments	consumption	
There are several basic questions that must be answered in order for an economy to run _____	satisfactorily	calculation	measurable	Low satisfication	
_____ sector help to raise the rate of savings and Investment in India	Fiscal	political	monitory	money	
BOP stands for_____	Balance of purchase	Balance of	Balance of	Balance of	

		payment	palacement	payroll	
FDI stands for _____	Foreign Do Investment	Foreign Direct Incident	Foreign Direct Income	Foreign Direct Investment	
Share issue privatization (SIP) - selling shares on the _____	Banks	stock market	market place	mutual fund	
Economic analysis arises out of the fact that (HLGs) operate within limited)_____	resources	innovation	depreciation	net present value	
Management of renewable natural resources_____	machinery	plants and animals	sail	forest	
The social conditions are tested through _____.	economic analysis	Environmental Analysis	social analysis	political analysis	
Intellectual Property Rights (IPR) protect the use of information and ideas that are of_____	Ethical value	Moral value	Social value	Commercial value	
The term 'Intellectual Property Rights' covers_____	Copyrights	Know-how	Trade dress	All of the above	
The following can not be exploited by assigning or by licensing the rights to others_____	Patents	Designs	Trademark	copyrights	
The following can be patented_____	Machine	Process	Composition of matter	All of the above	
Symbol of Maharaja of Air India is_____	Copyright	Patent	Trademark	pictures	
The agreement that is enforceable by law is known as_____	Valid agreement	Void agreement	Illegal agreement	Unenforceable agreement	
Government can make globalisation more 'fair' b_____	increasing competition	increasing employment	implementing the labour laws	imposing trade barriers	
Fair globalisation would mean_____	fair opportunities for all	fair benefits for all	more support to small producers	all of the above	
Globalisation opportunities for paid work for women has denied them_____	good health	good education	permanent job	wealth	
Globalisation has posed major challenges for_____	big producers	small producers	rural poor	metro persons	
Globalisation has created new opportunities of_____	employment	emerging multinationals	providing services	all of the above	
Removing barriers or restrictions set by the government is called_____	liberalisation	investment	favourable trade	free trade	
Where do MNCs choose to set up production_____	Cheap goods	Cheap labour resources	Economic sustainability	Illegal agreement	
Globalisation has led to higher standards of living of_____	well-off consumers	poor consumers	big producers	small producers	
An economy is at the take off stage	becomes stagnant	begins steady	is liberalized	gets maximum	

on its path to development when it_____		growth		foreign aid	
Which of the following is the basic characteristic of Oligopoly?	a few sellers, one buyer	a few sellers, many buyers	a few sellers, a few buyers	many sellers, a few buyers	
In Indian economy, the principal means of transportation is_____	airways	railways	waterways	roadways	

UNIT-V

Questions	Opt1	Opt2	Opt3	Opt4	Opt5	Opt6	Answer
The monetary value of an _____decreases over time due to use	asset	liability	share capital	debenture			asset
Depreciation_____ in an asset's value	increase	decrease	total cost	marginal cost			decrease
estimation of property value for _____purposes	insurance	taxation	bank loan	expenditure			taxation
some examples of assets that are likely to depreciate over a specific period of time_____	machinery	stock	debtors	bills payable			machinery
depreciation reduction in the book value of the _____ asset.	current asset	current liablity	fixed assets	liability			fixed assets
Any asset will gradually break down over a certain usage period is called_____	Perish ability	Usage rights	Wear and tear.	Natural resource usage			Wear and tear.
The main object of providing depreciation is_____	To calculate true profit	To show true financial position	To reduce tax.	To provide funds for replacement			To calculate true profit
Depreciation arises because of_____	decrease value of an asst	Physical wear and tear	decrease value of money	cost of capital			Physical wear and tear
Some assets have an extremely short life span_____	Perish ability	Usage rights	Wear and tear.	Natural resource usage			Perish ability
Depreciation is a process of:_____	Valuation	Allocation	Both valuation and allocation	cost control			Valuation
Under the straight line method of providing depreciation it_____	Increase every year	Remain constant every year	Decreases every year	variation			Remain constant every year
Under the diminishing balance method depreciation it_____	Increases every year	Decreases every year	Remain constant every year.	variation			Decreases every year

Under the fixed installment method of providing depreciation it is calculated on_____	Original cost	on balance amount	On scrap value	cost price			Original cost
Process of becoming out of date or obsolete is termed as_____	Physical deterioration	Depletion	Obsolescence	Amortization			Obsolescence
Which of the term is used to write off in reference to tangible fixed assets_____	Depreciation	Depletion	Amortization	Both (b) and (c)			Depreciation
The economic factors causing depreciation_____	Time factor	Obsolescence and inadequacy	Wear and tear	Money valuation			Obsolescence and inadequacy
Total depreciation cannot exceeds its_____	Scrap value	Cost value	Market value	Depreciable value			Depreciable value
Depreciation value of an asset is equal to_____	Cost + Scrap value	Cost + Market price	Cost – Scrap value	cost of capital			Cost – Scrap value
Depreciation does not depend on fluctuations as_____	Market value of asset	Cost of price of asset	Scrap value of asset	return value of asset			Market value of asset
Depreciation is_____	An income	An asset	A loss	A liability			A loss
The books value of an asset is obtained by deducting depreciation from its_____	Market value	Scrap value	Market + Cost price	Cost			Cost
Depreciation fund method is also known as_____	Sinking fund method	Annuity method	Sum of years digits method	Revaluation method			Sinking fund method
The method is specially suited to natural resources (mines, quarries) is said to be_____	Annuity method	Depletion method	Revaluation method	Sum of digits method			Depletion method
In the provision method of depreciation the asset always appears at_____	Cost price	Market Price	Scrap Value	cost of capital			Cost price
Under revaluation method of depreciation, the assets are revalued _____ year.	one	two	every	ten years once			every
Insurance policy method is a slight modification of the _____	sinking fund method	Revaluation method	Output method	Annuity method			sinking fund method
Residual Value also known as_____	book value	scrap value	Market value	cost value			scrap value
Cost is the initial acquisition is	revenue	cost of capital	capital expenditure	assets			capital expenditure

called_____							
Depreciation is a _____and continuous reduction in the book value of the fixed asset.	yearly once	temporary	perminant	two year			perminant
Appreciation which_____ in the value of an asset over a period of time.	decrease	constant	increase	no change			increase
Break-even analysis is a technique widely used by _____	purchase	sales	production management	recruitment			production management
The point at which neither profit nor loss is made is known as_____	profit	loss	break even point	sales			break even point
Total variable and fixed costs are compared with _____	sales revenue	production revenue	tunover	break even point			production revenue
_____are those business costs that are not directly related to the level of production	variabe cost	fixed cost	marginal cost	semi variable cost			fixed cost
Variable costs are those costs which vary directly with the level of _____	input	production revenue	Output	loss			Output
_____variable costs are those which can be directly attributable to the production of a particular product	fixed cost	variable cost	marginal cost	cost of capital			fixed cost
some examples of fixed cost_____	rent	direct labour	direct material	production cost			rent
_____are those which can be directly attributable to the production of a particular product	indirect variable cost	direct variable cost	variable cost	marginal cost			direct variable cost
some examples of direct variable cost_____	salary	rent	Raw materials	purchase			Raw materials
The distinction between fixed and variable costs is called _____	variable cost	fixed cost	direct cost	semi variable cost			semi variable cost
A firm using _____determines the smallest output level that leads to zero economic profit.	profit	loss	break even analysis	cost of production			break even analysis
breakeven analysis is a useful _____ tool	managerial	production	puchase	sales			managerial

_____shows the extent of profit or loss to the firm at different levels of activity.	diagram	graph	break even chart	process chart			break even chart
_____variable costs leads to a reduction in the contribution margin.	decrease	increase	constant	variable			increase