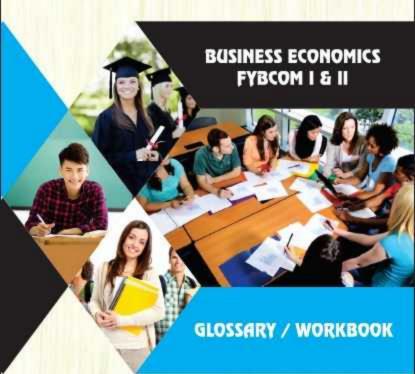


Sadhana Education Society

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BUSINESS ECONOMICS I GLOSSARY

FYBCOM SEMESTER I

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MODULE 1

1) Business Economics

Business economics is a field in applied economics which uses economic theory and quantitative methods to analyse business enterprises and the factors contributing to the diversity of organizational structures and the relationships of firms with labour, capital and product markets.

2) Opportunity Cost

The Opportunity cost is the next best alternative that you have sacrificed. The opportunity lost is nothing but opportunity cost.

3) Variables

A variable is magnitude of interest that can be measured. Variables can be endogenous and exogenous variables. Variables can be independent and dependent.

4) Functions

Functions shows the relationship between two or more variables. It indicates how the value of one variable depends on the value of another one.

5) Equations

An equation specifies the relationship between the dependent and independent variables. Each equation is a concise statement of a particular relation.

6) Graphs

Graphs are geometric tools used to express the relationship between variables. A graph is a diagram showing how two or more sets of data or variables are related to one another.

7) Curves

The functional relationship between the variables specified in the form of equations can be shown by drawing lines in the graph. Depending upon the relationship between the variables the line can have positive and negative slope. The line only suggest but does not prove the underlying relationship between the variables. The line is called as curve in economics.

8) Slopes

Slopes shows how fast or at what rate, the dependant variable is changing in response to a change in the independent variable. If the line is straight then its slope is constant everywhere. On curve lines slope changes at different point.

9) Demand

The demand in economics implies the desires to purchase the commodity which is backed by the ability and willingness to pay for it.

10) Supply

Supply is the amount of a product per unit of time that producers are willing to sell at various given prices when all other factors are held constant.

11) Market Demand

When we sum up the demand of all the consumers for the product we get market demand.

12) Market Supply

When we sum up the supply of all the producers of the products we get market supply.

MODULE 2

1) Demand function

Demand function is an arithmetic expression that shows the functional relationship between the demand for a commodity and the various factors affecting it. This includes the income of a consumer and the price of a commodity along with other various determining factors affecting demand. The demand for a commodity is the dependent variable, while its determinant factors are the independent variables.

 $Q_x = f(P_x, Y, P_y, T, A)$

Where.

 (Q_x) = Quantity demanded of commodity X.

 P_x = Price of commodity X.

Y= income of a consumer.

 P_v = Price of related commodities.

T= Taste and Preference of and individual consumer.

A= Adverting expenditure made by producer.

2) The law of demand

The law of demand states that other thing being equal the price and the quantity demanded of a commodity are inversely related to each other. Higher is the price lower will be the demand and vice versa.

3) Elasticity of demand

Elasticity of demand helps us to estimate the level of change in demand with respect to a change in any of the determinants of demand. The concept of elasticity of demand helps the firm or manager in decision making with respect to pricing, promotion and production polices. The concept of elasticity of demand therefore refers to the degree of responsiveness of quantity demanded of a good to the change in its one of the determinant.

4) Price Elasticity of Demand

Price elasticity of demand shows the degree of responsiveness of quantity demanded of a Commodity to the change in its price. In other words, price elasticity of demand is defined as the ratio the percentage change in quantity demanded of a commodity to a percentage change in price of the commodity. Thus,

$$Price \ Elasticity \ of \ Demand = \frac{Percentage \ change \ in \ quantity \ demanded}{Percentage \ change \ in \ price}$$

5) Perfectly elastic demand $(E_p = \infty)$

The demand is said to be perfectly elastic, if slight change in price leads to infinite change in the quantity demanded of the commodity. The demand curve under this situation is horizontal straight line parallel to X axis.

6) Perfectly inelastic demand ($E_p = 0$)

The demand is said to be perfectly inelastic, if the demand for a commodity does not change with a change in price of the commodity. The elasticity of demand will be equal to zero. The demand curve is vertical straight line parallel to Y-axis.

7) Unitary elastic demand $(E_p = 1)$

Demand is said to be unitary elastic when the percentage change in the quantity demanded for a commodity is equal to the percentage change in its price. The numerical value of unitary elastic of demand is exactly equal to one. The demand curve is rectangular hyperbola.

8) Relatively Elastic demand $(E_p > 1)$

Demand is said to be relatively elastic, when the percentage change in quantity demanded of a commodity is greater than the percentage change in its price. In other words, it refers to a

situation in which a small change in price leads to a great change in quantity demanded. The demand curve under this situation is flatter.

9) Relatively Inelastic demand ($E_p < 1$)

Demand is relatively inelastic when the percentage change in the quantity demanded of a commodity is less than the percentage change in the price of the commodity. The demand curve under this situation is steeper.

10) Income elasticity of demand

Income elasticity of demand shows the degree of responsiveness of quantity demanded of a commodity to a small change in the income of a consumer.

$$Income \ elasticity \ = \frac{Percentage \ change \ in \ quantity \ demanded}{Percentage \ change \ in \ income \ of \ a \ consumer}$$

11) Cross elasticity of demand

Cross elasticity of demand shows the degree of responsiveness of quantity demanded of one commodity say A to the change in the price of another commodity say B.

Cross elasticity of demand =
$$\frac{Percentage\ change\ in\ quantity\ demanded\ of\ Commodity\ A}{Percentage\ change\ in\ price\ of\ Commodity\ B}$$

12) Promotional elasticity of demand

Promotional elasticity of demand shows the degree of responsiveness of quantity demanded of a Commodity to the change in advertisement expenditure.

$$Promotional\ elasticity\ of\ demand = \frac{Percentage\ change\ in\ quantity\ demanded}{Percentage\ change\ in\ advertisement\ expenditure}$$

13) Revenue

The term revenue refers to the income obtained by a firm or a seller through the sale of commodity at different prices.

14) Total revenue

The total revenue is the income earned by a firm or producer from the sale of the entire output. Thus,

$$TR = P \times Q$$

Where,

TR = Total Revenue.

P = Price of a commodity.

Q = Total Output sold.

15) Average revenue

The average revenue refers to the revenue obtained by the firm per unit of the output of a commodity.

AR = TR / Q

16) Marginal revenue

Marginal revenue is the additional revenue earned by selling an additional unit of the commodity.

$$MR_n = TR_n - TR_{n-1}$$
 OR $MR = \Delta TR / \Delta Q$

17) Demand forecasting

Demand forecasting is a systematic process that involves anticipating the demand for the product and services of an organization in future under a set of uncontrollable and competitive forces.

MODULE 3

1) Production function

In simple words, production function shows technical relationship between inputs and output. A production function shows the maximum amount of output that firm can produce using given amount of inputs during a given period of time.

Production function of a firm can be expressed as follows.

Q = f(L, N, K, E, T)

Where,

Q = Quantity produced

L = Labour

N = Natural resources

K = Capital

E = Entrepreneur

T = Technology

f = Shows functional relationship

In the above mentioned function Q i.e. output is dependent variable and L, N, K, E and T i.e. various inputs are independent variables.

2) Fixed proportion production function

The Fixed Proportion Production Function, also known as a Leontief Production Function implies that fixed factors of production such as land, labour, and raw materials are used to produce a fixed quantity of an output and these production factors cannot be substituted for the other factors.

3) Variable proportion production function

The Variable Proportion Production Function implies that the ratio in which the factors of production such as labour and capital are used is not fixed, and it is variable. Also, the different combinations of factors can be used to produce the given quantity, thus, one factor can be substituted for the other.

4) Short-run production function

A short-run production function refers to that period of time, in which the installation of new plant and machinery to increase the production level is not possible.

5) Long-run production function

The Long-run production function is one in which the firm has got sufficient time to install new machinery or capital equipment, instead of increasing the labour units.

6) Iso-Quant Curve

The word 'iso' is of Greek origin and means equal or same and 'quants' means quantity. Therefore, an isoquant is a curve along which quantity is the same. An iso-quant is also known as equal product curve or iso-product curve. An iso-quant curve represents same level of output with different combinations of factors of production.

7) Iso-quant map

An iso-quant map represents a set of iso-quant curves. A higher level of iso-quant represents the higher level of output. Thus, in simple word, iso-quant map is a family of iso-quant representing the various iso-quant at a particular level of output.

8) Law of variable proportion

Alfred Marshall, had discussed the law in relation to agriculture, according to him, "an increase in the capital and labour applied in the cultivation of land causes in general a less than

proportionate increase in the amount of product raised unless it happens to coincide with an improvement in the art of agriculture".

9) Total product

The total product is the total amount of output produced by all the variable input in a fixed proportion in production. The total product increases with the increase in the unit of labour and reaches to the maximum and their after decline with further more increase in the variable factor.

10) Average product

The average product is per unit of product produced by the firm with per unit of variable factor inputs.it is obtained by dividing the total product by the unit of total variable factor. The average product increases initially and then declines.

11) Marginal product

Marginal product is the additional output produced by an additional unit of variable factor. Marginal product increases and thereafter falls when TU becomes maximum MU becomes zero and further becomes negative.

12) Ridge lines

The ridge lines are the locus of points of isoquants where the marginal products (MP) of factors are zero. The upper ridge line implies zero MP of capital and the lower ridge line implies zero MP of labour. Production techniques are only efficient inside the ridge lines. The marginal products of factors are negative and the methods of production are inefficient outside the ridge lines.

13) Iso-Cost line

Iso-cost line represents the price of factors along with the amount of money an organization is willing to spend on factors.

14) Expansion path

An expansion path (also called a scale) is a curve in a graph with quantities of two inputs, typically capital and labour, plotted on the axes. The path connects optimal input combinations as the scale of production expands. A producer seeking to produce the most units of a product in the cheapest possible way attempts to increase production along the expansion path.

15) Law of returns to scale

The term returns to scale refers to the changes in output as all factors change by the same proportion. Returns to scale relates to the behaviour of total output as all inputs are varied and is a long run concept.

MODULE 4

1) Private cost and Social cost

Costs which are directly incurred by the individual or firm producing good or service is called **private cost**. This cost gives private benefit to an individual or firm engaged in relevant activity. Some of the examples of private cost are firms expenditure on purchase of raw material, payment of rent, wages and salaries, interest, insurance, depreciation etc. similarly companies expenditure of its labour, advertising cost for the promotion of goods, transportation cost to carry goods from company to the market are also considered as private cost.

Social cost on the other hand is bared by the society as a result of production of commodity. Even though social cost occurs due to production of a commodity it is not bared by the producer. It consists of external cost. E.g.: If a factory is located in a residential area causes air pollution. Due to pollution as the health of the people living in that area affects, they have to spend money on medical facilities. Even though this cost occurs due to the factory, it is passed on to the society. Externalities are included in the social cost.

2) Historical cost and Replacement cost

The original money value spent at the time of purchasing of the asset is called **historical cost**. Most of the assets in the balance sheet are at the historical cost. One of the advantage of historical cost is that records maintained on the basis of historical cost are considered to be reliable, consistent, comparable and verifiable. Historical cost does not reflect current market valuation.

The amount which has to be spent at the time of replacing of the existing asset is called the **replacement cost**. This cost reflects the current market prices.

If we consider an increase in prices over the years, replacement cost will be greater than historical cost. If we consider fall in prices over the years, replacement cost will be less than historical cost and if we consider prices to be constant over the years, replacement cost and historical costs are the same.

3) Fixed cost and Variable cost

Fixed cost refers to the firm's expenditure on fixed factors of production. Even if no output is produced, fixed cost needs to be paid. Even if output increases in the short run, fixed cost remain constant. Eg: If a businessman borrows money from a bank to start his business. Initially even if his output is zero, he has to pay the interest on borrowed capital. Rent on land, insurance

premium, tax payment are some of the examples of fixed cost. Addition of all fixed cost gives Total Fixed Cost.

Variable cost on the other hand refers to the firm's expenditure on variable factors of production. When no output is produced, variable cost is zero. As output increases, variable cost also increases. Payment for raw material, wages and salaries of the workers are some of the examples of variable cost. Addition of all variable costs gives the Total Variable Cost.

4) Sunk Cost and Incremental Cost

In order to enter in to the market certain costs are incurred by the firm. These costs are known as **Sunk cost**. It includes the cost by the firm for setting up the business, advertisement etc. These costs cannot be recovered by the firm if they decide to exit the market.

Incremental cost refers to a change in total coat as a result of policy change or a change in managerial decision. The concept of incremental cost is broader as compared to marginal cost. Marginal cost considers a change in total cost due to a unit change in output whereas incremental cost considers a change in total cost due to an introduction of new product, change in advertising strategy, additional batch of output etc. The concept of incremental cost is more relevant as compared to marginal cost because the firm increases its output in batches and not by unit only.

5) Implicit Cost and Explicit Cost

Implicit cost refers to the cost of all own factors which the entrepreneur employs in the business. It includes salary and wages for the service of entrepreneur, interest on capital invested by the entrepreneur etc. Implicit costs are also called indirect cost because direct cash payment is not made to own factors of production.

If entrepreneur sold these services to others, he would have earned money. Therefore implicit cost is also the opportunity cost of factors owned by him.

Explicit cost on the other hand is the direct cash payment made by the firm for purchasing or hiring of various factors of production. E.g. rent paid for hiring of land, money spent for purchasing for raw material, wages and salaries paid to the employees, expenditure on transport, power, advertising etc.

6) Accounting and Economic Cost

Accounting cost includes only explicit cost i.e. the firm's expenditure on purchasing of various factors of production. For financial purpose and tax purpose, accounting cost is important.

Economic cost on the other hand includes both explicit and implicit cost. This cost is important for managerial decision making therefore an economist who wants to take any decision consider both explicit and implicit cost.

7) Total cost (TC)

Firm's total expenditure on all fixed and variable factors for producing a commodity is called the Total cost of production.

Therefore TC= TFC+TVC

For zero level of output there is some total cost. It increases with an increases in the level of output.

8) Average Cost (AC) or Average Total Cost (ATC) –

It refers to per unit cost of producing a commodity. It is calculated by the following formula

$$AC = TC/Q$$

Where $AC = Average cost \quad TC = Total cost \quad Q = Number of units produced$

Average cost can also be calculated by using following formula-

$$AC \text{ or } ATC = AFC + AVC$$

Where AC- Average Cost

AFC- Average Fixed Cost

AVC- Average Variable Cost

9) Average Fixed Cost (AFC) -

It is the per unit fixed cost of production. It can be calculated by the following formula

Where TFC= Total Fixed Cost Q = Number of units produced

10) Average Variable Cost (AVC) –

It is the per unit variable cost of production. It can be calculated by the following formula

$$AVC = TVC/Q$$

Where TVC= Total Variable Cost Q= Number of units produced

11) Marginal Cost (MC) –

It is the addition made to the total cost. Or cost of producing an additional unit of output is called the marginal cost. It can be calculated by using following formula

MC = Change in total cost/ change in output

OR

12) Cost Function

Production function gives the functional relationship between the level of output and the various factor inputs (land, labour, capital and entrepreneur). The cost of production depends on the level of output produced, nature of technology used and prices of factors of production. Thus the cost function is derived from the production function. The cost function is given as-

$$C = f(Q, T, Pf)$$

Where C = total cost Q = Level of output produced T = Technology

Pf = Prices of factors f = Functional relationship

If we assume that technology, prices of factors are constant, total cost increases with an increase in the level of output i.e. C = f(Q).

13) Envelop curve / Long run Average Cost Curve

The Long run Average Cost curve includes the family of short run average cost curves, it is called an Envelop curve. In the long run firm can also plan to increase its scale of production and therefore LAC curve is also called the Planning Curve.

14) Learning curve

The learning curve shows an inverse relationship between an average cost of production and the level of output. This means that as firm produces more and more output, its average cost of production declines. Therefore the learning curve slopes downward from left to right.

15) Break-Even Point

Break-even analysis studies the relationship between total cost, total revenue, total profits and losses over a range of output. Break-even point is a point where the total revenue of the firm is equal to total cost. Therefore at break-even point there is no profit, no loss.

L. S. RAHEJA COLLEGE OF ARTS AND COMMERCE, DEPARTMENT OF ECONOMICS

BUSINESS ECONOMICS I WORKBOOK

FYBCOM SEMESTER I

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MODULE 1

Q.1 Draw (Graph for the	following e	quation.			
Y=3x	x + 1					
				 	 	
				 	 	

Y = 2x - 2			

Q.3. Following table shows individual Demand Schedule of 3 Consumers. Derive market demand Schedule and draw the market demand curve.

Price	Demand by Consumer A	Demand by Consumer B	Demand by Consumer C
50	15	20	10
60	12	18	8
70	10	15	6
80	8	12	4
90	6	10	2

Q.4. Following table shows individual Supply Schedule of 3 Producers. Derive market supply schedule and draw the market supply curve.

Price	Supply by Producer A	Supply by Producer B	Supply by Producer C
50	15	20	10
60	20	25	15
70	25	30	20
80	30	35	25
90	35	40	30

Q.5 With the help of following data derive demand and supply curve. Also locate the equilibrium price.

Price	Demand	Supply
100	50	10
200	40	20
300	30	30
400	20	40
500	10	50

Q.6. Explain with the help of diagram increase and decrease in demand.			

Q.7. Explain with the help of diagram increase and decrease in supply.				

Q.8. Discuss va	riations in dem	nand and sup	ply.		

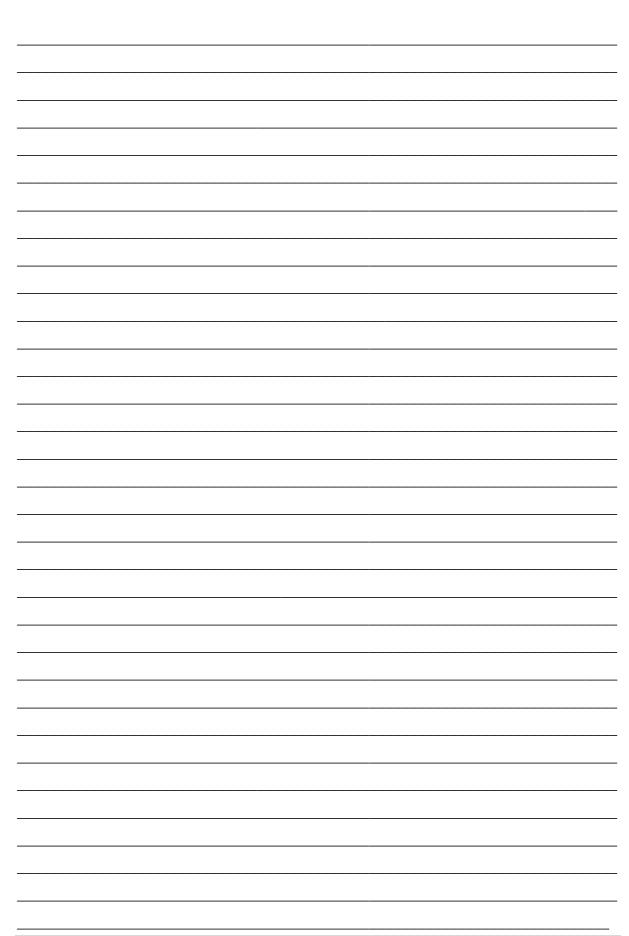
MODULE 2

Q.1		Fork out the price elasticity of demand for each, and comment on the value. The price of a smartphone is currently Rs. 2000, and the quantity demanded is 4 units. Next year the price falls to Rs. 1800 and the quantity demanded rises to 6 units.
	В.	The price of pens today is Rs. 10, and the quantity demanded is 100 units. Next year the price rises to Rs. 15 and the quantity demanded falls to 75 units.

Q.2. A local firm produces three types of pizzas, for delivery to homes in the area. The owners have completed research, to discover the demand curves for each of the three pizzas. The schedules for quantity demanded are shown below: (per week).

Price \$	Pizza A	Pizza B	Pizza C
12	800	0	100
11	840	0	200
10	880	400	300
9	920	800	400
8	960	1200	500
7	1000	1600	600
6	1040	2000	700
5	1080	2400	800

- A. Plot the three demand curves, on one graph.
- B. Calculate Price Elasticity of Demand for all three pizzas over the price range \$9 to \$10.
- C. For pizza C only, what price must be charged if the firm wishes to maximize its sales revenue?



2.3. Discuss various degrees of price elasticity with the help of diagrams.									
					-				

Q.4. From the following data calculate three yearly moving averages.

Years	2001	2002	2003	2004	2005	2006	2007	2008
Sales	50	55	60	65	70	75	80	85
								
								
								
								14 D 2 7 0

Q.5. From the following data calculate four yearly moving averages.

Years	2001	2002	2003	2004	2005	2006	2007	2008
Demand	30	40	50	60	70	80	90	100
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Q.6. From the following data calculate five yearly moving averages.

Years	2001	2002	2003	2004	2005	2006	2007	2008
Production	88	89	56	47	85	63	49	50

Q.7. From the following data calculate six yearly moving averages.

Years	2001	2002	2003	2004	2005	2006	2007	2008
Sales	56	45	39	98	67	58	92	36
		-		1				
								17 L D 2 G 0

Q.8. Fit a straight line trend for following data

Years	2001	2002	2003	2004	2005	2006	2007	2008
Sales	105	110	123	129	135	142	145	150
		.				.	· · · · · · · · · · · · · · · · · · ·	
								·
								



Q.9. Fit a straight line trend for following data

Years	2011	2012	2013	2014	2015	2016	2017
Sales	50	53	62	67	75	79	85
							



Q.10. Calculate regression equation X on Y and Y on X

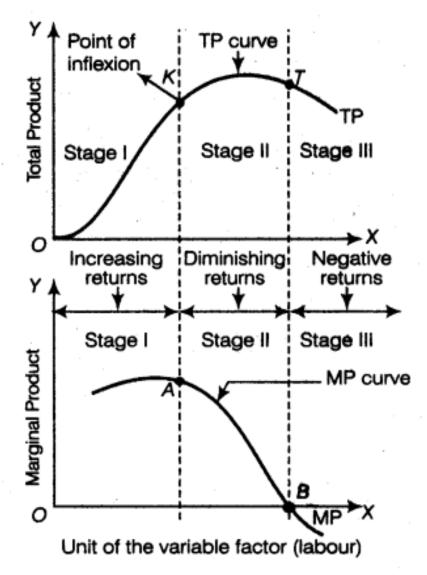
Price	50	60	70	80	90	100	110
Demand	100	95	85	70	60	50	40
							
							·
							



Q.1. Calculate AP and MP. Also locate phases of increasing, decreasing and negative returns.

Labour	1	2	3	4	5	6	7	8	9	10
TP	5	14	30	56	75	90	98	102	102	98
			1							

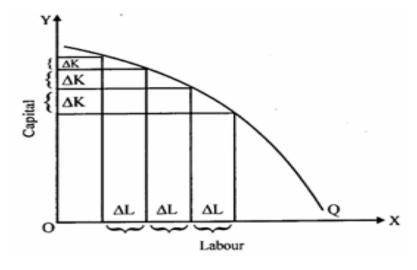
Q.2. Explain the following diagram.





Q.3. Which property of isoquants is represented here? Justify your answer. Capital IQ1 (200 units) - IQ2 (100 units) Labor

Q.4. Is this diagram of isoquants correct? Justify your answer.



1. Draw diagr	 	 	 	

	 	 ·	
	 	 	

Q.3. The fixed cost is Rs. 200. Derive TVC, TC, AFC, AVC, AC using following information.

Units	1	2	3	4	5	6	7
MC	25	15	10	10	20	30	40
	<u> </u>		I .	<u> </u>			
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Q.4. Given TFC as Rs. 150. Calculate TC, AFC, AVC, AC and MC.

Inits	1	2	3	4	5	6
VC	30	55	75	105	155	225
			•	•		
						
					 	
		·				

Q.5. Explain the following diagram.

Cost			
P2	SAC2	SAC3	AC
	Qo Q1 Q2	Qa	Output

Q.6. From the following information, calculate the break-even point in units and in sales value
Output = $3,000$ units
Selling price per unit = $Rs. 30$
Variable cost per unit =Rs. 20
Total fixed $cost = Rs. 20,000$

Q.7 It costs a publishing company 50,000 dollars to make books. The 50,000 is a fixed cost of
a cost that cannot change. To help the publishing company sell the books, a marketing company
charges 4 dollars for each book sold. If the company charges 9 dollars per book, how man
books should they sell to break even?
cooks should they self to creak even.

Q.8 It costs a man 75 \$ to buy the things that he needs to make Burger. The city allows him to
sell his Burgers somewhere near the city hall. However, the city hall charges him 1 dollar for
each Burger sold. Calculate the breakeven point if the price he charges for 1 Burger is \$1.50

L. S. RAHEJA COLLEGE OF ARTS AND COMMERCE, DEPARTMENT OF ECONOMICS

BUSINESS ECONOMICS II GLOSSARY

FYBCOM SEMESTER II

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1) Perfect competition

The Perfect Competition is a market structure where a large number of buyers and sellers are present, and all are engaged in the buying and selling of the homogeneous products at a single price prevailing in the market.

2) Monopoly

Monopoly is a market structure in which there is only one seller.

3) Normal profit

Normal Profit exists when total revenue, TR, equals total cost, TC. Normal profit is defined as the minimum reward that is just sufficient to keep the entrepreneur supplying their enterprise. In other words, the reward is just covering opportunity cost - that is, just better than the next best alternative.

4) Supernormal profit

If a firm makes more than normal profit it is called super-normal profit. Supernormal profit is also called economic profit, and abnormal profit, and is earned when total revenue is greater than the total costs.

5) Sub-normal profit

If a firm makes less than normal profit it is called sub-normal profit. Sub-normal profit is also called as loss, and is incurred when total revenue is less than the total costs.

6) Shut down point

A shutdown point is a level of operations at which a company experiences no benefit for continuing operations, and therefore decides to shut down temporarily (or in some cases permanently). It results from the combination of output and price where the company earns just enough revenue to cover its total variable costs. The shutdown point denotes the exact moment when a company's (marginal) revenue is equal to its variable (marginal) costs - in other words, it occurs when the marginal profit becomes negative.

7) Firm

Firm is a unit of production that employs factors of production (or inputs) to produce goods & services under given state of technology. It is an independently administered business unit

8) Industry

Industry is a group of related firms. The relationship between the firms may be either based upon product or process criterion, e.g. dairy industry or food processing industry etc. The concept of industry is helpful to government and businessmen to formulate their policies.

1) Monopolistic Competition

Monopolistically competitive market is the market which has some characteristics of perfect competition and some of monopoly. Even though there are many sellers under monopolistic competition, each seller has its monopoly but still there is a competition due to product differentiation.

2) Product differentiation

Product differentiation is one of the characteristics of monopolistic competition. Products are close substitutes of each other due to small differences in them. In case of products like soaps, garments, tooth paste etc. variety of products are available but each product is different from another due to various factors.

3) Production cost

It refers to the total expenses incurred to produce goods and services. They are in the form of rent wages interest and profit. It also includes depreciation and payment for their inputs which are not normally included in the above mentioned payments. Thus expenditure incurred to produce and reach commodity to the retail shop is called production cost.

4) Selling cost

Close substitute products are available in monopolistic competition, firms have to spend money for increasing sale of their product in the market. This cost is called as selling cost. It includes all expenditures of the firm which can increase their sale. It is in the form of newspaper advertisement, hoardings, exhibitions, distribution of free samples, discounts offered on products etc.

5) Excess capacity

Excess capacity is created under monopolistic competition the equilibrium of a firm under monopolistic competition is attained at a less than optimum level of output. This means that the resources are not fully utilised and therefore this underutilisation of existing capacity leads to excess capacity.

6) Oligopoly

Oligopoly is a market structure with a small number of firms, none of which can keep the others from having significant influence. The concentration ratio measures the market share of the largest firms. A monopoly is one firm, duopoly is two firms and oligopoly is two or more firms. There is no precise upper limit to the number of firms in an oligopoly, but the number must be low enough that the actions of one firm significantly influence the others.

7) Collusive oligopoly

Collusive oligopoly is a form of market in which few firms form a mutual agreement to avoid competition. They form a cartel and fix the output quotas and the market price. Leading firm in the market is accepted by the cartel as a price leader. All the firms in the cartel accept the price as fixed by the price leader.

8) Non-collusive oligopoly

Non-collusive oligopoly is a form of market in which few firms. Each firm has its price and output policy is independent of the rival firms in the market. The entire firms enable to increase its market share through competition in the market.

9) Price rigidity

Price stickiness or sticky prices or price rigidity refers to a situation where the price of a good does not change immediately or readily to the new market-clearing price when there are shifts in the demand and supply curve.

10) Cartels

A cartel is an organization created from a formal agreement between a group of producers of a good or service to regulate supply in an effort to regulate or manipulate prices. In other words, a cartel is a collection of otherwise independent businesses or countries that act together as if they were a single producer and thus are able to fix prices for the goods they produce and the services they render without competition.

11) Dominant firm leadership

This refers to a type of leadership in which only one organization dominates the entire industry. Under dominant price leadership, other organizations in the industry cannot influence prices. The dominant organization uses its power of monopoly to maximize its profits and other organizations have to adjust their output with the set price. The interests of other organizations are ignored by the dominant organization. Therefore, dominant price leadership is sometimes termed-as partial monopoly. Price leadership by the leading organization is most commonly seen in the industry.

12) Low cost firm leadership

In the low-cost price leadership model, an oligopolistic firm having lower costs than the other firms sets a lower price which the other firms have to follow. Thus the low-cost firm becomes the price leader.

13) Barometric price leadership

Refers to a leadership in which one organization declares the change in prices at first and assumes that other organizations would accept it. The organization does not dominate others and need not to be the leader in the industry. Such type of organization is known as barometer. This barometric organization only initiates a reaction to changing market situation, which other organizations may follow it if they find the decision in their interest. On the contrary, the leading organization has to be accurate while forecasting demand and cost conditions, so that the suggested price is accepted by other organizations.

14) Aggressive price leadership

Implies a leadership in which one organization establishes its supremacy by threatening the organizations to follow its leadership. In other words, a dominant organization establishes leadership by following aggressive price policies and forces other/organizations to follow the prices set by it.

MODULE 3

1) Price discrimination

Price discrimination refers to the act of selling the same article, produced under single control at different prices to different buyers. Price discrimination generally takes place in case of monopoly. Following are the types of price discrimination.

Personal price discrimination- In this type different prices are charged to different buyers for the same product or service. Example: Doctors, Lawyers, Tuition Teachers etc. Charges high fees for rich and low fees for poor. It is similar to first degree price discrimination.

Group Price Discrimination – Here entire population or area is divided into different groups and different prices are charged for different groups of people.

Example: Railways charges lower ticket to children and senior citizens and more for others. Industrial areas are charged more electricity charges as compared to residential areas. This is same as second degree price discrimination.

Market Price Discrimination – This means charging different prices for the same product in different markets.

2) Dumping

Dumping is a term used in the context of international trade. It's when a country or company exports a product at a price that is lower in the foreign importing market than the price in the exporter's domestic market. Because dumping typically involves substantial export volumes of

a product, it often endangers the financial viability of the product's manufacturers or producers in the importing nation.

3) Marginal cost pricing

According to marginal cost pricing method price is determined on the basis of the marginal cost of production. Marginal cost is the cost of producing on additional unit of output. Here the price is charged on the basis of cost of additional unit of output which the firm produces. The price is determined in such a way that it must cover the marginal cost.

4) Cost plus pricing

Cost-plus pricing is also called as full cost pricing or mark-up pricing. Two famous economist of Oxford University Hall and Hitch developed this concept of pricing. This is the most commonly adopted method of pricing. It is used by a company or firm to determine the selling price of their product. Cost-plus pricing is a very simple method for setting the prices of goods and services. According to this method Price of a commodity is determined by taking into consideration Average Fixed Cost (AFC), Average Variable Cost (AVC) and Normal Profit Margin (NPM) or mark-up percentage. This mark-up percentage is nothing but profit. In other words Price is determined by adding a fixed mark-up to the cost of producing the product. This method is generally used by manufacturing firms. It is often by Government. Thus, it is imperative to have an accurate information of average costs.

P = AFC + AVC + NPM

5) Multiple product pricing

Most of the companies today produce more than one product and sell them in more than one markets. They produce variety of products instead of specializing in one product. They do this in order to make optimum utilization of their production capacities. The goods sold by them may be substitutes or complementary goods. An automobile firm like Maruti Suzuki produces wide range of cars. So each product will have an independent demand cure and hence a separate price. Pricing of variety of goods produced by a single firm is called multiple product pricing. It is also known as multi-product pricing or product line. In this type of pricing firms needs to be very vigilant about the repercussions of prices of one product on another.

6) Transfer pricing

Transfer prices are internal prices at which intermediate goods from upstream divisions are sold to downstream divisions. Upstream divisions are those which are producing intermediate product & downstream divisions are those that are producing finished product.

1) Capital Budgeting

Capital budgeting or investment appraisal is an official procedure used by firm for assessing

and evaluating possible expenses or investments. It is a process of planning of expenditure

which involves current expenditure on fixed/durable assets in return for estimated flow of

benefits in the long run. Capital budgeting is the process of planning used to determine whether

firms long term investments such as heavy machinery, new plant, research and development

projects are worth the funding or not.

Charles T. Horngreen defines Capital budgeting as a long term planning for making and

financing proposed capital outlays.

Peterson defines capital budgeting as the process of planning capital projects, raising funds

and efficiently allocating resources to capital projects.

2) Payback Period Method

It is one of the simplest method of investment appraisal. It helps to calculate period within

which initial investment or entire cost of project would be completely recovered. It is also

known as pay-off or pay out method. It gives total number of years in which the total investment

in particular capital project pays back itself. As per this method there will be no profit till the

payback period is over.

Selection criteria: According to payback period criteria, project with lowest payback period

should be selected.

Following methods are used to calculate Payback period.

Payback Period = $\frac{Initial\ Investment}{Net\ annual\ Cash\ inflows}$

3) Net Present Value (NPV) Method:

Investment in project generates series of income (cash inflows) over a number of years. It is

also known as discounted cash flow technique. NPV method considers the time value of

money. To find out whether investment is worthwhile or not, the present value of this series

of income (cash inflows) is calculated at a given rate of discount. This gives us Gross Present

Value (GPV). If we deduct initial cost (investment) of project from GPV we get Net Present

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Value i.e. NPV. Investment should be made if present value of the expected future cash inflows from project is larger than the cost of the investment. In simple terms if NPV > 0 then accept the project and if NPV < 0, then reject the project. In case of more than one project, project with higher NPV should be preferred by the firm.

NPV = GPV - Initial Cost.

If R_1 , R_2 , R_3 , R_n are yields of assets after first, second, third, n^{th} year and r is the rate of discount then,

NPV =
$$\frac{R1}{(1+r)} + \frac{R2}{(1+r)^2} + \frac{R3}{(1+r)^3} + \dots + \frac{Rn}{(1+r)^n} - Initial Cost$$

4) Internal rate of return method

Internal rate of return method like NPV also considers time value of money by discounting annual cash inflows. This method is also known as time adjusted rate of return method. In this method we find out that rate of return which will equate the present value of future cash inflows to the present cost of the project. It is generally the rate of return that project earns. It is the discount rate (r) which equates aggregate present value of the net cash inflows with aggregate present value of cash outflows of a project. In simple terms it is the rate which makes NPV of a project equals to zero. In case of multiple projects, project with higher IRR should be selected. Following formula is used for calculating IRR.

$$I = \frac{R}{1+r}$$

Where,

I = Initial Investment

R = Cash flows

r = Rate of return

L. S. RAHEJA COLLEGE OF ARTS AND COMMERCE, DEPARTMENT OF ECONOMICS

BUSINESS ECONOMICS II WORKBOOK

FYBCOM SEMESTER II

MR. RAHUL DANDEKAR
ASSISTANT PROFESSOR
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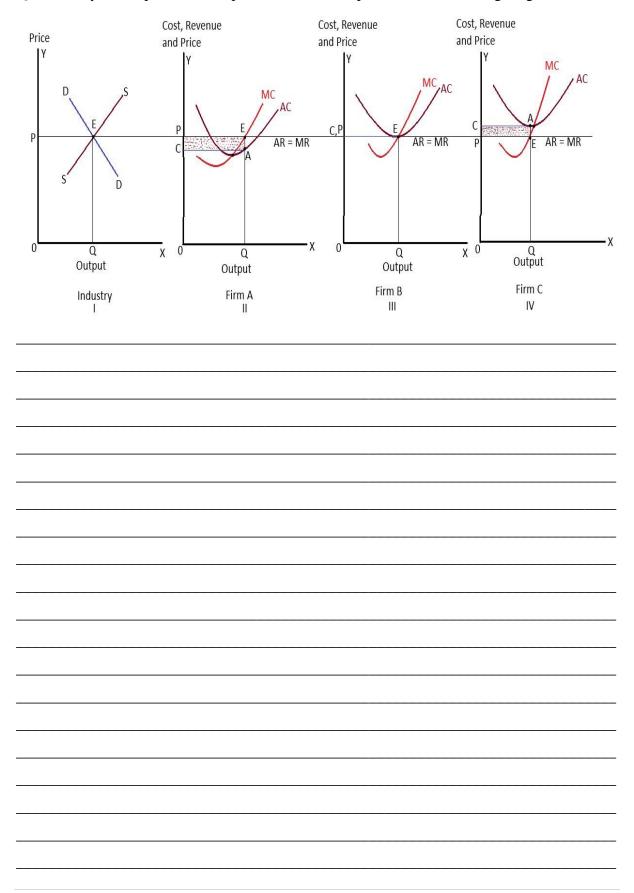
Q.1 Complete the following revenue schedule of a perfect competition firm and comment on the relationship between TR, MR and AR under perfect competition.

Quantity	Price	TR	AR	MR
1	10			
2				
3				
4				
5				
6				
7				
8				
9				
10				

Q.2. Complete the following revenue schedule of a Monopoly firm and comment on the relationship between TR, MR and AR under Monopoly.

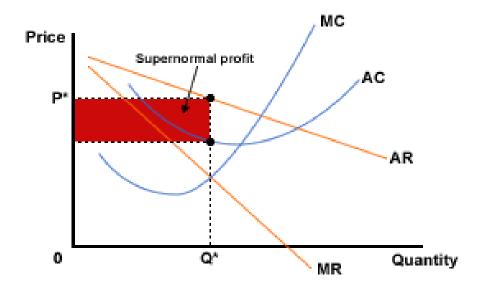
Quantity	Price	TR	AR	MR
1	30			
2	28			
3	26			
4	24			
5	22			
6	20			
7	18			
8	16			
9	14			
10	12			

Q.3. Identify and explain various profit conditions depicted in the following diagram.



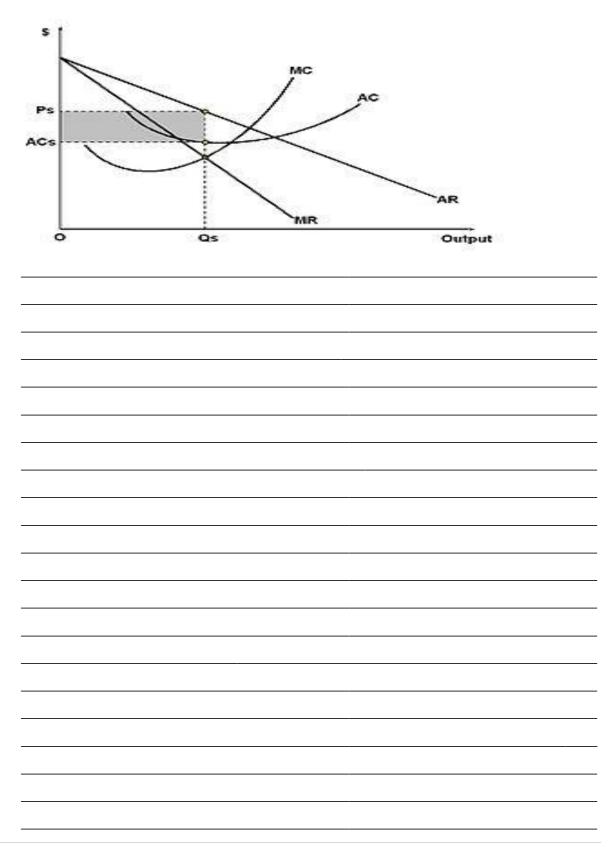


Q.4. Following diagram shows condition of supernormal profit under perfect competition. Do you agree with the above statement? Justify your answer.



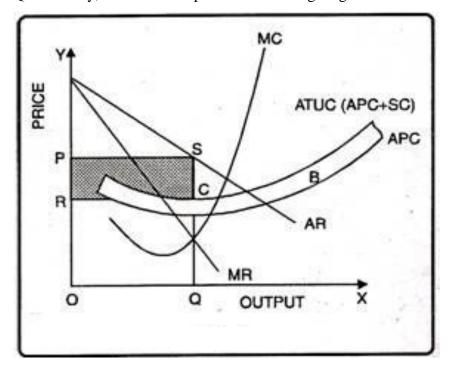
Q.5 A firm is currently producing 100 electric bulbs per month and sells them in a perfectly				
competitive market at Rs. 40 each. The marginal cost of producing the 100 th bulb is Rs. 39 and				
the marginal cost of producing the 101st bulb is Rs. 40. To maximise profit, what should the				
firm do?				

Q.1. Redraw and explain the following diagram.



2.2. What is produ		1	1	
	 			

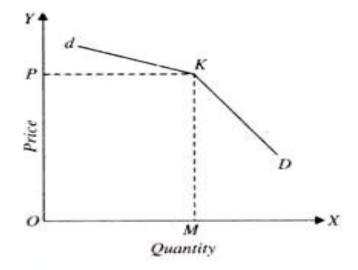
Q.3. Identify, redraw and explain the following diagram.



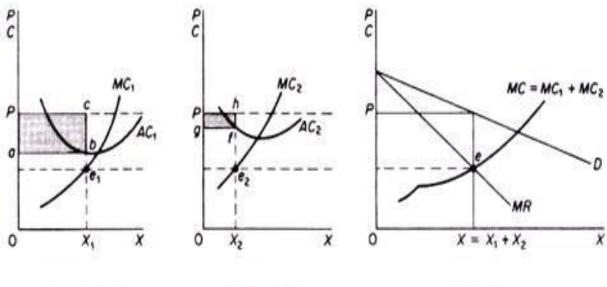
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Q.4. Identify, redraw and comment on the following demand curve.

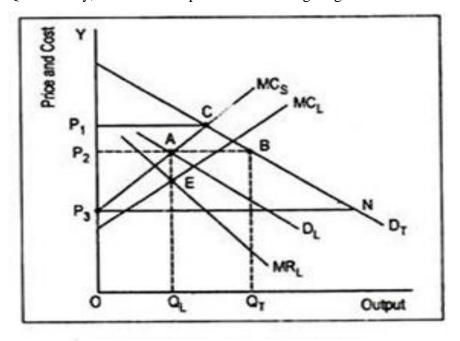


Q.5. Identify, redraw and discuss the following diagram.





Q.6. Identify, redraw and explain the following diagram.





MODULE 3

Q.1. Suppose, the firm has capacity to produce 5000 units of a commodity. It uses 80% of its
capacity and is considered as the standard output. The total variable cost incurred is ₹ 16000
and the overhead cost is ₹ 8000. The mark up decided by the firm is 50%. Estimate the price
per unit with the help of mark-up pricing.
per unit with the help of mark up priemg.

Q.2. A firm produces 100 units of commodity X at the total fixed cost of ₹ 2000 & total variable					
cost of ₹ 3000. Find the price which the firm would charge to its customers if it wants to make					
profit margin of 25% on cost. The firm uses cost plus pricing method.					

Q.3. If total cost of producing a commodity A is ₹ 5000 and mark-up fixed by the firm is ₹					
2000. Total Output to be sold is ₹ 700 units. Calculate the price per unit.					

Q.4. If the cost of product is ₹ 1500 per unit and the market expects 30% profit on cost	sts
Calculate selling price.	
Q.5. If the cost of product is ₹ 500 per unit and the market expects 50% profit on costs.	
Calculate selling price.	

Q.6. XYZ International expects to incur the following costs in its business in the upcomin						
year.						
Total production cost = ₹ 300000						
Total Sales and administration cost = ₹ 200000						
Company wants to make profit of ₹ 300000						
And ABC expects to sell 4000 units of its product.						
On the basis of above information, calculate full cost price.						

MODULE 4

Q.1. Calculate Payback period for the following data and find most suitable project.

Projects	Initial Investment	Net annual Cash Inflows
	(In Rupees)	(In Rupees)
A	10000	5000
В	10000	4000
С	10000	2000
D	10000	3000
,		
,		
,		
,		

Q.2. Suppose an initial investment in a project is Rs. 5000 and following are the annual cash flows. Calculate payback period.

First 1000 Second 1500 Third 2500 Forth 4000 Fifth 6000
Third 2500 Forth 4000
Forth 4000
Fifth 6000

Q.3. Suppose there are two projects A and B, with an initial investment of Rs. 50000 each. Cash flows of both the projects are given below. Calculate payback period and find most suitable project.

Second 30000 20000 Third 50000 30000 Forth 70000 50000	Year	Annual Cash flows	Annual Cash flows	
Second 30000 20000 Third 50000 30000 Forth 70000 50000		For Project A	For Project B	
Third 50000 30000 Forth 70000 50000	First	20000	10000	
Forth 70000 50000	Second	30000	20000	
	Third	50000	30000	
Fifth 90000 60000	Forth	70000	50000	
	Fifth	90000	60000	
	-			

Q.4. Suppose an initial investment in a project is Rs. 30000 and annual cash flows are as follows. Calculate payback period.

Year	Annual Cash flows
First	6000
Second	9000
Third	13000
Forth	18000
Fifth	25000

Q.5. If an initial investment is Rs. 50000 in a project. The project generates annual cash inflows						
of Rs. 15000, Rs. 20000 and Rs. 25000 for 3 years respectively. If rate of discount is 10 % p.a.						
then calculate NPV and find out whether project should be accepted or rejected.						
FJ						

of Rs. 7000, Rs	. 9000, Rs. 12	000 and Rs.	15000 for 4	years respec	ctively. If rate	of discount is
12 % p.a. then calculate NPV and find out whether project should be accepted or rejected.						

Q.7 If a sum of Rs. 1000 is invested in a project, it will earn Rs. 1500 at the end of one year					
Calculate IRR.					

Q.8 If a sum of Rs. 3000 is invested in a project, it will earn Rs. 3500 at the end of	of one year
Calculate IRR	

Q.8. If a sum of Rs. 20000 is invested in a project, it will earn Rs. 100000 at the end of one
year. Calculate IRR