

# Business Economics



## Meaning and Types of Markets



## CHAPTER-4

### MEANING AND TYPES OF MARKETS

#### UNIT - 1

#### MEANING AND TYPES OF MARKETS

#### INTRODUCTION

The current topic provides insights into the concept of markets and various types of revenues. It discusses the characteristics of different forms of markets like perfect competition, monopoly and monopolistic competition. It also explains the relationship between marginal revenue and price elasticity of demand.

- ➔ **MEANING OF MARKET :** Consider the following situation. You go to the local market to buy a pair of shoes. You enter one shop which sells shoes. The shoes which you like are priced at ₹ 600. But you think that they are not worth more than ₹ 500. You offer ₹ 500 for the shoes. But the shopkeeper is not ready to give them at less than ₹ 550. You finally buy the shoes for ₹ 550.

This is an example of a local market. In this market some are buyers and some are sellers. The market fixes the price at which those who want something can obtain it from those who have it to sell.

Note that it is only exchange value which is significant here. The shopkeeper selling the shoes may have felt that the shoes ought to have made more than ₹ 550. **Considerations such as 'sentimental value' mean little in the market economy.**

Most goods such as foodstuffs, clothing and household utensils etc., are given a definite price by the shopkeeper. But buyers will still influence this price. If it is too high, the market will not be cleared; if it is low, the shopkeeper's stock will run out.

**Market does not mean a physical place :** A market need not be formal or held in a particular place. Second-hand cars are often bought and sold through newspaper advertisements. Second-hand furniture may be disposed of by a card in the local shop window.

However, in studying the market economy it is essential to understand how price is determined. Since this is done in the market, we can define the market simply as all those buyers and sellers of a good or service who influence the price. Thus **a market can be defined as an organisation which promotes contact between buyers and sellers of a product either directly or indirectly and thereby make a transaction between them possible.**

**The elements of a market are :**

- (i) buyers and sellers;
- (ii) a product or service;
- (iii) bargaining for a price;

- (iv) knowledge about market conditions; and
- (v) one price for a product or service at a given time.

⇒ **Classification of Markets** : Here, various bases are adopted for the purposes of classification.

- a. Area
- b. Time
- c. Nature of transaction
- d. Regulation
- e. Volume of business
- f. Types of Competition.

⇒ **On the basis of Area**

On the basis of geographical area covered, markets are classified into

- a. **Local Markets:** Generally, markets for perishable like butter, eggs, milk, vegetables, etc., will have local markets. Like wise, bulky articles like bricks, sand, stones, etc., will have local markets as the transport of these over a long distance will be uneconomic.
- b. **Regional Markets:** Semi-durable goods command a regional market.
- c. **National Markets:** In this market durable goods and industrial items exist.
- d. **International markets:** The precious commodities like gold, silver etc. are traded in the international market.

⇒ **On the basis of Time:**

Alfred Marshall conceived the 'Time' elements in marketing and this is classified into

- a. **Very short period market** : It refers to that type of market in which the commodities are perishable and supply of commodities cannot be changed at all. In a very short-period market, the market supply is almost fixed and it cannot be increased or decreased, because skilled labour, capital and organization are fixed. Commodities like vegetables, flower, fish, eggs, fruits, milk, etc., which are perishable and the supply of which cannot be changed in the very short period come under this category.
- b. **Short-period Market:** Short period is a period which is slightly longer than the very short period. In this period, the supply of output will be increased by increasing the employment of variable factors to the given fixed capital equipments.
- c. **Long-period Market:** It implies that the time available is adequate for altering the supplies by altering even the fixed factors of production. The supply of commodities may be increased by installing a new plant or machinery and the output adjustments can be made accordingly.
- d. **Very long-period or secular period** is one when secular movements are recorded in certain factors over a period of time. The period is very long. The factors include the size of the population, capital supply, supply of raw materials etc.

⇒ **On the basis of Nature of Transactions**

- a. **Spot Market:** Spot transactions or spot markets refer to those markets where goods are physically transacted on the spot.
- b. **Future Market:** It is related to those transactions which involve contracts of the future date.

➔ **On the basis of Regulation:**

- a. **Regulated Market:** In this market, transactions are statutorily regulated so as to put an end to unfair practices. Such markets may be established for specific products or a group of products. Eg. stock exchange
- b. **Unregulated Market:** It is also called as free market as there are no restrictions on the transactions.

➔ **On the basis of volume of Business**

- a. **Wholesale Market:** The wholesale market comes into existence when the commodities are bought and sold in bulk or large quantities.
- b. **Retail Market:** When the commodities are sold in the small quantities, it is called retail market. This is the market for ultimate consumers.

➔ **On the basis of Competitions:**

Based on the type of competition markets are classified into

- a. Perfectly competitive market and
- b. Imperfect market. We shall study these markets in greater details in the following paragraphs.

➔ **TYPES OF MARKET STRUCTURES :** Generally we study markets of 4 types in economic theory.

- Perfect competition
- Monopoly
- Monopolistic competition and
- Oligopoly

**Perfect Competition :** Perfect competition is characterised by many sellers selling identical products to many buyers.

**Monopolistic Competition :** It differs in only one respect, namely, there are many sellers offering differentiated products to many buyers.

**Monopoly:** It is a situation of a single seller producing for many buyers. Its product is necessarily extremely differentiated since there are no competing sellers producing near substitute products

**In Oligopoly :** There are a few sellers selling competing products for many buyers.

The following table summarises the major distinguishing characteristics of these four major market forms.

**Distinguishing features of major types of markets**

Assumption	Market Types			
	Pure Competition	Monopolistic Competition	Oligopoly	Monopoly
Number of sellers	many	many	a few	one
Product differentiation	none	slight	none to substantial	extreme
Price elasticity of demand of a firm	infinite	large	small	small
Degree of control over price	none	some	some	very" considerable'

Before discussing each market form in greater detail it is worthwhile to know concepts of total, average and marginal revenues and behavioural principles which apply to all market conditions.

### CONCEPTS OF TOTAL REVENUE, AVERAGE REVENUE AND MARGINAL REVENUE

**Total Revenue** If a firm sells 100 units for ₹ 10 each. what is the amount which it realises? It realises ₹ 1,000 (100 x 10), which is nothing but total revenue for the firm. Thus we may state that total revenue refers to the amount of money which a firm realises by selling certain units of a commodity. Symbolically, total revenue may be expressed as

$$TR = P \times Q$$

Where, TR is total revenue

P is price

Q is quantity of a commodity sold.

**Average Revenue** : Average revenue is the revenue earned per unit of output. It is nothing but price of one unit of output because price is always per unit of a commodity. Symbolically, average revenue is

$$AR = \frac{TR}{Q}$$

Where

AR is average revenue

TR is the total revenue

Q is quantity of a commodity sold

or 
$$AR = \frac{P \times Q}{Q}$$

or  $AR = P$  (in economics average revenue itself is the price)

If, for example, a firm realises total revenue of ₹ 1,000 by the sale of 100 units It implies that the average revenue is ₹ 10 or the firm has sold the commodity at a price of ₹ 10 per unit.

**Marginal Revenue** : Marginal revenue (MR) is the change in total revenue resulting from the sale of an additional unit of the commodity. Thus, if a seller realises ₹ 1,000 after selling 100 units and ₹ 1200 after selling 101 units, we say marginal revenue is ₹ 200. We can say that MR is the rate of change in total revenue resulting from the sale of an additional unit.

$$MR = \frac{\Delta TR}{\Delta Q}$$

Where

MR is marginal revenue

TR is total revenue

Q is quantity of a commodity sold

$\Delta$  is the rate of change.

For one unit change in output

$$MR = TR_n - TR_{n-1}$$

Where TR is the total revenue when sales are at the rate of n units per period.

$TR_{n-1}$  is the total revenue when sales are at the rate of n - 1 units per period.

**Marginal Revenue, Average Revenue and Elasticity of Demand** it is to be noted that marginal revenue, average revenue and price elasticity of demand are uniquely related to one another through the formula :

$$MR = AR \times \frac{e-1}{e} \quad \text{Where } e = \text{price elasticity of demand}$$

The following points are important :

Thus if  $e = 1$ ,  $MR = AR \times \frac{1-1}{1} = 0$ .

and if  $e > 1$ , **MR. will be positive**

and if  $e < 1$ , **MR will be negative**

In a straight line demand curve, we know that the elasticity of the middle point is equal to one. It follows that marginal revenue corresponding to the middle point of the demand curve (or AR curve) will be zero.

### ⇒ BEHAVIOURAL PRINCIPLES

**Principle 1** : A firm should not produce at all if total revenue from its product does not equal or exceed its total variable cost. (This principle will apply in the short run)

It is a matter of common sense that a firm should produce only if it will do better by producing than by not producing. The firm always has the option of not producing anything. If it does not produce anything, it will have an operating loss equal to its fixed cost. Unless actual production adds as much to revenue as it adds to cost, it will increase the loss of the firm.

**Principle 2** It will be profitable for the firm to expand output whenever marginal revenue is greater than marginal cost, and to keep on expanding output until marginal revenue equals marginal cost. Not only marginal cost should be equal to marginal revenue, its curve should cut marginal revenue curve from below.

The above principle states that if any unit of production adds more to revenue than to cost, that unit will increase profits; if it adds more to cost than to revenue, it will decrease profits. Profits will be maximum at the point where additional revenue from a unit equals to its additional cost.

**Principle 3** However in the long run total revenue of the firm should be more than its total cost + normal profit.



## REMEMBER THE FOLLOWING POINTS

- In Economics market is an organisation which promotes a contact between buyers and sellers of a commodity either directly or indirectly and makes transactions between them possible.
- Market structures are of four types
  - Perfect Competition
  - Monopolistic Competition
  - Monopoly
  - Oligopoly
- In economics average revenue is known as price.
- Marginal revenue is the change in the total revenue divided by the change in the total sale.
- When marginal revenue is zero total revenue is maximum.
- Following relationships are important :

Thus if  $e = 1$ ,  $MR = AR \times \frac{1-1}{1} = 0$ .

and if  $e > 1$ ,

MR. will be positive

and if  $e < 1$ ,

MR will be negative

In a straight line demand curve, we know that the elasticity of the middle point is equal to one. It follows that marginal revenue corresponding to the middle point of the demand curve (or AR curve) will be zero.

- In the short run a firm should continue producing output if price is greater than average variable cost and marginal cost.
- A firm should not produce at all if total revenue from its output does not equal or is more than total variable cost.
- In the long run the firm should produce output only when total sales revenue is more than or equal to the total cost plus normal profit.

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## UNIT - 2

### DETERMINATION OF PRICES

#### INTRODUCTION

The topic explains how equilibrium price and quantity are determined in a free market economy with the help of demand and supply. This is explained through tables and diagrams. The topic also delves into the effects of change in demand and supply on equilibrium price and quantity.

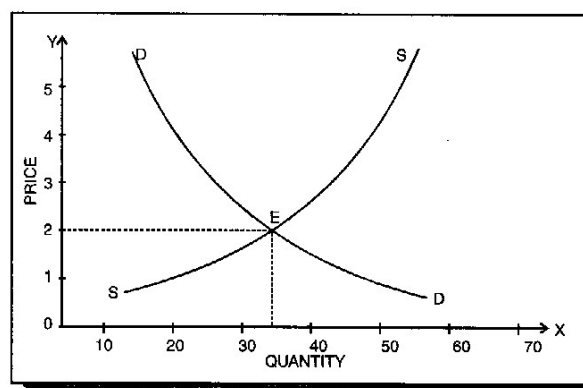
#### The determination of equilibrium price :

In an open competitive market it is the interaction between demand and supply that tends to determine price and quantity. This can be shown by bringing together demand and supply. We have the following schedule which will explain the process of price determination.

**Determination of Price**

S No	Price (₹)	Demand Units	supply Units
1	1	60	5
2	2	35	35
3	3	20	45
4	4	15	55
5	5	10	65

When we plot the above points on a single graph with price on Y-axis and quantity demanded and supplied on X-axis, we get a figure like this:



**Fig.1 : Determination of Equilibrium Price**



It is easy to see which will be the market price of the article. It cannot be Re. 1, for at that price there would be 60 units in demand, but only 5 units on offer. Competition among buyers would force the price up. On the other hand, it cannot be Re. 5, for at that price there would be 65 units on offer for sale but only 10 units in demand. Competition among sellers would force the price down. At Re. 2, demand and supply are equal (35 units) and the market price will tend to settle at this figure. This is equilibrium price and quantity — the point at which price and output will tend to stay. Once this point is reached we will have stable equilibrium. It should be noted that it would be stable only if other things were equal.

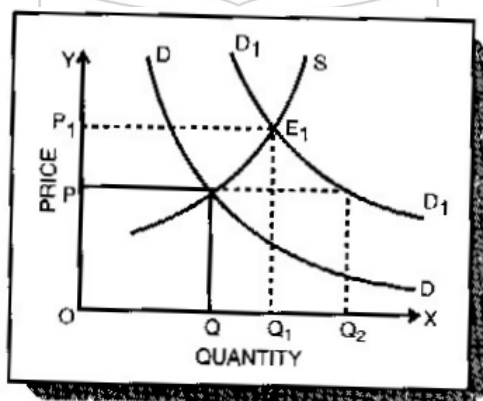
**CHANGES IN DEMAND AND SUPPLY :** The equilibrium price is the one which is determined by the forces of demand and supply in an open market. It is the price at which the market demand and the market supply are equal. However, the price would change when there are changes in market demand and market supply. Such changes are of the following four types :

- (i) An increase (shift to the right) in demand;
- (ii) A decrease (shift to the left) in demand;
- (iii) An increase (shift to the right) in supply;
- (iv) A decrease (shift to the left) in supply.

We will consider each of the above changes one by one.

- (i) **An increase in demand :** In figure , the original demand curve is DD and supply curve is SS. At equilibrium price OP. demand and supply are equal to OQ.

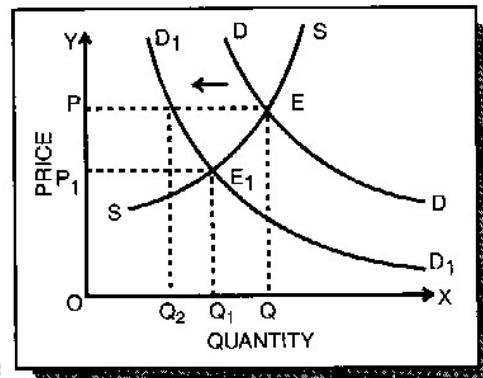
Now suppose the money income of the consumer increases, the demand curve will shift to D<sub>1</sub>D<sub>1</sub> and the supply curve will remain same. We will see that on the new demand curve D<sub>1</sub>D<sub>1</sub> at OP price demand increases to OQ<sub>2</sub> while supply remains the same i.e. OQ. Since supply is short of the demand, price will go up to OP<sub>1</sub>. With the higher price supply will also shoot up and new equilibrium between the demand and supply will be reached. At this equilibrium point, OP<sub>1</sub> is price and OQ<sub>1</sub> is the quantity which is demanded and supplied.



**Increase in Demand, causing an increase in equilibrium price and quantity**

**Thus, we see that as a result of an increase in demand, there is an increase in equilibrium price, and also in the quantity sold and purchased.**

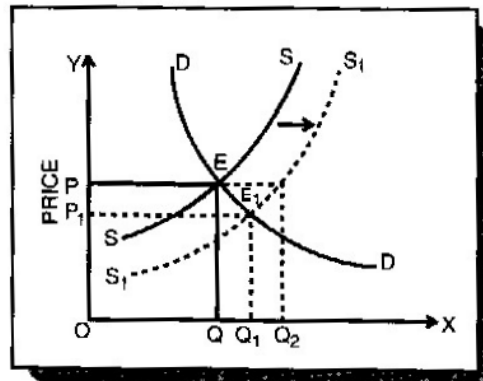
- (ii) **Decrease in Demand** : Opposite will happen when the demand falls as a result of a fall in income, while the supply remaining the same. The demand curve will shift to the left and become  $D_1D_1$  while the supply curve remaining as it is. With the new demand curve  $D_1D_1$  at original price  $OP$ ,  $OQ_2$  is demanded and  $OQ_1$  is supplied. As the supply exceeds demand, price will go down and quantity demanded will go up. A new equilibrium price  $OP_1$  will be settled in the market where demand  $OQ_1$  will be equal to supply  $OQ_1$ .



#### Decrease in Demand resulting in a decrease in price and quantity demanded

Thus with a decrease in demand, there is a decrease in the equilibrium price as well as a decrease in quantity demanded and supplied.

- (iii) **Increase in Supply** : Let us now assume that demand does not change, but there is an increase in supply say because of improved technology.

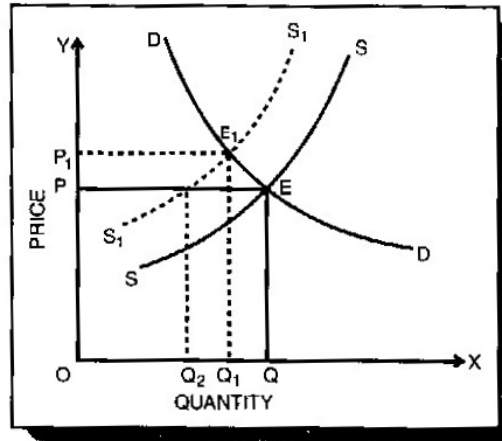


#### Increase in supply, resulting in decrease in equilibrium price and increase in quantity supplied

The supply curve  $SS$  will shift to the right and become  $S_1S_1$ . At the original equilibrium price  $OP$ ,  $OQ$  is demanded and  $OQ_2$  is supplied (with new supply curve). Since the supply is greater than the demand, the equilibrium price will go down and become  $OP_1$  at which  $OQ_1$  will be demanded and supplied..

Thus, as a result of an increase in supply the equilibrium price will go down and the quantity demanded as well as supply will go up.

(iv) **Decrease in Supply** : If because of some reason, there is a decrease in the supply we will find that equilibrium price will go up but the amount sold and purchased will go down as shown in figure :

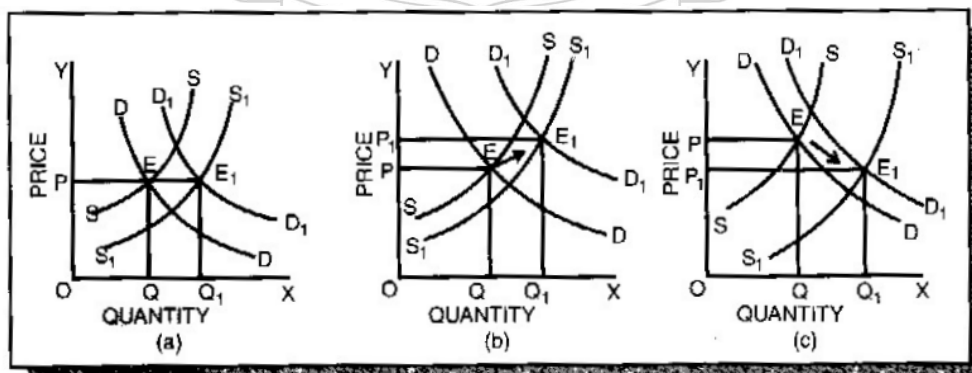


**Decrease in supply causing an increase in the equilibrium price and a fall in quantity demanded**  
**Thus a decrease in supply increases the price and decreases the quantity demanded and supplied.**

**SIMULTANEOUS CHANGES IN DEMAND AND SUPPLY**

Till now, we were considering the effect of change either in demand or in supply on the equilibrium price and the quantity sold and purchased. There may be cases in which both the supply and demand change at the same time. During a war, for example, shortage of goods will often decrease supply while full employment causes high total wage payments which increase demand.

We may discuss the changes in both demand and supply with the help of diagrams as follows



**Simultaneous Change in Demand and Supply**

Fig. shows simultaneous change in demand and supply and its effects on the equilibrium price, in the figure, the original demand curve DD and the supply curve SS meet at E at which OP is the equilibrium price OQ is the quantity bought and sold.

Fig. (a), shows that increase in demand is equal to increase in supply. The new demand curve D1D1 and S1S1 meet at E1. The new equilibrium price is equal to the old equilibrium price (OP)

Fig. (b), shows that increase in demand is more than increase in supply. Hence, the new equilibrium price OP1 is higher than the old equilibrium price OP. Opposite will happen i.e. the equilibrium price will go down if there is a simultaneous fall in the demand and supply and the fall in demand is more than the fall in supply,

Fig. (c), shows that supply increases in a greater proportion than demand. The new equilibrium price will be less than the original equilibrium price. Conversely, if the fall in the supply is more than proportionate to the fall in the demand, the equilibrium price will go up.

## REMEMBER THE FOLLOWING POINTS

1. Price of a commodity is determined by the forces of demand and supply
2. Equilibrium Price is the one at which the quantity demanded and quantity supplied become equal.
3. The market price is the price existing in the market at a given point of time.
4. Normal price is the one around which the market price rotates.
5. Other things remaining the same,
  - When demand for a commodity increases, there is an increase in equilibrium price and also increase in quantity demanded and supplied.
  - When demand for a commodity decreases, there is a decrease in equilibrium price and decrease in quantity demanded and supplied.
  - When supply of a commodity increases, there is a decrease in equilibrium price and increase in quantity demanded and supplied.
  - When supply of a commodity decreases, there is an increase in equilibrium price and a decrease in quantity demanded and supplied.
  - If increase in demand is more than increase in supply the price and quantity sold both will increase.
  - If increase in supply is more than increase in demand the price will fall and quantity demanded and sold both will increase.
  - If decrease in demand is more than decrease in supply the price and quantity sold both will decrease.
  - If decrease in supply is more than decrease in demand the price will go up and quantity demanded and sold both will decrease.



## UNIT - 3

### PRICE-OUTPUT DETERMINATION UNDER DIFFERENT MARKET FORMS

#### INTRODUCTION

The unit explores determination of price and output under different markets. It discusses short run and long run equilibrium of a firm under perfect competition, monopoly and monopolistic competition. It also explains the concepts of industry equilibrium, price discrimination and various types of oligopoly markets and their characteristics.

#### Perfect competition :

**“Perfect competition is a theoretical market situation.”**

The perfect competition, as it is described in the text books of economic theory is never found in the real life. This is because the conditions of the perfect competition are such that they are hardly fulfilled in the real life, and yet we study a perfect market because such a study makes the study of other more complicated real life market situations easy and from economic and social angle perfect competition is regarded as the most ideal market. This is why its study becomes important. Now let us examine the conditions of the perfect competition to have an idea about its nature.

**Characteristics of Perfect Competition :** The characteristics of the perfect competition can be described as under :

- 1. Large Number Of Buyers And Sellers :** In a perfectly competitive market, the number of the buyers and sellers is very large. Therefore, each individual consumer purchases an infinitesimally small quantity of the total purchase and individual seller sells an infinitesimally small part of the total sale. Because of this, neither the consumers nor the sellers individually have any control over the supply of the product and also therefore an individual buyer or the seller does not have any control over the price of the product.
- 2. Product is Homogeneous :** The product sold in the perfectly competitive market is homogeneous. In other words, the products produced by all the firms are perfectly identical in all respects. They are **absolutely similar** from the viewpoint of their quality, appearance, taste, colour, packing etc. Not only this but when we talk about homogeneity, we also assume that the **services** given with the products are also the same. Moreover there must not be any psychological differences in the products imagined by the buyers. **In the terminology of economics, the firms in a perfect market, produce perfect substitutes for the product of each other,**

**Thus, homogeneity is a very broad term. Prof. Chamberlin has remarked that the perfect competition not only assumes standardized products but also standardized producers.**

- 3. Perfect Knowledge :** It is also an important characteristic. It is assumed that in a perfect market, the buyers and the sellers have complete knowledge of the price of the product, of the quality of the product etc. It is not possible for the sellers to undertake the advertisements to convince the buyers that their products are superior to other products in the market and charge higher price for their products. It is not possible for the firms to convince the buyers through persuasive advertisements that their products are different from the products of other producers. In competitive market, for this

reason, price differences are not found. This characteristic is not there in the real life markets where products are differentiated and the perfect knowledge of the markets does not exist.

- 4. **Free Entry** : Free entry also means free exit. In competitive market, we assume that there is free entry. If the inside firms are earning supernormal profits, then outside firms can also enter the industry without any restriction and if the inside firms are incurring losses and they are willing to leave the industry, they can do so without any hindrance. There is no legal or any other obstacle in the way of the entry of the firms in the industry and their exit from the industry. This is the basic condition for the existence of the perfect competition.
- 5. **No Transport Cost** : It is also assumed that the transport costs are absent in the perfect markets. Because of the absence of the transport costs, the possibility of the price differences due to the transport cost differences is ruled out. It is for this reason that in a perfectly competitive market, the price becomes a given factor. All the sellers have to accept the price as given. So here firms are PRICE TAKERS rather than PRICE MAKERS or price setters.

**Conclusion :**

**These features together are never found to be existing at a given point of time and therefore perfect competition is regarded as a myth.**

**Difference between pure competition and perfect competition**

These differences are as under :

**Pure Competition**

Large number of buyers and Sellers. Homogeneous products. Free entry.

**Perfect Competition**

Large number of buyers and sellers. Homogeneous products. Free entry. Perfect knowledge.

No transportation costs.

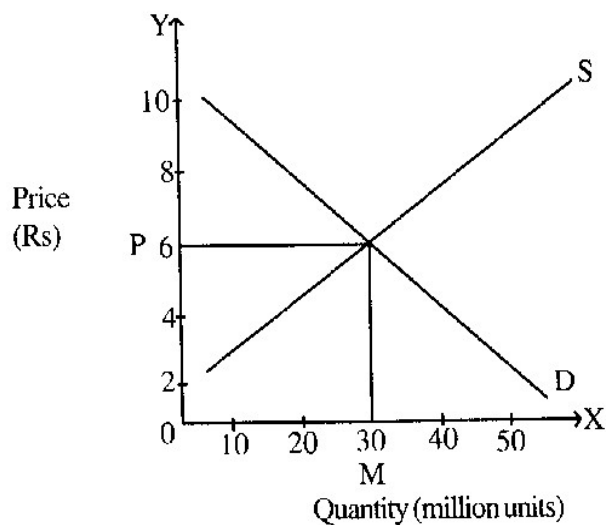
Thus, the perfect competition includes the pure competition but pure competition does not include the perfect competition. Perfect competition is broader than pure competition.

**Average revenue curve and the marginal revenue curve under the perfect competition :**

In a perfectly competitive market, the forces of the demand and supply determine the price of the commodity. The equilibrium price will be determined when the quantity demanded and supplied become equal as shown in the following schedule :

Price	Qty. demanded (Million Units)	Qty. supplied (Million Units)
10	10	50
8	20	40
6	30	= 30
4	40	20
2	50	10

Here, we can see that the equilibrium price is ₹ 6/- and the equilibrium quantity demanded and supplied is 30 million. They become equal at this price. The process of the price determination is explained in the following diagram.



In the above diagram, OP is the equilibrium price. OM is the equilibrium quantity demanded and supplied. This price OP becomes a given factor in a perfectly competitive market. The firms have to accept the price as given. An individual buyer may purchase more or less or may not purchase any quantity depending upon his choice or a seller may sell more or less or may refuse to sell any quantity at this price but if at all, they want to purchase or sell, the price will have to be accepted as a given one. So, the firms under perfect competition are known as price taker and not price setter or price maker.

**The firm cannot charge a price higher than this because in that case it will lose its market to other producers and will not charge a price lower than this because as it can sell any amount of output at this price there is no rationality in reducing price to get a larger share of the market.**

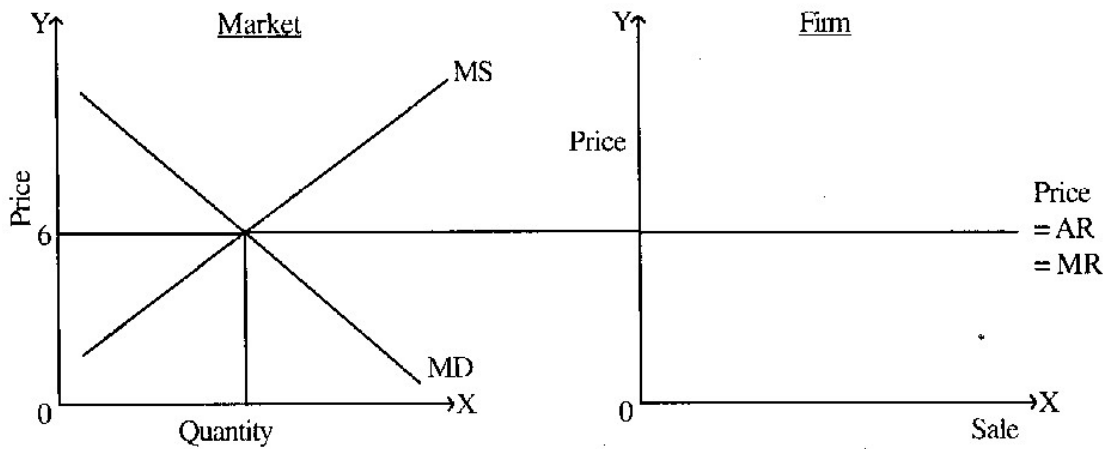
#### Average and Marginal Revenue Curves :

Any individual firm, under the perfect competition, can sell any amount of output at this price. The price remains the same. Therefore, the price or average revenue of the firm is constant, the marginal revenue is also constant and equal to the average revenue, as explained here :

Price	Sales	TR ( )	AR (Price) ( )	MR ( )
6	1	6	6	6
6	2	12	6	6
6	3	18	6	6
6	4	24	6	6
6	5	30	6	6

Because AR and MR are given and constant and also the same, the ARC and MRC of the firm coincide as shown in the diagram and a line parallel to the horizontal X-axis. Such a demand curve is perfectly elastic meaning that the firm can sell any quantity at the given price but the demand for its product will become zero at a slightly higher price.

**DIAGRAM :**



In the language of economics the Average and the Marginal revenue curves under perfect market are perfectly elastic.

Conditions of necessity and sufficiency of equilibrium under the perfect competition.

OR

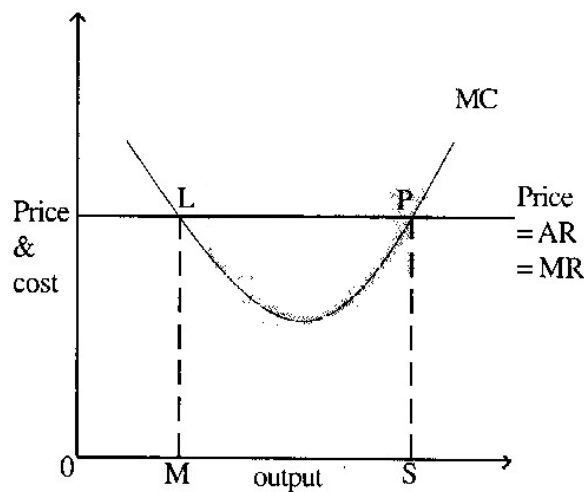
**Conditions of the equilibrium of a firm in a perfectly competitive market.**

Under the perfect competition, there are two conditions of the equilibrium of a firm.

1. The marginal revenue and the marginal cost must become equal in the equilibrium position. (MR = MC)
2. The MC curve must cut the MR curve from the below.

These two conditions of the equilibrium can be explained with the help of a diagram.

**DIAGRAM :**





axis. This being a perfect competition, the AR curve of the firm itself is the MR curve and both of them are the same. Therefore, the average and the marginal revenue curves are a parallel horizontal line to the x-axis.

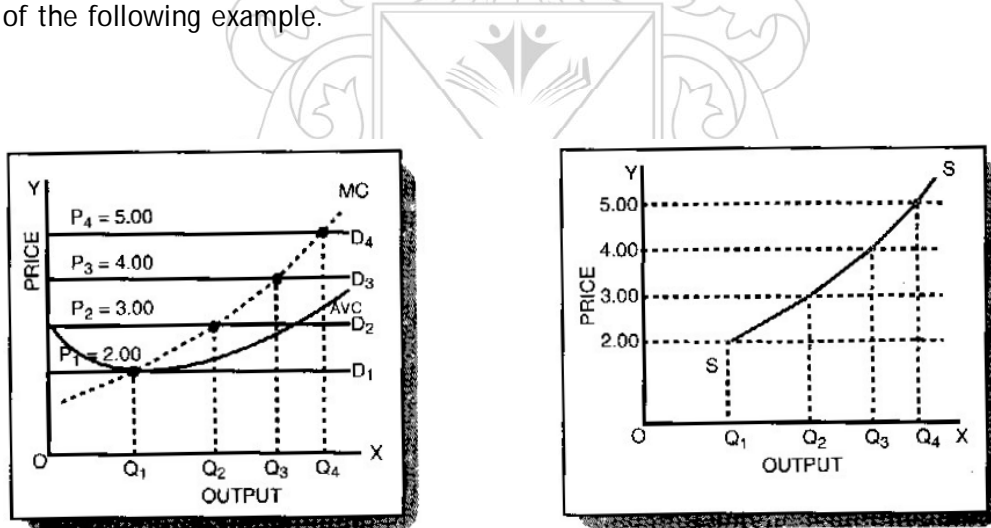
Now, we can see that the MCC of the firm cuts the MRC at two points L and P. At both the points, MR and MC of the firm are equal. However, at the L point, where firm is producing the OM output, the firm is not in equilibrium. In any market the equilibrium condition is that any expansion of the output should not be profitable. It must result into loss. OM output is not the equilibrium output. The firm can increase its profit by carrying on output up to OS. At this point, again the MR of the firm is just equal to the marginal cost of the firm. The firm will be earning the maximum profit at the OS output. Beyond OS,  $MR < MC$ , and so there would be loss for the firm if it tries to increase output. Here the term loss means a profit loss. i.e. a loss in profits.

Thus, under the perfect competition, there are two conditions of equilibrium namely.

1. The MR and MC must become equal. This is necessary condition of the equilibrium of the firm.
2. The MCC of the firm must cut the MRC from below. This second condition is the sufficient condition of the firm's equilibrium.

**The supply curve of a firm in a perfectly competitive market.**

**Supply curve of the firm in a competitive market :** One interesting thing about the MC curve of the firm in a perfectly competitive industry is that it depicts the firm's supply curve. This can be shown with the help of the following example.



**Marginal cost and supply curves for a price-taking firm**

Suppose market price of a product is  $\` 2$  corresponding to it we have  $D_1$  as demand curve for the firm. At price  $\` 2$ , the firm supplies  $Q_1$  output because here  $MR=MC$ . If the market price is  $\` 3$ , the corresponding demand curve is  $D_2$ . At  $\` 3$ , the quantity supplied is  $Q_2$ . Similarly, we have demand curves at  $D_3$  and  $D_4$  and corresponding supplies are  $Q_3$  and  $Q_4$ . The firm's marginal cost curve which gives the marginal cost corresponding to each level of output is nothing but firm's supply curve that gives the quantity the firm will supply at each price.

For prices below AVC, the firm will supply zero units because here the firm is unable to meet even its variable cost. for prices above AVC the firm will, equate price and marginal cost.

When price is just meeting the AVC, the firm will break-even ( $\` 2$  here). Here it is just meeting its average variable costs and there are no profits or losses.

Thus in perfect competition the firm's marginal cost curve above AVC has the identical shape of the firm's supply curve.

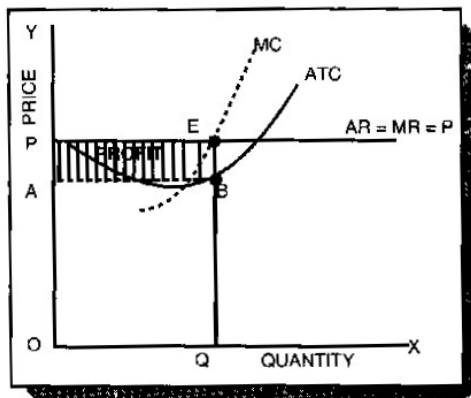
The short run and long run equilibrium of firm and industry under perfect competition.

The equilibrium of firm is that position where the firm's output becomes constant. It is that position where the marginal revenue of the firm = marginal cost. In this position the firm may be making supernormal profits, normal profits or may be incurring losses depending upon the price and cost conditions faced by the firm.

The equilibrium of industry is that position where the number of the firms in the industry becomes constant. The inside firms are not willing to leave the industry and the outside firms are not willing to enter into the industry. This would happen in the long run where all the firms in the industry are earning only normal profits as their price = their average cost.

**Supernormal Profits :** There is a difference between normal profits and supernormal profits. When the average revenue of a firm is just equal to its average total cost, it earns normal profits. It is to be noted that here a normal percentage of profits for the entrepreneur for his managerial services is already included in the cost of production. When a firm earns supernormal profits its average revenues are more than its average total cost. Thus, in addition to normal rate of profit, the firm earns additional profits. The following example will make the above concepts clear

Suppose the cost of producing 1,000 units of a product by a firm is ₹ 15,000. The entrepreneur has invested ₹ 50,000 in the business and normal rate of return in the market is 10 per cent. Thus the entrepreneur must earn at least ₹ 5,000 (10% of 50,000) in this particular business. This ₹ 5,000 will be shown as a part of cost. Thus total cost of production is ₹ 20,000 (₹ 15,000 + 5,000). If the firm is selling the product at ₹ 20, it is earning normal profits because AR (₹ 20) is equal to ATC (₹ 20). If the firm is selling the product at ₹ 22 per unit, its AR ₹ 22 is greater than its ATC (₹ 20) and it is earning supernormal profit at the rate of ₹ 2 per unit.

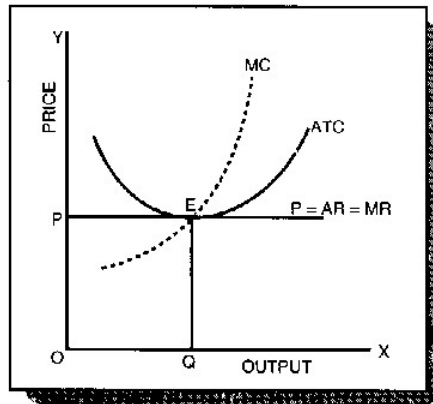


**Short-run equilibrium : Supernormal profit of a competitive firm**

The Figure shows how a firm can earn supernormal profit in the short run.

The diagram shows that in order to attain equilibrium, the firm tries to equate marginal revenue with marginal cost. MR (marginal revenue) curve is a horizontal line and MC (marginal cost) curve is a U-shaped curve which cuts the MR curve at E. At E, MR = MC. and OQ is the equilibrium output for the firm. The firm's profit per unit is EB (AR-ATC). AR is EQ and ATC is BQ. Total profits are ABEP.

**Normal profits** : When the firm just meets its average total cost, it earns normal profits. Here  $AR = ATC$ .

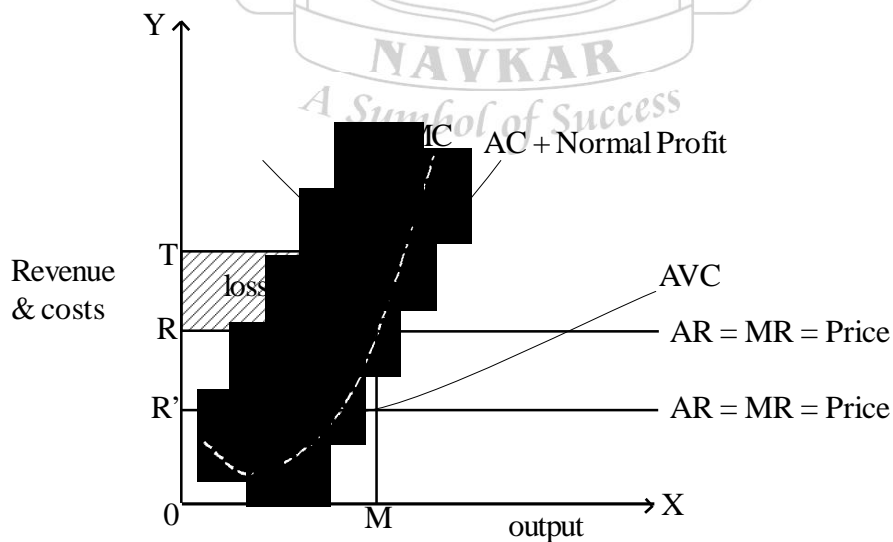


**Short-run equilibrium of a competitive firm : Normal profits**

Short-run equilibrium of a competitive firm with Normal profits

The figure shows that  $MR = MC$  at E. The equilibrium output is  $OQ$ . Since here  $AR = ATC$  or  $OP = EQ$ , the firm is just earning normal profits.

**Losses** : The firm can be in an equilibrium position and still can make losses. This is the position when the firm is minimising losses. When the firm is able to meet its variable cost and a part of fixed cost it will try to continue production in the short run if it recovers a part of the fixed costs, it will be beneficial for it to continue production because fixed costs (such as costs towards plant and machinery, building etc.) are already incurred and in such a case it will be able to recover a part of them. But if a firm is unable to meet its average variable cost also, it will be better for it to shut down. The following diagram explains this point and it also explains the shutdown point of the firm.

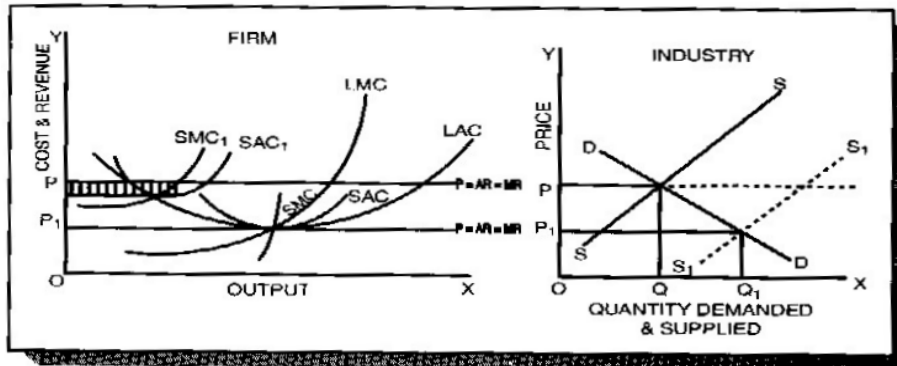


In the above diagram P is the equilibrium point, OM is the equilibrium output, OR is the price, OT is the average cost. Therefore, OMST is the total cost, OMPR is the total revenue and RPST is the minimum losses.

**However, here the firm keeps on producing output because though the price does not cover the average total cost, it covers the average variable cost and marginal cost. But if the prices falls to the level OR' then the firm just covers average variable cost. It does not cover any of the fixed cost and therefore it is better for the firm to shutdown. So, K is the shutdown point.**

**Long-Run Equilibrium of the Firm :** In the long run firms are in equilibrium when they have adjusted their plant so as to produce at the minimum point of their long run AC curve, which is tangent to the demand curve defined by the market price. In the long run. the firms will be earning just normal profits, which are included in the AC. If they are making supernormal profits in the short run, new firms will be attracted in the industry; this will lead to a fall in price (a down ward shift in the individual demand curves) and an upward shift of the cost curves due to the increase of the prices of factors as the industry expands. These changes will continue until the AC is tangent to the demand curve. If the firms make losses in the short run they will leave the industry in the long run. This will raise the price and costs may fall as the industry contracts, until the remaining firms in the industry cover their total costs inclusive of the normal rate of profit.

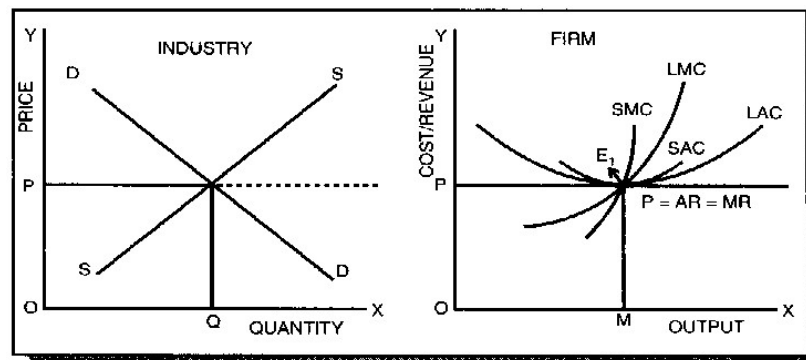
In Fig., we show how firms adjust to their long run equilibrium position. If the price is OP, the firm is making super-normal profits working with the plant whose cost is denoted by SAC<sub>1</sub>, It will, therefore, have an incentive to build new capacity and it will move along its SAC. At the same time new firms will be entering the industry attracted by the excess profits. As the quantity supplied in the market increases, the supply curve in the market will shift to the right and price will fall until it reaches the level of OP in figure given here at which the firms and the industry are in long run equilibrium.



(a) (b)  
**Long-run equilibrium of the firm in a perfectly competitive market**

Here AR = MR = MC = AC = LMC = LAC= Price

**Long run equilibrium of the industry** When (i) all the firms are earning normal profits only i.e. all the firms are in equilibrium (ii) there is no further entry or exit from the market, the industry is said to have attained long run equilibrium.



Long-run equilibrium of a competitive industry and its firms

### Long-run equilibrium of a competitive industry and its firms

Here

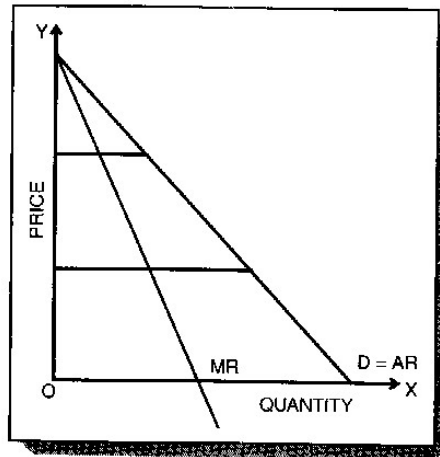
- The output is produced at the minimum possible cost,
- Consumers pay the minimum possible price which just covers the marginal cost i.e.  $MC = AR$ .
- Plants are used at full capacity in the long run, so that there is no wastage of resources i.e.  $MC = AC$
- Firms earn only normal profits i.e.  $AC = AR$ .
- Firms maximize profits (i.e.  $MC=MR$ ) but the level of profits will be just normal. In other words, in the long run,  $AR = MR = P = LMC = LAC = SMC = SAC$  and there will be optimum allocation of resources.

**Monopoly** : Mono means one and polien means seller and therefore monopoly is a market where there is only one producer or seller of a product or a service. The other important condition is that there should not be close substitutes for this product or service. The features of such a market are as under :

#### Features of Monopoly Market :

- Single seller of the product** : There is only one producer or seller of a commodity or a service and therefore, monopoly is known as **single firm industry**.
- Restrictions to Entry** : In monopoly there is a blocked entry. The reasons for this may be the size of the market, the indivisibility of the activity, amount of finance required, the nature of technological knowledge required, government policy or some natural factor giving rise to a monopoly control on supply.
- No close-substitutes** : There are no close substitutes for the monopoly product or service and therefore, the demand for it is inelastic.
- No advertisement cost** : The monopolist being the only producer in the market does not have to advertise his product.
- Monopoly power** : The monopoly firm when in equilibrium is able to charge a price higher than the marginal cost. The difference between the price and the marginal cost shows the monopoly power of the firm. **However the monopolist can either charge a desired price or can sell a desired output but he cannot sell the desired output at the desired price.** However strong the monopolist may be, if he wants to sell more he has to reduce the price of his product. If he wants to charge a higher price, he has to contend with a smaller sale. Thus, out of the two factors price and output only one factor is under the control of the monopolist.

### Monopolist's Revenue Curves



Both of them are derived from a monopolist's demand curve and marginal revenue curve. The MR curve is exactly halfway between the average revenue curve and the Y axis.

#### Equilibrium of monopoly firm in a short and a long run.

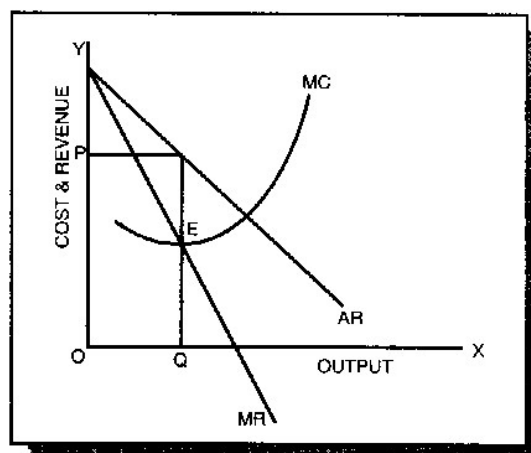
In monopoly during a short period the firm may be making monopoly profits or may be incurring losses. However, in the long run it always earns super normal monopoly profits.

**Profit maximisation in a monopolised market : Equilibrium of the monopoly firm :** Firms in a perfectly competitive market are price-takers so that they are only concerned about determination of output. But this is not the case with a monopolist. A monopolist has to determine not only output but also price for his product. Since, he faces a downward sloping demand curve, if he raises price of his product his sales will go down. On the other hand, if he wants to improve his sales volume he will have to be content with lesser price. He will try to reach that level of output at which profits are maximum i.e. he will try to attain the equilibrium level of output. How he attains this level can be found out as is shown below.

**Short run Equilibrium :** Conditions for the equilibrium The twin conditions for equilibrium in a monopoly market are same as discussed earlier.

- (i)  $MC=MR$
- (ii) MC curve must cut MR curve from below.

Graphically, we can depict these conditions in figure given here

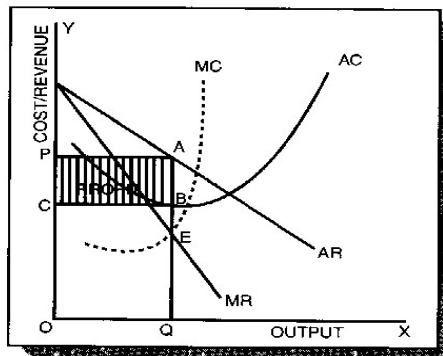


**Equilibrium position of a monopolist (Short run)**

**Equilibrium position of a monopolist (Short run)**

The figure shows that MC curve cuts MR curve at E. That means at E, equilibrium price is OP and equilibrium output is OQ.

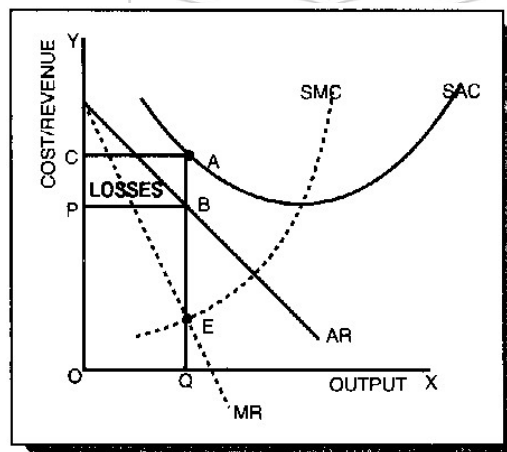
**Profit maximisation under monopoly :** In order to know whether the monopolist is making profits or losses in the short run, we need to introduce average total cost curves. The following figure shows how the firm makes profits in the short run.



**Firm's equilibrium under monopoly : maximisation of profits**

The above figure shows that MC cuts MR at E to give equilibrium output as OQ. At OQ, price charged is OP (we find this by extending line EQ till it touches AR or demand curve). Also at OQ, the cost per unit is BQ. Therefore, profit per unit is AB or total profit is ABCP.

**Loss minimisation under monopoly :** An important question that can be asked is can a monopolist incur losses? One of the misconceptions about a monopolist is that he always makes profits. It is to be noted that nothing guarantees that a monopolist makes profits. It all depends upon his demand and cost conditions. If he faces a very low demand for his product and his cost conditions are such that  $ATC > AR$ , he will not be making profits but incur losses. Figure here depicts this position.

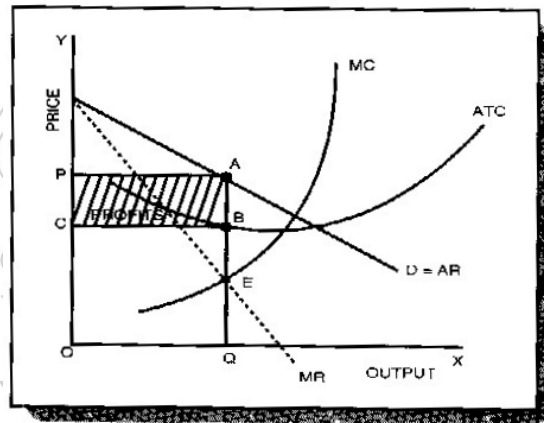


**Equilibrium of the monopolist : Losses in the short run**

### Equilibrium of the monopolist: Losses in the short run

In the above figure MC cuts MR at E. Here E is the point of loss minimisation. At E, equilibrium output is OQ and equilibrium price is OP. Cost corresponding to OQ is QA. Cost per unit of output i.e. QA is greater than revenue per unit which is BQ. Thus the monopolist incurs losses to the extent of AB per unit or total loss is ABPC.

**Long Run Equilibrium :** Long run is a period long enough to allow the monopolist to adjust his plant size or use his existing plant at any level that maximizes his profit. In the absence of competition, the monopolist need not produce at the optimal level. He can produce at sub-optimal scale also. In other words, he need not reach the minimum of LAC curve, he can stop at any place where his profits are maximum.



Long-run equilibrium of a monopolist

*A Symbol of Success*

However, one thing is certain The monopolist will not continue if he makes losses in the long run. He will continue to make super normal profits even in the long run as entry of outside firms is blocked.

### Price discrimination - the meaning and the conditions of possibility and profitability.

Price discrimination is a special feature of monopoly.

There are two words in the term price discrimination, Price & Discrimination. The word discrimination means unequal treatment.

Accordingly, price discrimination can be defined as the policy adopted by the monopoly firm under which it charges different prices for different homogeneous units of the same product or service either from the same buyer or different buyers. E.g. doctors charge different fees from different patients or Railways charge different rates from routine passengers and season-pass holders.

**Types OF Price Discrimination :** There are many different types of price discrimination.

- 1. Personal Price Discrimination :** Here, the monopoly firm charges different prices for the same product from different buyers. This is the most common form of price discrimination.



2. **Use wise Or Trade Price Discrimination** : Here, the monopoly firm charges different prices for the same product or the same service in different uses. E.g. Electricity companies charge different prices for their services from household consumers and commercial users.
3. **Place Wise Or Geographical Price Discrimination** : Here, the monopoly firm charges two different prices in two different markets. E.g. charging a higher price in the local market and charging a lower price in the international markets. (= Dumping)
4. **Time-Wise Price Discrimination** : Here, the monopoly firm charges two different prices at two different points of time e.g. Regular price and discount price in festive season.
5. **Perfect Price Discrimination** : This is a special case of price discrimination. Here, the monopoly power of the firm is so strong that it is in a position to charge different prices for each individual unit of the product.

**Objectives of Price discrimination:**

- a. to earn maximum profit
- b. to dispose of surplus stock
- c. to enjoy the economies of scale
- d. to capture foreign markets
- e. to secure equity through pricing.

Price discrimination may take place because of personal, local, income, size of the purchase, time of purchase and age of the consumers reasons.

Price discrimination may be related to the consumer surplus enjoyed by the consumers. Prof. Pigou classified three degrees of price discrimination. Under the first degree price discrimination the monopolist will fix a price which will take away the entire consumer's surplus. Under the second degree price discrimination he will take away only a part of the consumers' surplus.

Here price varies according to the quantity sold. Larger quantities are available at lower unit price. Under third degree price discrimination, price varies by attributes such as location or by customer segment. Here the monopolist will divide the consumers into separate sub markets and charge different prices in different sub-markets. E.g. Dumping.

**Conditions Under Which Price Discrimination Becomes Possible :**

Price discrimination is not always possible.

Certain conditions are to be satisfied in order that price discrimination becomes possible.

These conditions are as under :

1. **Monopoly Must Exist** : This is the most important condition for price discrimination. There should be monopoly in the market. Or in other words, the firm must have some monopoly control over the supply of its product so that the firm is able to force the buyers to pay different prices for its product. Only when a firm has control over the supply of its product, it can force the buyers to pay different prices for the same product. In a perfect market where the number of the sellers is very large and products produced by them are homogeneous, price discrimination can not take place.
2. **No Possibility of Resale** : This is another important condition for price discrimination. There should be no possibility of resale e.g. if the monopoly firm sells its product to X group of consumers at ₹ 20 /- and to Y group of consumers at ₹ 30 /-. Now somehow, if X group is able to resell the product to Y group, then the Y group would not buy from the monopoly firm, and so the price discrimination would become impossible.

**Resale Would Not Take Place Under The Following Circumstances:**

1. The markets are far apart.
2. When the product sold is a direct service.
3. When there are legal restrictions.
4. When equivalent duty or tax wipes out the price difference.
5. When the price difference is negligible.

In the above conditions, price discrimination would be possible.

**Condition of profitability** : Now let us see when would the price discrimination become profitable. Here, the condition is that the Elasticity of demand for the monopoly product should be different in different markets at the given monopoly price.

Let us assume that there are two markets. A and B. The elasticity of demand for the monopoly product in the market A is 5 and in the market B, it is 2. The price of the product is ₹ 10 /

Now let us find out the marginal revenues in these two markets at this price.

The following formula is used to find out the MR when price and elasticity of demand are given.

$$MR = AR \times \frac{E-1}{E}$$

Where AR = price, MR = Marginal revenue and E = Elasticity.

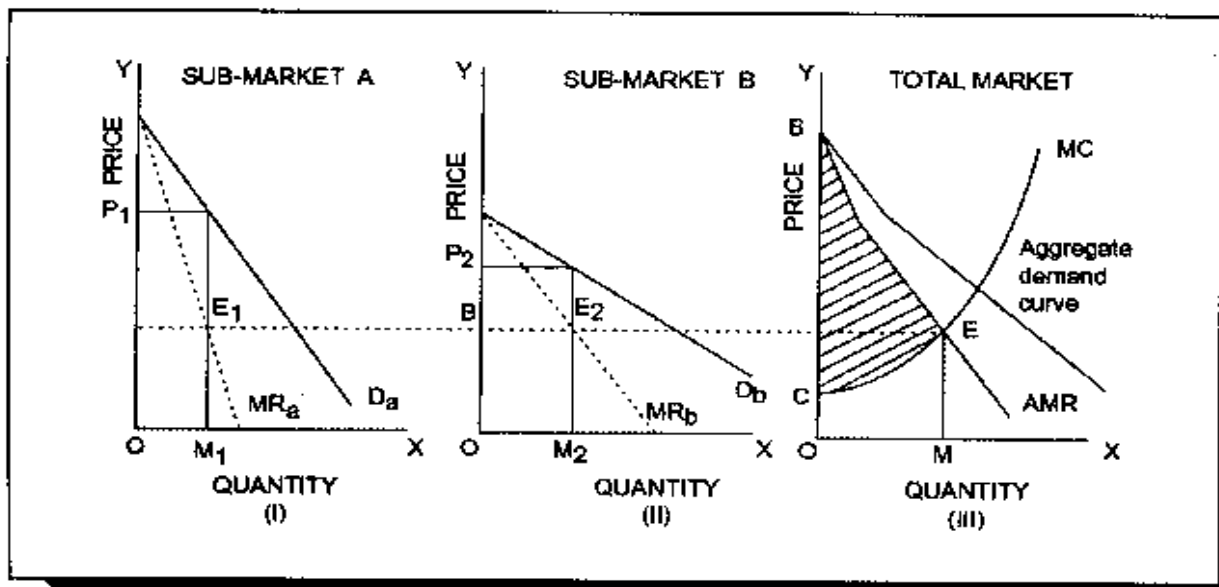
Now let us find out the MR in these two markets.

MR in the market	A	=	10	x	$\frac{5-1}{5}$	=	$\frac{40}{5}$	=	8
MR in the market	B	=	10	x	$\frac{2-1}{2}$	=	$\frac{10}{2}$	=	5

In other words, if one more (marginal) is sold in the market A, it will give additional revenue of ₹ 8 and if the same unit is sold in the market B, it gives a marginal revenue of ₹ 5. This means that if the monopoly firm transfers one unit from the market B to the market A, its total revenue will go up by ₹ 3. (₹ 8 - ₹ 5.) This would be profitable for the firm.

**Thus, PD would be profitable only when the elasticities of demand are different in different markets at a given price.**

This process of transfer will continue till such time as the MRs become equal in both the markets. When the product is transferred from the market B to the market A, price and MR in the market B will go up and they would fall in the market A. A time will come when MRs in both the markets would become equal. When this happens, the firm would stop transferring units from the market B to market A. This would be the equilibrium position of the firm. The following diagram explains this point :



**Fixation of Total Output and different price in the two sub-markets by the discriminating monopolist**

In the above diagram in the figure III the combined MR Curve cuts the MC Curve of the firm at point E. So, OM is the equilibrium output. The firm would sell OM1 output in sub-market A at the price OP1 and the remaining OM2 output at the OP2 price in the sub-market B at the OP2 price.  $OM_1 + OM_2 = OM$ . Here there are two conditions of firm equilibrium.

1. The marginal revenue of the firm = its marginal cost.
2. The marginal revenues in both the sub-markets are equal.

#### IMPERFECT COMPETITION-MONOPOLISTIC COMPETITION

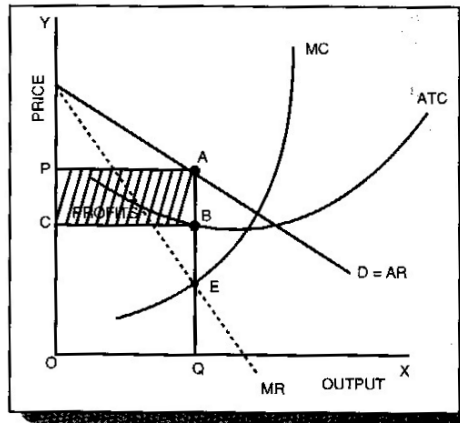
##### Features of Monopolistic Competition:

The idea of monopolistic competition was given by Prof. Edward Chamberlin. (The idea of imperfect competition was given by Mrs. Joan Robinson. However, the explanation given by Prof. Chamberlin is more exhaustive.)

- (i) **Large number of sellers** : In this market the number of the sellers is very large but it is not as large as it is in a perfectly competitive market.
- (ii) **Product differentiation** : Here, the products produced by the firms are not homogeneous but heterogeneous (differentiated). They are not perfect substitutes for each other but are only close substitutes. The products are differentiated on the grounds of location, quality, services given with the sale and advertisements made by the firms.
- (iii) **Highly elastic demand** : As the products produced by different firms are close substitutes the demand for them is highly elastic.
- (iv) **Non-price competition** : The firms compete on the ground of advertisements, after sale services, etc.
- (v) **Free entry and free exit** : As in perfect competition, in this market also there is a free entry and a free exit for all the firms.

**Price-output determination under monopolistic competition :**

**Equilibrium of a firm :** In a monopolistically competitive market since the product is differentiated between firms, each firm does not face a perfectly elastic demand for its products. The demand curve faced by the individual firms is highly elastic and the firms have some control over the price. Each firm is a price maker and is in a position to determine price of its own product. As such, the firm is faced with a downward sloping demand curve for its product. Generally, the less differentiated the product is from its competitors, the more elastic this curve will be.



**Short-run equilibrium of a firm in monopolistic competition : Super normal profits**

**Short-run equilibrium of a firm in monopolistic competition: Super normal profits**

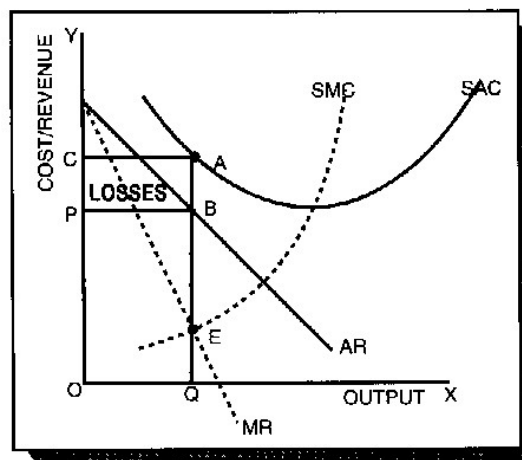
The firm depicted in figure has a downward sloping but flat demand curve for its product, The firm is assumed to have U-shaped short run cost curve.

**Conditions for the Equilibrium of an individual firm :** The conditions for price-output determination and equilibrium of an individual firm may be stated as follows:

- (i)  $MC=MR$
- (ii) MC curve must cut MR curve from below.

**Profit maximisation :** Figure shows that MC cuts MR curve at E. At E, the equilibrium price is OP and equilibrium output is OQ. Since per unit cost is BQ, per unit super normal profit (i.e. price-cost) is AB (or PC) and total super normal profit is APCB.

**Loss minimisation :** The firm may also be earning losses in the short-run. This is shown in fig. given below.

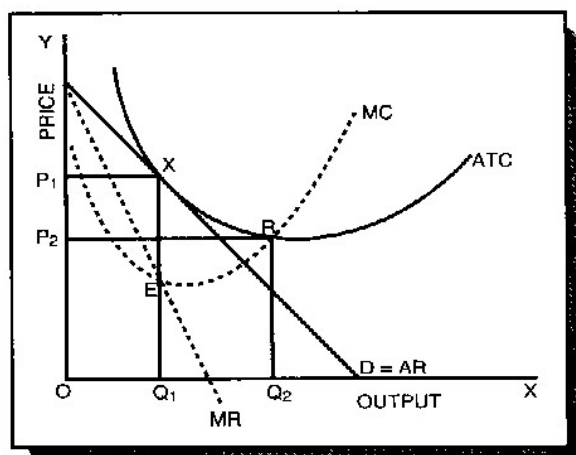


**Short-run equilibrium of a firm in Monopolistic Competition – With losses**

The figure shows that per unit cost (AQ) is higher than price OP (or BQ) of the product of the Firm and loss per unit is AB (AQ-BQ). Total loss is ACPB.

### Long run industry or group equilibrium under monopolistic competition :

What about long run equilibrium of the industry? If the firms in a monopolistically competitive Industry earn super-normal profits in the short-run, there will be an incentive for new firms to enter the industry. As more firms enter, profits per firm will go on decreasing as the total demand for the product will be shared among a larger number of firms. This will happen till all the profits are wiped away and all the firms earn only normal profits. Thus in the long run all the firms will earn only normal profits.



### The long run equilibrium of a firm in monopolistic competition

**Figure** shows the long run equilibrium of a firm in a monopolistically competitive market. The average revenue curve touches the average cost curve at point X corresponding to quantity  $Q_1$  and price  $P_1$ . At equilibrium (i.e.  $MC = MR$ ) profits are zero, since average revenue equals average costs. All firms are earning zero supernormal profits or just normal profits.

In case of losses in the short run, the loss making firms will exit from the market and this will go on till the remaining firms make normal profits only.

In the diagram we can see that the optimum output of the firm is  $OQ_2$  but the firm stops producing at the  $OQ_1$  output only. The  $Q_1 Q_2$  capacity of the firm remains unused. This is known as excess capacity problem under monopolistic competition and therefore the monopolistic competition is considered to be an undesirable market. It is a wasteful market. The other wastes of monopolistic competition are

- the existence of inefficient firms side by side the efficient firms taking the advantage of ignorance of buyers and high pressure advertisements.
- cross transport for carrying the goods which are only slightly differentiated to various places to satisfy the whimsical buyers.
- advertisements which do not have any conspicuous advantage to the advertising firms but making the buyers to pay high prices to the firms to cover their advertisement costs.

**FEATURES OF OLIGOPOLY :**

1. **Only A Few Sellers :** As the word oligopoly suggests, there are only a few sellers (or producers) in the market. The cold drink industry, the fridge industry, the TV industry etc. In India are the examples of oligopoly. It is one kind of imperfect market. All the producers are monopolists in a smaller or greater degree and yet all of them are in competition with the others. Thus oligopoly is a competition among a few monopolists.

When all oligopoly firms are of more or less equal size, then it is known as Full oligopoly and when one or two firms are dominant and rest of them are small sized, it is known as Partial oligopoly.

2. **Interdependence :** The most important feature of oligopoly is interdependence in decision-making of the few firms which comprise the industry. This is because when the number of competitors is few, any change in price, output, product, by a firm will have direct effect on the fortune of the rivals, who will then retaliate in changing their own prices, output or advertising technique as the case may be. It is, therefore, clear that an oligopolistic firm must consider not only the market demand for the industry product but also the reactions of other firms in the industry to any major decision it takes. **This reaction function is the most important feature found only in oligopoly.**

3. **Importance of advertising and selling costs or non price competition :** A direct effect of interdependence of oligopolists is that the various firms have to employ various aggressive and defensive marketing weapons to gain a greater share in the market or to maintain their share. Every firm has to protect itself against the competition of the other firms or has to aggressively compete with the other firms.

For this various firms have to incur a good deal of costs on advertising and other measures of sales promotion. Therefore, there is a great importance of advertising and selling costs in an oligopoly market. **This is known as non price competition.**

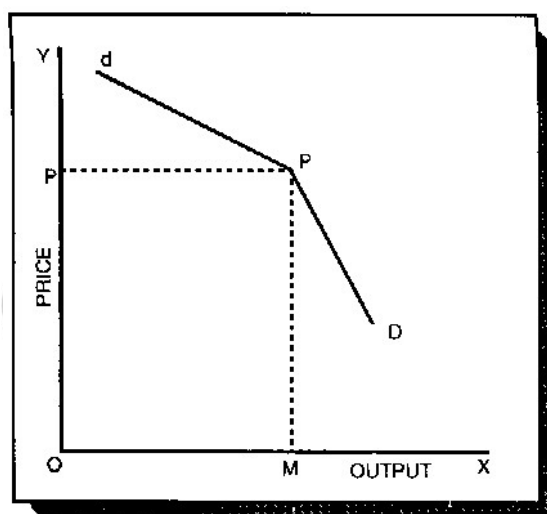
It is to be noted that firms in such type of market avoid price cutting and try to compete on non-price basis because if they start competing on the basis of price, a type of price-war will emerge which will drive a few of them out of the market as customers will try to buy from the seller selling at the cheapest price.

4. **Group behaviour :** The theory of oligopoly is a theory of group behaviour, not of mass or individual behaviour and to assume profit maximising behaviour on oligopolist's part may not be very valid. There are many forms of behaviour found in an oligopoly. - collusion, price leadership, etc.
5. **Products :** Products of various firms may be perfect substitutes or may be imperfect substitutes. However they are always close substitutes.
6. **Entry :** Entry in the oligopoly market may be free or closed, but one thing is certain and that is, the entry in this type of market is very difficult due to one reason or the other.
7. **Kinked Demand Curve :** Now let us try to get an idea about the nature of demand curve under oligopoly. The demand curve under all other markets is linear and certain while here it is kinked or cornered. There is a kink on the demand curve. This is explained in the following discussion.

**Price and output decisions in an oligopolistic market :** Because of interdependence an oligopolistic firm cannot assume that its rival firms will keep their prices and quantities constant, when it makes changes in its price and/or quantity. When an oligopolistic firm changes its price, its rival firms will retaliate or react and change their prices which in turn would affect the demand of the former firm. Therefore an oligopolistic firm cannot have sure and definite demand curve, since it keeps shifting as the rivals change their price in reaction to the price changes made by it. Now when an oligopolist does not know his demand curve, what price and output he will fix cannot be ascertained by economic analysis. However, economists have established a number of price-output models for oligopoly market depending upon the behaviour pattern of the members of the group.

**Kinked Demand Curve:** It has been observed that in many oligopolistic industries prices remain sticky or inflexible for a long time. They tend to remain constant for a long period, even in the face of declining costs. This is known as price rigidity. Many explanations have been given for this price rigidity under oligopoly and the most popular explanation is kinked demand curve hypothesis given by an American economist Sweezy.

The demand curve facing an oligopolist, according to the kinked demand curve hypothesis, has a 'kink' at the level of the prevailing price. The kink is formed at the prevailing price level. It is because the segment of the demand curve above the prevailing price level is highly elastic and the segment of the demand curve below the prevailing price level is inelastic. A kinked demand curve **dD** with a kink at point P has been shown in Figure given here.



**Kinked Demand Curve under oligopoly**

#### **Kinked Demand Curve under oligopoly**

The prevailing price level is MP and the firm produces and sells output OM. Now the upper segment dP of the demand curve dD is relatively elastic and lower segment PD is relatively inelastic.

Each oligopolist believes that if he lowers the price below the prevailing level its competitors will follow him and will accordingly lower prices, whereas if he raises the price above the prevailing level, his competitors will not follow its increase in price.

This is because when an oligopolist lowers the price of its product its competitors will feel that if they do not follow the price cut their customers will run away and buy from the firm which has lowered the price. Thus in order to maintain their customers they will also lower their prices. Thus the lower portion of the demand curve PD is price inelastic showing that very little increase in sales can be obtained by a reduction in price by an oligopolist.

On the other hand, if a firm increases the price of its product there will a substantial reduction in its sales because as a result of the rise in its price, its customers will go to its competitors which will welcome the new customers and will gain in sales. The oligopolist who raises his price will lose a great deal and will therefore refrain from increasing price. This behaviour of the oligopolists explains the elastic upper portion of the demand curve **dp** showing a large fall in sales if a producer raises his price.

Each oligopolist will, thus, stick to the prevailing price as there is no gain in changing it and a kink will be formed at the prevailing price. Thus, rigid or sticky prices are explained according to the kinked demand curve theory. **Prof. Paul Sweezy has used oligopoly model to explain sticky prices.**

### **Collusive Oligopoly and price leadership:**

When the firms enter into agreements to pursue uniform price-output policy so to avoid price wars and cut throat competition, it is known as collusive oligopoly.

#### **But collusions are of two main types:**

- (a) Cartels and
- (b) Price leadership.

In a **cartel type** of collusive oligopoly, firms **jointly fix a price and output policy** through agreements. But under **price leadership, one firm sets the price and others follow it**. The one which sets the price is a price leader and the others who follow it are its followers. Cartels come into existence when all the firms are more or less of the same size. Price leadership occurs when one firm is large whereas others are relatively small.

Price leadership is of three types.

- i. Price leadership by a dominant firm: A firm with the highest market share sets its profit maximizing price whereas the other firms follow it.
- ii. Price leadership by a low cost firm: A firm with the lowest cost sets the price which fetches some profit to small firms also and the small firms accept the price.
- iii. Barometric Price Leadership: An old, experienced and respected firm sets the price which is best for all the firms of the industry after taking in to account the costs, demand etc and others follow that price.

Other important market forms other important market forms are:

- i. **Duopoly**, a subset of oligopoly, is a market situation in which there are only two firms in the market.
- ii. **Monopsony** is a market characterized by a single buyer of a product or service and is mostly applicable to factor markets in which a single firm is the only buyer of a factor.
- iii. **Oligopsony** is a market characterized by a small number of large buyers and is mostly relevant to factor markets.
- iv. **Bilateral monopoly** is a market structure in which there is only a single buyer and a single seller i.e. it is a combination of monopoly market and a monopsony market.

□



## REMEMBER THE FOLLOWING POINTS

- ⇒ In all the markets the objective of the firm is to maximise profits.
- ⇒ In all the markets the objective of the firm is to maximise profits by equating the marginal revenue with the marginal cost.

### Perfect Competition

- ⇒ Perfect competition is a myth because we do not see any market in the practical life which would satisfy all the conditions of such a market.
- ⇒ In Perfect competition the average revenue curve itself is the marginal revenue curve.
- ⇒ In Perfect competition the marginal cost curve above the minimum point of the average variable cost curve is the supply curve of the firm.
- ⇒ In Perfect competition the marginal cost curve must be rising at the point of equilibrium.
- ⇒ The shut-down point is the one where the price obtained by the firm is just equal to the average variable cost.
- ⇒ In Perfect competition all the firms are of the optimum size in the long run.
- ⇒ Out of all the markets the Perfect competition is the most ideal market.
- ⇒ In Perfect competition all the firms have to accept the price determined by the market and therefore the firms in Perfect competition the firms are known as price taker.
- ⇒ In Perfect competition the average revenue curve itself is the marginal revenue curve and both of them are parallel to the horizontal x-axis.
- ⇒ **The total revenue curve of a perfectly competitive firm is a 45 degree straight line starting from the point of origin.**

### Monopoly

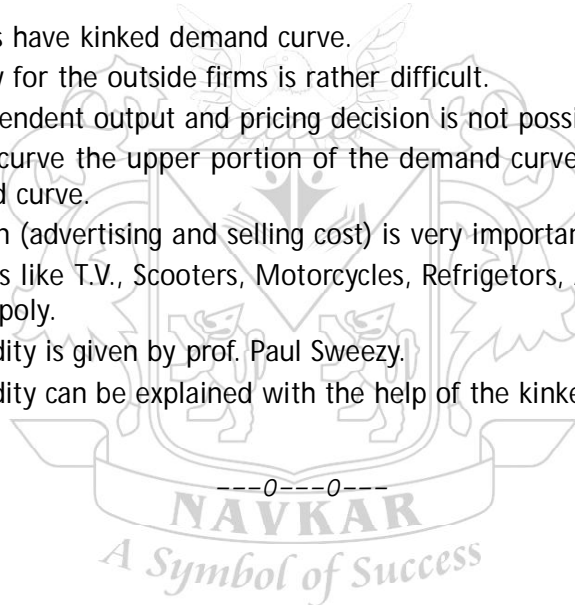
- ⇒ In monopoly there is only one firm and therefore it is known as single firm industry.
- ⇒ In monopoly the firm is price setter because it has got control over the supply of the product.
- ⇒ In monopoly the average revenue and marginal revenue curves both are downward sloping curves.
- ⇒ In monopoly there is closed entry and therefore only in this market the firm earns super normal profits even in the long run.
- ⇒ Monopoly power is the power of the firm to charge a price higher than the marginal cost.
- ⇒ In monopoly there can be losses during a short run when the demand is inadequate and the price obtained is smaller than the average cost.
- ⇒ In monopoly there is no supply curve of the firm.
- ⇒ For a given size of market the output under monopoly would be smaller and price would be higher than what they are in perfectly competitive market.
- ⇒ A monopoly firm can charge either a desired price or can sell a desired output but cannot sell a desired output at a desired price.
- ⇒ Monopoly power is the power to charge a higher price. It is measured by the distance between average revenue curve and marginal cost curve in equilibrium.
- ⇒ According to Prof. Lerner monopoly power =  $\frac{\text{price} - \text{marginal cost}}{\text{price}}$
- ⇒ In monopoly exploitation of buyers and factors of production is very common.
- ⇒ **In the first degree price discrimination the consumer's surplus is zero. In the second degree price discrimination the consumer's surplus is plus while in the third degree price discrimination the monopolist divides the market according to the purchasing power of various consumer groups.**

**Monopolistic competition**

- ⇒ The idea of monopolistic competition is given by Prof. Edward Chamberlin
- ⇒ Product differentiation is the most important feature of monopolistic competition.
- ⇒ Monopolistic competition is wasteful because in this market all the firm operate with unused production capacities in the long run when the industry is in equilibrium.
- ⇒ The average and marginal revenue curves of a firm under monopolistic competition are more elastic than under monopoly.
- ⇒ There are four wastes of monopolistic competition.
  1. Excess capacities
  2. Wasteful advertisements
  3. Cross transport
  4. Existence of inefficient firms side by side efficient firms.
- ⇒ Out of all the markets monopolistic competition is the worst form of market.

**Oligopoly**

- ⇒ In Oligopoly the firms have kinked demand curve.
- ⇒ In Oligopoly the entry for the outside firms is rather difficult.
- ⇒ In Oligopoly an independent output and pricing decision is not possible for the firm.
- ⇒ In a kinked demand curve the upper portion of the demand curve is more elastic than the lower portion of the demand curve.
- ⇒ Non price competition (advertising and selling cost) is very important for oligopoly firms.
- ⇒ In India the industries like T.V., Scooters, Motorcycles, Refrigerators, Air-conditioners, cold-drinks are the examples of oligopoly.
- ⇒ The idea of price rigidity is given by prof. Paul Sweezy.
- ⇒ The idea of price rigidity can be explained with the help of the kinked demand curve.



## CLASS WORK

1. In the table below what will be equilibrium market price?

Price (₹)	Demand (tonnes per annum)	Supply (tonnes per annum)
1	1000	400
2	900	500
3	800	600
4	700	700
5	600	800
6	500	900
7	400	1000
8	300	1100

- (a) ₹ 2                      (b) ₹ 3  
(c) ₹ 4                      (d) ₹ 5
2. Assume that when price is ₹ 20, quantity demanded is 9 units, and when price is ₹ 19, quantity demanded is 10 units. Based on this information, what is the marginal revenue resulting from an increase in output from 9 units to 10 units.
- (a) ₹ 20                      (b) ₹ 19  
(c) ₹ 10                      (d) Re. 1
3. Assume that when price is ₹ 20, quantity demanded is 15 units, and when price is ₹ 18, quantity demanded is 16 units. Based on this information, what is the marginal revenue resulting from an increase in output from 15 units to 16 units?
- (a) ₹ 18                      (b) ₹ 16  
(c) ₹ 12                      (d) ₹ 28
4. Suppose a firm is producing a level of output such that  $MR > MC$ . What should the firm do to maximize its profits?
- (a) The firm should do nothing.  
(b) The firm should hire less labour.

- (c) The firm should increase price.  
(d) The firm should increase output.
5. Marginal Revenue is equal to :
- (a) the change in price divided by the change in output.  
(b) the change in quantity divided by the change in price.  
(c) the change in  $P \times Q$  due to a one unit change in output.  
(d) price, but only if the firm is a price searcher.
6. Which of the following is not an essential condition of pure competition?
- (a) Large number of buyers and sellers  
(b) Homogeneous product  
(c) Freedom of entry  
(d) Absence of transport cost
7. What is the shape of the demand curve faced by a firm under perfect competition?
- (a) Horizontal  
(b) Vertical  
(c) Positively sloped  
(d) Negatively sloped
8. Which is the first order condition for the profit of a firm to be maximum?
- (a)  $AC = MR$                       (b)  $MC = MR$   
(c)  $MR = AR$                       (d)  $AC = AR$
9. Which of the following is not a characteristic of a "price taker"?
- (a)  $TR = P \times Q$   
(b)  $AR = Price$   
(c) Negatively – sloped demand curve  
(d) Marginal Revenue = Price
10. Which of the following is not a condition of perfect competition?
- (a) A large number of firms.  
(b) Perfect mobility of factors.  
(c) Informative advertising to ensure that consumers have good information.  
(d) Freedom of entry and exit into and out of the market.
11. Which of the following is not a characteristic of a perfectly competitive market?
- (a) Large number of firms in the industry.

- (b) Outputs of the firms are perfect substitutes for one another.
- (c) Firms face downward-sloping demand curves.
- (d) Resources are very mobile.
- 12.** Which of the following is not a characteristic of monopolistic competition?
- (a) Ease of entry into the industry.
- (b) Product differentiation.
- (c) A relatively large number of sellers.
- (d) A homogenous product.
- 13.** All of the following are characteristics of a monopoly except :
- (a) there is a single firm.
- (b) the firm is a price taker.
- (c) the firm produces a unique product.
- (d) the existence of some advertising.
- 14.** Oligopolistic industries are characterized by :
- (a) a few dominant firms and substantial barriers to entry.
- (b) a few large firms and no entry barriers.
- (c) a large number of small firms and no entry barriers.
- (d) one dominant firm and low entry barriers.
- 15.** Price-taking firms, i.e., firms that operate in a perfectly competitive market, are said to be "small" relative to the market. Which of the following best describes this smallness?
- (a) The individual firm must have fewer than 10 employees.
- (b) The individual firm faces a downward-sloping demand curve.
- (c) The individual firm has assets of less than Rs. 20 lakh.
- (d) The individual firm is unable to affect market price through its output decisions.
- 16.** For the price-taking firm :
- (a) marginal revenue is less than price.
- (b) marginal revenue is equal to price.
- (c) marginal revenue is greater than price.
- (d) the relationship between marginal revenue and price is indeterminate.
- 17.** Monopolistic competition differs from perfect competition primarily because
- (a) in monopolistic competition, firms can differentiate their products.
- (b) in perfect competition, firms can differentiate their products.
- (c) in monopolistic competition, entry into the industry is blocked.
- (d) in monopolistic competition, there are relatively few barriers to entry.
- 18.** The long-run equilibrium outcomes in monopolistic competition and perfect competition are similar, because in both market structures
- (a) the efficient output level will be produced in the long run.
- (b) firms will be producing at minimum average cost.
- (c) firms will only earn a normal profit.
- (d) firms realise all economies of scale.
- 19.** A monopolist is able to maximise his profits when :
- (a) his output is maximum.
- (b) he charges a high price.
- (c) his average cost is minimum.
- (d) his marginal cost is equal to marginal revenue.
- 20.** In which form of the market structure is the degree of control over the price of its product by a firm very large?
- (a) Monopoly
- (b) Imperfect Competition
- (c) Oligopoly
- (d) Perfect competition
- 21.** Under which of the following forms of market structure does a firm have no control over the price of its product?
- (a) Monopoly
- (b) Monopolistic competition
- (c) Oligopoly
- (d) Perfect competition
- 22.** Discriminating monopoly implies that the monopolist charges different prices for his commodity:
- (a) from different groups of consumers
- (b) for different uses

- (c) at different places  
(d) any of the above.
23. Price discrimination will be profitable only if the elasticity of demand in different market in which the total market has been divided is :  
(a) uniform (b) different  
(c) less (d) zero
24. The Kinked demand hypothesis is designed to explain in the context of oligopoly  
(a) Price and output determination  
(b) Price rigidity  
(c) Price leadership  
(d) Collusion among rivals.
25. The firm in a perfectly competitive market is a price taker. This designation as a price taker is based on the assumption that  
(a) the firm has some, but not complete, control over its product price.  
(b) there are so many buyers and sellers in the market that any individual firm cannot affect the market.  
(c) each firm produces a homogeneous product.  
(d) there is easy entry into or exit from the market place.
26. Suppose that the demand curve for the XYZ Co. slopes downward and to the right. We can conclude that  
(a) the firm operates in a perfectly competitive market.  
(b) the firm can sell all that it wants to at the established market price.  
(c) the XYZ Co. is not a price taker in the market because it must lower price to sell additional units of output.  
(d) the XYZ Co. will not be able to maximise profits because price and revenue are subject to change.
27. If firms in the toothpaste industry have the following market shares, which market structure would best describe the industry?
- | Market share | (% of market) |
|--------------|---------------|
| Toothpaste   | 18.7          |
| Dentipaste   | 14.3          |
| Shinibright  | 11.6          |
- I can't believe its not toothpaste 9.4  
Brighter than white 8.8  
Pastystuff 7.4  
Others 29.8  
(a) Perfect competition  
(b) Monopolistic competition  
(c) Oligopoly  
(d) Monopoly
28. The kinked demand curve model of oligopoly assumes that  
(a) response to a price increase is less than the response to a price decrease.  
(b) response to a price increase is more than the response to a price decrease.  
(c) elasticity of demand is constant regardless of whether price increases or decreases.  
(d) elasticity of demand is perfectly elastic if price increases and perfectly inelastic if price decreases.
29. A firm encounters its "shutdown point" when  
(a) average total cost equals price at the profit-maximising level of output.  
(b) average variable cost equals price at the profit-maximising level of output.  
(c) average fixed cost equals price at the profit-maximising level of output.  
(d) marginal cost equals price at the profit-maximising level of output.
30. Suppose that, at the profit-maximizing level of output, a firm finds that market price is less than average total cost, but greater than average variable cost. Which of the following statements is correct?  
(a) The firm should shutdown in order to minimise its losses.  
(b) The firm should raise its price enough to cover its losses.  
(c) The firm should move its resources to another industry.  
(d) The firm should continue to operate in the short run in order to minimize its losses.
31. When price is less than average variable cost at the profit-maximising level of output, a firm

- should :
- (a) produce where marginal revenue equals marginal cost if it is operating in the short run.
- (b) produce where marginal revenue equals marginal cost if it is operating in the long run.
- (c) shutdown, since it will lose nothing in that case.
- (d) shutdown, since it cannot even cover its variable costs if it stays in business.
- 32.** A purely competitive firm's supply schedule in the short run is determined by
- (a) its average revenue.
- (b) its marginal revenue.
- (c) its marginal utility for money curve.
- (d) its marginal cost curve.
- 33.** One characteristic not typical of oligopolistic industry is
- (a) horizontal demand curve.
- (b) too much importance to non-price competition.
- (c) price leadership.
- (d) a small number of firms in the industry.
- 34.** The structure of the toothpaste industry in India is best described as
- (a) perfectly competitive.
- (b) monopolistic.
- (c) monopolistically competitive.
- (d) oligopolistic.
- 35.** The structure of the cold drink industry in India is best described as
- (a) perfectly competitive.
- (b) monopolistic.
- (c) monopolistically competitive.
- (d) oligopolistic.
- 36.** Which of the following statements is incorrect?
- (a) Even monopolistic can earn losses.
- (b) Firms in a perfectly competitive market are price takers.
- (c) It is always beneficial for a firm in a perfectly competitive market to discriminate prices.
- (d) Kinked demand curve is related to an oligopolistic market.
- 37.** In perfect competition in the long run there will be no \_\_\_\_\_.
- (a) normal profits
- (b) supernormal profits.
- (c) production
- (d) costs.
- 38.** When \_\_\_\_\_, we know that the firms are earning just normal profits.
- (a)  $AC = AR$  (b)  $MC = MR$
- (c)  $MC = AC$  (d)  $AR = MR$
- 39.** When \_\_\_\_\_, we know that the firms must be producing at the minimum point of the average cost curve and so there will be productive efficiency.
- (a)  $AC = AR$  (b)  $MC = AC$
- (c)  $MC = MR$  (d)  $AR = MR$
- 40.** When \_\_\_\_\_, there will be allocative efficiency meaning thereby that the cost of the last unit is exactly equal to the price consumers are willing to pay for it and so that the right goods are being sold to the right people at the right price.
- (a)  $MC = MR$  (b)  $MC = AC$
- (c)  $MC = AR$  (d)  $AR = MR$
- 41.** Agricultural goods markets depict characteristics close to
- (a) perfect competition.
- (b) oligopoly.
- (c) monopoly.
- (d) monopolistic Competition.
- 42.** Which of the following is not a characteristic of a competitive market?
- (a) There are many buyers and sellers in the market.
- (b) The goods offered for sales are largely the same.
- (c) Firms generate small but positive supernormal profits in the long run.
- (d) Firms can freely enter or exit the market.
- 43.** Which of the following markets would most closely satisfy the requirements for a perfectly competitive market?
- (a) Electricity (b) Cable television
- (c) Cola (d) Milk

44. The competitive firm maximizes profit when it produces output up to the point where  
 (a) price equals average variable cost  
 (b) marginal revenue equals average revenue  
 (c) marginal cost equals total revenue  
 (d) marginal cost equals marginal revenue
45. The market for hand tools (such as hammers and screwdrivers) is dominated by Draper, Stanley, and Craftsman. This market is best described as  
 (a) Monopolistically competitive  
 (b) a monopoly  
 (c) an oligopoly  
 (d) perfectly competitive
46. A market structure in which many firms sell products that are similar but not identical is known as  
 (a) monopolistic competition  
 (b) monopoly  
 (c) perfect competition  
 (d) oligopoly
47. When an oligopolist individually chooses its level of production to maximize its profits, it charges a price that is  
 (a) more than the price charged by either monopoly or a competitive market  
 (b) less than the price charged by either monopoly or a competitive market  
 (c) more than the price charged by a monopoly and less than the price charged by a competitive market  
 (d) less than the price charged by a monopoly and more than the price charged by a competitive market.
48. In the long-run equilibrium of a competitive market, firms operate at  
 (a) the intersection of the marginal cost and marginal revenue  
 (b) their efficient scale  
 (c) zero economic profit  
 (d) all of these answers are correct
49. Which of the following is not a characteristic of a monopolistically competitive market?  
 (a) Free entry and exit  
 (b) Abnormal profits in the longrun  
 (c) Many sellers  
 (d) Differentiated products
50. In a very short period market :  
 (a) the supply is fixed  
 (b) the demand is fixed  
 (c) demand and supply are fixed  
 (d) none of the above
51. Time element was conceived by  
 (a) Adam Smith (b) Alfred Marshall  
 (c) Pigou (d) Lionel Robinson
52. Total revenue =  
 (a) price  $\times$  quantity (b) price  $\times$  income  
 (c) income  $\times$  quantity (d) none
53. Average revenue is the revenue earned  
 (a) per unit of input  
 (b) per unit of output  
 (c) different units of input  
 (d) different units of output
54. AR can be symbolically written as:  
 (a)  $MR / Q$  (b) price  $\times$  quantity  
 (c)  $TR / Q$  (d) none
55. AR is also known as:  
 (a) price (b) income  
 (c) revenue (d) none
56. Marginal revenue can be defined as the change in total revenue resulting from the:  
 (a) purchase of an additional unit of a commodity  
 (b) sales of an additional unit of a commodity  
 (c) sale of subsequent units of a product  
 (d) none of the above
57. When  $e > 1$  then MR is  
 (a) zero (b) negative  
 (c) positive (d) one
58. When  $e = 1$  then MR is  
 (a) positive (b) zero  
 (c) one (d) negative
59. When  $e < 1$  then MR is  
 (a) negative (b) zero  
 (c) positive (d) one
60. The term market refers to a:  
 (a) place where buyer and seller bargain a product or service for a price  
 (b) place where buyer does not bargain

- (c) place where seller does not bargain  
(d) none of the above
- 61.** In perfect competition firm is the-----  
-----  
(a) price maker and not price taker  
(b) price taker and not price maker  
(c) neither price maker nor price taker  
(d) none of the above
- 62.** A Monopolist is the price  
(a) maker (b) taker  
(c) adjuster (d) none
- 63.** Price discrimination is one of the features of ---  
(a) monopolistic competition  
(b) monopoly  
(c) perfect competition  
(d) oligopoly
- 64.** Under monopoly, degree of control over price is:  
(a) none (b) some  
(c) very considerable (d) none
- 65.** Generally, market for perishable like butter, eggs, milk, vegetables etc., will have  
(a) regional market (b) local market  
(c) national market (d) none
- 66.** Durable goods and industrial items exist in  
(a) local market (b) regional market  
(c) national market (d) secular market
- 67.** Secular period is also known as  
(a) very short period (b) short period  
(c) very long period (d) long period
- 68.** Stock exchange market is the example for  
(a) unregulated market  
(b) regulated market  
(c) spot market  
(d) none of the above
- 69.** The market for the ultimate consumers is known as  
(a) whole sale market  
(b) regulated market  
(c) unregulated market  
(d) retail market
- 70.** The condition for pure competition is  
(a) large number of buyer and seller, free entry and exist  
(b) homogenous product  
(c) both (a) and (b)  
(d) large number of buyer and seller, homogenous product, perfect knowledge about the product
- 71.** Pure oligopoly is based on the-----  
--- products  
(a) differentiated (b) homogeneous  
(c) unrelated (d) none
- 72.** In oligopoly, when the industry is dominated by one large firm which is considered as leader of the group. This is called:  
(a) full oligopoly  
(b) collusive oligopoly  
(c) partial oligopoly  
(d) syndicated oligopoly
- 73.** When the product are sold through a centralized body oligopoly is know as  
(a) organized oligopoly  
(d) partial oligopoly  
(c) competitive oligopoly  
(d) syndicated oligopoly
- 74.** When the monopolist divides the consumers into separate sub markets and charges different prices in different sub-markets it is known as  
(a) first degree of price discrimination  
(b) second degree of price discrimination  
(c) third degree of price discrimination  
(d) none of the above.
- 75.** Under ----- the monopolist will fix a price which will take away the entire consumers' surplus.  
(a) second degree of price discrimination  
(b) first degree of price discrimination  
(c) third degree of price discrimination  
(d) none of the above.
- 76.** Price discrimination is related to  
(a) time  
(b) size of the purchase  
(c) income  
(d) any of the above



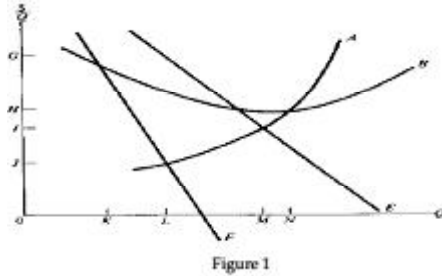
77. The firm and the industry are one and the same in \_\_\_\_\_
- Perfect competition
  - Monopolistic competition
  - Duopoly
  - Monopoly
78. The demand curve of a monopoly firm will be \_\_\_\_\_
- Upward sloping
  - Downward sloping
  - Horizontal
  - Vertical
79. If the average cost is higher than the average revenue then the firm incurs \_\_\_\_\_
- Normal profit
  - Abnormal profit
  - Loss
  - No profit, no loss
80. Which of the following statements is correct?
- Price rigidity is an important feature of monopoly.
  - Selling costs are possible under perfect competition.
  - Under perfect competition factors of production do not move freely as there are legal restrictions.
  - An industry consists of many firms.
81. Which of the following statements is incorrect?
- Under monopoly there is no difference between a firm and an industry.
  - A monopolist may restrict the output and raise the price.
  - Commodities offered for sale under a perfect competition will be heterogeneous.
  - Product differentiation is peculiar to monopolistic competition.

## HOME WORK

- In a free market economy, when consumers increase their purchase of a good and the level of \_\_\_\_\_ exceeds \_\_\_\_\_ then prices tend to rise.
  - demand, supply.
  - supply, demand
  - prices, demand
  - profits, supply.
- When \_\_\_\_\_, we know that the firms must be producing at the minimum point of the average cost curve and so there will be productive efficiency .
  - $AC = AR$
  - $MC = AC$
  - $MC = MR$
  - $AR = MR$
- In monopolistic competition, a firm is in long run equilibrium .....
  - at the minimum point of the LAC curve.
  - in the declining segment of the LAC curve.
  - in the rising segment of the LAC curve.
  - when price is equal to marginal cost.
- When the perfectly competitive firm and industry are in long run equilibrium then:
  - $P=MR=SAC=LAC$ .
  - $D=MR=SMC=LMC$ .
  - $P=MR=$ Lowest point on the LAC curve.
  - All of the above.
- In monopoly, the relationship between average and marginal revenue curves is as follows:
  - AR curve lies above the MR curve.
  - AR curve coincides with the MR curve.
  - AR curve lies below the MR curve.
  - AR curve is parallel to the MR curve.
- The sale of branded articles is common in a situation of \_\_\_\_\_.
  - excess capacity
  - monopolistic competition.
  - monopoly.
  - pure competition.
- A monopolist who is selling in two markets in which demand is not identical will be unable to maximize his profits unless he

- (a) Sells below costs of production in both markets.
- (b) Practices price discrimination.
- (c) Equates the volume of sales in both markets.
- (d) Equates marginal costs with marginal revenue in one market only.

Questions 8 to 12 are based on the Figure 1.



8. Figure 1 represents a
- (a) Perfectly competitive firm.
  - (b) Perfectly competitive industry.
  - (c) Monopolist
  - (d) None of the above.
9. In figure 1, the firm's marginal revenue curve is curve
- (a) E.
  - (b) A
  - (c) F
  - (d) B
10. In Figure 1, curve E is the firm's:
- (a) Marginal cost curve
  - (b) Average cost curve
  - (c) Demand curve.
  - (d) Marginal revenue curve
11. In figure 1, the firm's most efficient output is:
- (a) K
  - (b) L
  - (c) M
  - (d) N
12. In figure1, the firm's most profitable output is:
- (a) K
  - (b) L
  - (c) M
  - (d) N
13. In the short run if a perfectly competitive firm finds itself operating at a loss, it will:
- (a) reduce the size of its plant to lower fixed costs.
  - (b) raise the price of its product.
  - (c) shut down.

- (d) continue to operate as long as it covers its variable cost.
14. A competitive firm maximizes profit at the output level where:
- (a) price equals marginal cost.
  - (b) the slope of the firm's profit function is equal to zero.
  - (c) marginal revenue equals marginal cost.
  - (d) all of the above.
15. When a market is in equilibrium:
- (a) no shortages exist.
  - (b) quantity demanded equals quantity supplied.
  - (c) a price is established that clears the market.
  - (d) all of the above are correct.
16. Which of the following is correct?
- (a) If marginal revenue is positive and falling, total revenue will rise at a decreasing rate.
  - (b) Total revenue is equal to price times the quantity sold.
  - (c) Under perfect competition, total revenue is equal to marginal revenue times the quantity sold.
  - (d) All of the above.
17. Monopolies are allocatively inefficient because:
- (a) they restrict the output to keep the price higher than under perfect competition.
  - (b) they charge a price higher than the marginal cost.
  - (c) both (a) and (b) are correct.
  - (d) both (a) and (b) are incorrect.
18. Which of the following statements is incorrect?
- (a) If marginal revenue exceeds marginal cost the firm should increase output.
  - (b) If marginal cost exceeds marginal revenue the firm should decrease output.
  - (c) Economic profits are maximized when total costs are equal to total revenue.
  - (d) Profits are maximized when marginal revenue equals marginal cost.
19. If marginal revenue exceeds marginal cost, a monopolist should \_\_\_\_\_.

- (a) increase output.
- (b) decrease output.
- (c) keep output the same because profits are maximized when marginal revenue exceeds marginal cost.
- (d) raise the price.

20. In the long-run, some firms will exit the market if the price of the good offered for sale is less than:

- (a) marginal revenue.
- (b) marginal cost.
- (c) average total cost.
- (d) average revenue.

21. In the long run any firm will eventually leave the industry if:

- (a) price does not at least cover average total cost.
- (b) price does not equal marginal cost.
- (c) economies of scale are being reaped.
- (d) price is greater than long run average cost.

22. In the table below what will be equilibrium market price?

Price (₹)	Table	
	Demand (tonnes per annum)	Supply (tonnes per annum)
1	1000	400
2	900	500
3	800	600
4	700	700
5	600	800
6	500	900
7	400	1000
8	300	1100

- (a) ₹ 2
- (b) ₹ 3
- (c) ₹ 4
- (d) ₹ 5

23. If a competitive firm doubles its output, its total revenue:

- (a) doubles.

- (b) more than doubles.
- (c) less than doubles.
- (d) cannot be determined because the price of the good may rise or fall.

24. Which of the following is not an essential condition of pure competition ?

- (a) large number of buyers and sellers
- (b) homogeneous product
- (c) freedom of entry
- (d) absence of transport cost

25. The structure of the cold drink industry in India is best described as:

- (a) Perfectly competitive
- (b) Monopolistic
- (c) Oligopolistic
- (d) Monopolistically competitive

26. Under which market structure, average revenue of a firm is equal to its marginal revenue:

- (a) Oligopoly
- (b) Monopoly
- (c) Perfect competition
- (d) Monopolistic competition

27. If a seller realizes ₹ 10,000 after selling 100 units and ₹ 14,000 after selling 120 units. What is the marginal revenue here?

- (a) ₹ 4000
- (b) ₹ 450
- (c) ₹ 200
- (d) ₹ 100

28. Under which market condition, though the firms earn normal profits in the long run, there is always excess capacity with them:

- (a) Perfect competition
- (b) Monopoly
- (c) Oligopoly
- (d) Monopolistic competition

29. Which of the following statements is incorrect?

- (a) Even monopolist can earn losses
- (b) Firms in a perfectly competitive market are price takers
- (c) It is always beneficial for a firm in the perfectly competitive market to discriminate prices
- (d) Economic laws are less exact than the

- laws of physical sciences
- 30.** A monopolist is able to maximize his profits when:
- his output is maximum
  - he charges a high price
  - his average cost is minimum
  - his marginal cost is equal to marginal revenue
- 31.** What is the shape of the demand curve faced by a firm under perfect competition?
- Horizontal
  - Vertical
  - Positively sloped
  - Negatively sloped
- 32.** Which of the following is not a characteristic of a "Price taker"?
- $TR = PQ$
  - $AR = Price$
  - Negatively – sloped demand curve
  - Marginal Revenue = Price
- 33.** Which of the following is not a condition of perfect competition ?
- A large number of firms
  - Perfect mobility of factors
  - Informative advertising to ensure that consumers have good information
  - Freedom of entry and exit into and out of the market
- 34.** All of the following are characteristics of a monopoly except?
- there is a single firm
  - the firm is a price taker
  - the firm produces a unique product
  - the existence of some advertising
- 35.** Price discrimination will be profitable only if the elasticity of demand in different market in which the total market has been divided is:
- uniform
  - different
  - less
  - zero
- 36.** Agricultural goods markets depict characteristics close to:
- Perfect competition
  - Oligopoly
  - Monopoly
  - Monopolistic competition
- 37.** The kinked demand hypothesis is designed to explain in the context of oligopoly
- price and output determination
  - price rigidity
  - price leadership
  - collusion among rivals
- 38.** The structure of the tooth paste industry in India is best described as:
- perfectly competitive
  - monopolistic
  - monopolistically competitive
  - oligopolistic
- 39.** In perfect competition the firm's \_\_\_\_\_ above AVC has the identical shape of the firm's supply curve
- Marginal revenue curve
  - Marginal cost curve
  - Average cost curve
  - None of the above
- 40.** One characteristic not typical of oligopolistic industry is:
- too much importance to non-price competition
  - price leadership
  - horizontal demand curve
  - a small number of firms in the industry
- 41.** Under perfect competition price of the product
- can be controlled by individual firm
  - cannot be controlled by individual firm
  - can be controlled within certain limit by individual firm
  - none of the above
- 42.** Price leadership is form of -
- monopolistic competition
  - monopoly
  - non-collusive Oligopoly
  - perfect competition
- 43.** In a perfect competitive market :
- firm is the price-giver and industry the price taker
  - firm is the price taker and industry the price giver

- (c) both are the price takers  
(d) none of the above
- 44.** One of the essential conditions of perfect competition is -  
(a) product differentiation  
(b) multiplicity of prices for identical product at any one time.  
(c) many sellers and few buyers  
(d) only one price for identical goods at any one time
- 45.** A perfectly competitive firm producer has control over  
(a) price  
(b) production as well as price  
(c) control over production, price and consumers  
(d) none of the above
- 46.** By imperfect monopoly, we mean  
(a) It is possible to substitute the monopolized product with another monopolized product  
(b) Entry of new firms is possible to produce the same product  
(c) The amount of output produced is very small  
(d) None of the above
- 47.** The demand curve facing an industrial firm under monopoly is a/an -  
(a) horizontal straight line  
(b) indeterminate  
(c) downward sloping  
(d) upward sloping
- 48.** A monopoly producer usually earns \_\_\_\_\_ even in the long run  
(a) super normal profits  
(b) only normal profits  
(c) losses  
(d) none of the above
- 49.** Price discrimination is not possible :  
(a) under monopoly situation  
(b) under any market form  
(c) under monopolistic competition  
(d) under perfect competition
- 50.** Consumer's surplus left with the consumer under first degree price discrimination is :  
(a) maximum (b) minimum  
(c) zero (d) not predictable
- 51.** A firm under monopolistic competition advertises :  
(a) to compete successfully with the rival firms  
(b) to lower cost of production  
(c) to increase sales and profit  
(d) because it cannot raise price
- 52.** In short run, a firm in monopolistic competition  
(a) always earns profits  
(b) incurs losses  
(c) earns normal profit only  
(d) may earn normal profit, super normal profit or incur losses
- 53.** In long-run, all firms in monopolistic competition  
(a) earn super normal profits  
(b) earn normal profits  
(c) incur losses  
(d) may earn super normal profit, normal profit or incur losses
- 54.** Differentiated oligopoly is one where there are  
(a) many sellers producing homogeneous product  
(b) few sellers producing homogenous product  
(c) many sellers producing differentiated product  
(d) few sellers producing differentiated product
- 55.** The real determinant of the size of market in a country is the  
(a) income of its population  
(b) geographical area  
(c) size of its population  
(d) income of the government

- 56.** At shut down point :
- price is equal to AVC
  - total revenue is equal to TVC
  - total loss of the firm is equal to TFC
  - all of the above
- 57.** The conditions of long-period equilibrium for the firm operative under perfect competition are:
- MC = MR
  - AR = MR
  - AC = AR
  - AC = MC .
- (1) only
  - (1) and (2) only
  - (1), (2) and (3) only
  - (1), (2), (3) and (4)
- 58.** In a perfect competitive market
- firm is the price-giver and industry the price take
  - firm is the price taker and industry the price giver
  - both are the price – takers
  - none of the above
- 59.** 'Excess Capacity' is the essential characteristic of the firm in the market form of :
- monopoly
  - perfect competition
  - monopolistic competition
  - oligopoly
- 60.** In long run equilibrium the pure monopolist can make pure profits because of
- blocked entry
  - the high price he charges
  - the low LAC costs
  - advertising
- 61.** Which of the following statements is not true about a discriminating monopolist?
- He operates in more than one market
  - He makes more profit because he discriminates
  - He maximizes his profits in each market
  - He charges different prices in each market
- 62.** A firm under perfect competition will be making minimum losses (in the short run) at a point where:
- MC > MR
  - MR > MC
  - MC = MR
  - AC = AR
- 63.** Which of the following is not the feature of Perfect Competition?
- Large number of buyers and sellers
  - Small number of buyers and sellers
  - Free Entry and Exit
  - Goods is Homogeneous
- 64.** In the long run under which competition a firm may earn super normal profits?
- Monopolistic competition
  - Perfect competition
  - Oligopoly
  - Monopoly
- 65.** For the prices- taking firm:
- Marginal revenue is less than price
  - Marginal revenue is equal to price
  - Marginal revenue is greater than price
  - The relationship between marginal revenue and price is indeterminate
- 66.** A monopolist is able to maximize his profits when:
- His output is maximum
  - He charges high price
  - His average cost is minimum
  - His marginal cost is equal to marginal revenue
- 67.** In Imperfect competition:
- Excess capacity always exists
  - Excess capacity never exists
  - Excess capacity may or may not exist
  - None of the above
- 68.** In long run, in perfectly competitive market there will be :
- Normal profit
  - Super normal profits
  - Losses
  - None of the above
- 69.** In perfect competition utilization of resources is
- Partial
  - Moderate
  - Full
  - Over

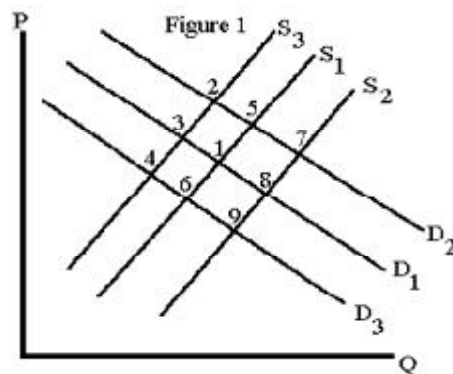
- 70.** Which of the following statements is false?  
 (a) For equilibrium the main condition is  $MC=MR$   
 (b) AR curve and Demand curve are same  
 (c) MC and AC curves are U-shaped in every market  
 (d) None of the above
- 71.** Product differentiation is the most important feature of:  
 (a) Monopolistic Competition  
 (b) Monopoly  
 (c) Oligopoly  
 (d) Perfect Completion
- 72.**  $MC=MR$  and MC cuts MR from below is a true equilibrium condition in:  
 (a) Short run  
 (b) Long run  
 (c) Both in short run and long run  
 (d) None of the above
- 73.** Price discrimination occurs when:  
 (a) Producer sells a specific commodity or service to different buyers for the same price  
 (b) Producer sells specific commodity or service to different buyers at two or more different prices due to differences in cost  
 (c) Producer sells a specific commodity or service to different buyers at two or more different prices for reasons not associated with difference in cost  
 (d) Producer under perfect competition sells different goods to consumers at different prices
- 74.** Relationship between AR, MR and Price elasticity of demand is  
 (a)  $MR = AR + [e - 1/e]$   
 (b)  $MR = AR \times [e - 1/e]$   
 (c)  $AR = MR \times [e - 1/e]$   
 (d)  $MR = AR \times [e/e - 1]$
- 75.** In a perfectly competitive firm, MC curve above AVC is the \_\_\_\_\_ Curve of the firm  
 (a) average cost  
 (b) marginal revenue  
 (c) demand  
 (d) supply
- 76.** Price discrimination is not possible:  
 (a) Under Monopoly  
 (b) Under Monopolistic competition  
 (c) Under perfect competition  
 (d) Under any market firm
- 77.** In perfect competition in the long run there will be \_\_\_\_\_.  
 (a) Normal Profits  
 (b) Super Normal Profit  
 (c) Less production  
 (d) Cost will be falling
- 78.** Which of the following statements is correct?  
 (a) Monopolist can earn only profits  
 (b) Firms in a perfectly competitive market are price maker  
 (c) Industry in a perfectly competitive market is a price taker  
 (d) AR curve and demand curve are same
- 79.** Soap industry is an example of:  
 (a) Oligopoly  
 (b) Perfect competition  
 (c) Monopolistic competition  
 (d) Monopoly
- 80.** A purely competitive firm's supply schedule in the short run is determined by:  
 (a) Its average revenue  
 (b) Its marginal revenue  
 (c) Its marginal cost curve  
 (d) Marginal utility for money curve
- 81.** In which form of the market structure is the degree of control over the price of its product by a firm is very large?  
 (a) Imperfect competition  
 (b) Monopoly  
 (c) Oligopoly  
 (d) Perfect competition
- 82.** For the Price taking firm:  
 (a) Marginal Revenue is less than price  
 (b) Marginal revenue is greater than price  
 (c) The relationship between marginal revenue and price is not clear  
 (d) Marginal revenue is equal to average revenue

83. If the market price drops from Rs. 100 to Rs. 56 per unit and the AVC becomes Rs.49, the firm's short run response should be
- Shut down
  - Produce 5 units
  - Produce 20 units
  - Continue to produce the same number of units as before the drop in price
84. Under which market structure, average revenue of a firm is equal to its marginal revenue
- Monopoly
  - Monopolistic competition
  - Oligopoly
  - None of the above
85. At shut down point:
- Price is equal to AVC
  - Total revenue is equal to TVC
  - Total loss of the firm is equal to TFC
  - All of the above
86. Suppose the total cost of production of commodity x is ₹ 1,25,000. Out of this implicit cost is ₹ 35,000 and normal profit is ₹ 25,000. What will be explicit cost of commodity x ?
- ₹ 90,000
  - ₹ 60,000
  - ₹ 65,000
  - ₹ 1,00,000
87. Excess Capacity is the essential characteristic of the firm in the market form of:
- Monopoly
  - Perfect competition
  - Monopolistic competition
  - Oligopoly
88. Which of the following is incorrect?
- The shape of the average cost and marginal cost curve is 'U'
  - The AR and MR curves of a firm under perfect competition are parallel to X-axis.
  - At Equilibrium  $AR=MR$
  - At Equilibrium  $MC=MR$
89. A condition needed for a perfectly competitive industry to exist is that:
- Buyers are able to influence the price of the commodity
  - Any units of commodity are considered by buyers to be different
  - Buyer discriminates in their purchases based on non-price factors.
  - There are no obstacles to the free mobility of resources.
90. If after selling 10 units, a seller realises ₹ 12,000 and after selling 15 units he realises ₹ 20,000 what is the marginal revenue here?
- ₹ 1500
  - ₹ 1600
  - ₹ 8000
  - ₹ 2000
91. Under which market structure, the control of firm over price is nil?
- Perfect competition
  - Monopoly
  - Oligopoly
  - Monopolistic Competition
92. In the long run, a firm in monopolistic competition:
- Always earns super profits
  - Incurs losses
  - Earns normal profit only
  - May earn normal profits, super normal profits or incur losses.
93. Suppose a firm is producing at level of output, such that  $MR > MC$  what should be the firm do to maximise profit?
- The firm should increase output
  - The firm should do nothing
  - The firm should hire less labour
  - The firm should decrease price
94. Marginal Revenue is equal to
- Change in quantity, divided by the change in price
  - Change in price divided by change in output
  - The change in  $P \times Q$  due to a one unit change in output
  - None of above
95. What is the shape of A R curve faced by a firm under perfect competition?
- Horizontal
  - Vertical
  - Positively sloped
  - Negatively sloped



96. Which of the following is the condition for equilibrium of a firm?  
 (a)  $AC = AR$  (b)  $MR = AR$   
 (c)  $MC = MR$  (d)  $AC = MR$
97. All are features of monopoly except:  
 (a) There is a single seller  
 (b) The firm is a price taker  
 (c) The firm produces a unique product  
 (d) The existence of some advertising
98. A monopolist is able to maximize his profits when:  
 (a) His output is maximum  
 (b) He charges a higher price  
 (c) His average cost is minimum  
 (d) His marginal cost is equal to marginal revenue
99. In the long run monopolistic competitive firm has:  
 (a) Excess Capacity (b) Excess Profits  
 (c) Zero Fixed cost (d) All of the above
100. Which of the following is not a characteristic of a price taker?  
 (a) Positively sloped demand curve  
 (b)  $TR = P \times Q$   
 (c)  $AR = \text{Price}$   
 (d)  $\text{Marginal Revenue} = \text{Price}$
101. MR curve and AR curves coincide in  
 (a) Monopoly  
 (b) Monopolistic Competition  
 (c) Oligopoly  
 (d) Perfect Competition

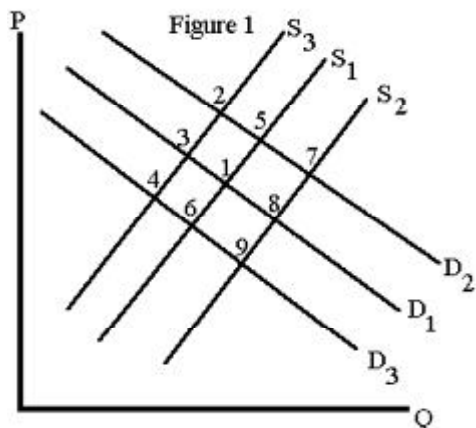
**Questions 102 to 105** are based on the demand and supply diagrams in Figure 1.  $S_1$  and  $D_1$  are the original demand and supply curves.  $D_2$ ,  $D_3$ ,  $S_2$  and  $S_3$  are possible new demand and supply curves. Starting from initial equilibrium point(1) what point on the graph is most likely to result from each change?



102. Assume X is a normal good. Holding everything else constant, assume that income rises and the price of a factor of production also increases. What point in Figure 1 is most likely to be the new equilibrium price and quantity?  
 (a) Point 9 (b) Point 5  
 (c) Point 3 (d) Point 2.
103. We are analyzing the market for good Z. The price of a complement good, good Y, declines. At the same time, there is a technological advance in the production of good Z. What point in Figure 1 is most likely to be the new equilibrium price and quantity?  
 (a) Point 4. (b) Point 5  
 (c) Point 7 (d) Point 8
104. Heavy rains in Maharashtra during 2005 and 2006 caused havoc with the rice crop. What point in Figure 1 is most likely to be the new equilibrium price and quantity?  
 (a) Point 6 (b) Point 3  
 (c) Point 7 (d) Point 8
105. Assume that consumers expect the prices on new cars to significantly increase next year. What point in Figure 1 is most likely to be the new equilibrium price and quantity?  
 (a) Point 6 (b) Point 5  
 (c) Point 3 (d) Point 8
106. What combinations of changes would most likely decrease the equilibrium quantity?  
 (a) When supply increases and demand decreases.  
 (b) When demand increases and supply decreases

- (c) When supply increases and demand increases.
- (d) When demand decreases and supply decreases.

**Questions 107 to 111** are based on the demand and supply diagrams in Figure 1. S1 and D1 are the original demand and supply curves. D2, D3, S2 and S3 are possible new demand and supply curves. Starting from initial equilibrium point (1) what point on the graph is most likely to result from each change?



- 107.** If Figure 1 represents the market for Perk (chocolates), the initial equilibrium is at the intersection of S1 and D1. The new equilibrium if there is an increase in the price of Dairy milk (chocolates) will be:
  - (a) Point 3                      (b) Point 5
  - (c) Point 4                      (d) Point 2
- 108.** In Figure 1 (which represents the market for Perk (chocolates), the initial equilibrium is at the intersection of S1 and D1. The new equilibrium if there is rapid economic growth but cost of labour producing Perk also rises:
  - (a) Point 3                      (b) Point 9
  - (c) Point 2                      (d) Point 6
- 109.** In Figure 1(which represents the market for Perk), the initial equilibrium is at the intersection of S1 and D1. The new equilibrium if there is a health scare about the effect chocolates may have is:
  - (a) Point 2                      (b) Point 9
  - (c) Point 3                      (d) Point 6

- 110.** In Figure 1(which represents the market for Perk), the initial equilibrium is at the intersection of S1 and D1. Assuming that there is a new technology for producing Perk, the new equilibrium:
  - (a) Point 8                      (b) Point 7
  - (c) Point 3                      (d) Point 6
- 111.** In Figure 1(which represents the market for Perk), the initial equilibrium is at the intersection of S1 and D1. Assume that there is an increase in the productivity and at the same time the price of 5 star(chocolates) falls. The new equilibrium will be:
  - (a) Point 2                      (b) Point 9
  - (c) Point 3                      (d) Point 6
- 112.** In India which of the following best describes a perfectly competitive market ?
  - (a) Sugarcane Cultivation
  - (b) Indian Railways
  - (c) Toilet Soap Industry
  - (d) Electricity Distribution
- 113.** In India, Monopoly exists in the following industry -
  - (a) Courier Services
  - (b) Internet Services providing industry
  - (c) Rail Transportation
  - (d) Toilet Soaps Industry
- 114.** In the long-run, Industry Equilibrium is achieved in Monopolistic Competition only at the lowest point of LAC Curve. This statement is
  - (a) True                          (b) False
  - (c) Partially True              (d) None
- 115.** Under Oligopoly, if one Firm reduces its prices, the other Firms will generally -
  - (a) reduce their prices
  - (b) increase their prices
  - (c) not react at all
  - (d) exit the market
- 116.** Which of the following most closely approximates the definition of an Oligopoly ?
  - (a) Tobacco Industry
  - (b) Vehicle manufacturers in India
  - (c) Rice Producers
  - (d) Readymade Garments units in a city

Production (Q)	Price per unit (P)	Total Cost (TC)	Variable Cost (VC)	Marginal Cost (per unit) (MC)	Total Revenue (TR)	Marginal Revenue (per unit) (MR)
0	130	45	0	-		-
1	124	88				
2	118	125				
3	112	159				
4	106	193				
5	100	230				
6	94	273				
7	88	325				
8	82	389				
9	76	465				

- 117.** When production equals 4 units, the firm's:
- (a) fixed cost is 100 and its variable cost is 93.
  - (b) fixed cost is 193 and its variable cost is 0.
  - (c) fixed cost is 0 and its variable cost is 193.
  - (d) fixed cost is 45 and its variable cost is 148.
- 118.** When production equals 5 units, the firm's total revenue is:
- (a) ₹ 100
  - (b) ₹ 270
  - (c) ₹ 324
  - (d) ₹ 500
- 117.** When production equals 6 units, the firm's marginal revenue is:
- (a) ₹ 384
  - (b) ₹ 94
  - (c) ₹ 64
  - (d) ₹ 2
- 118.** When production equals 7 units, the firm's profit is:
- (a) ₹ 0
  - (b) ₹ 41.57
  - (c) ₹ 291
  - (d) ₹ 336
- 119.** To maximize its profit, the firm should produce:
- (a) 0 units
  - (b) 3 units
  - (c) 5 units
  - (d) 7 units

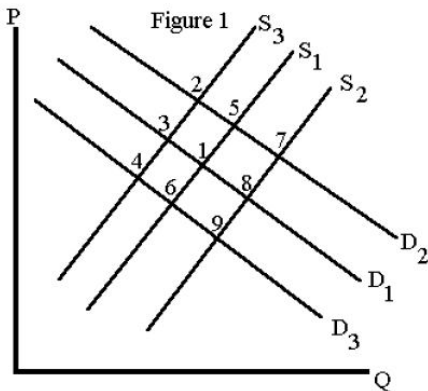
**Use Table 1 to answer questions 120 - 123**

Table 1

Quantity	Average Fixed cost	Average Total cost	Marginal cost
0	-	-	-
1	80.00	100.00	20
2	40.00	58.00	17
3	26.66	44.00	15
4	20.00	36.25	13
5	16.00	31.40	12
6	13.33	28.33	13
7	11.42	26.29	14
8	10.00	26.13	25
9	8.88	26.56	30
10	8.00	27.30	34
11	7.27	28.45	40
12	6.66	30.00	47
13	6.15	31.92	55

- 120.** Refer to Table 1 which lists the average costs of a perfectly competitive firm. If the price of the good is ₹ 13, the firm will be produce
- (a) 4 units at a loss of ₹ 93
  - (b) 6 units at a loss ₹ 92
  - (c) zero units at a loss of ₹ 80
  - (d) 8 units at a profit of ₹ 9
- 121.** Refer to the competitive firm in Table 1. If the market price is ₹ 31, the firm will produce:
- (a) 9 units at an economic profit of ₹ 40
  - (b) 10 units at an economic profit of ₹ 67
  - (c) 9 units at an economic profit of ₹ 81.
  - (d) Zero units of output and lose its fixed cost.
- 122.** In Table 1, if price is ₹ 26, the perfectly competitive firm will:
- (a) shut down in the short run.
  - (b) produce 8 units at an economic loss of ₹ 9.
  - (c) produce 9 units at an economic loss of ₹ 5.
  - (d) produce 8 units at an economic loss of ₹ 1.04.
- 123.** In Table 1, if price is ₹ 34, the perfectly competitive firm will:
- (a) shut down
  - (b) produce 10 units
  - (c) produce 11 units
  - (d) produce 13 units.

Questions 124 to 128 are based on the demand and supply diagrams in Figure 1. S1 and D1 are the original demand and supply curves. D2, D3, S2 and S3 are possible new demand and supply curves. Starting from initial equilibrium point (1) what point on the graph is most likely to result from each change?



- 124. If Figure 1 represents the market for Perk (chocolates), the initial equilibrium is at the intersection of S1 and D1. The new equilibrium if there is an increase in the price of Dairy milk (chocolates) will be:  
 (a) Point 3 (b) Point 5  
 (c) Point 4 (d) Point 2
- 125. In Figure 1 (which represents the market for Perk (chocolates), the initial equilibrium is at the intersection of S1 and D1. The new equilibrium if there is rapid economic growth but cost of labour producing Perk also rises:  
 (a) Point 3 (b) Point 9  
 (c) Point 2 (d) Point 6
- 126. In Figure 1(which represents the market for Perk), the initial equilibrium is at the intersection of S1 and D1. The new equilibrium if there is a health scare about the effect chocolates may have is:  
 (a) Point 2 (b) Point 9  
 (c) Point 3 (d) Point 6
- 127. In Figure 1(which represents the market for Perk), the initial equilibrium is at the intersection of S1 and D1. Assuming that there is a new technology for producing Perk, the

new equilibrium:

- (a) Point 8 (b) Point 7
  - (c) Point 3 (d) Point 6
128. In Figure 1(which represents the market for Perk), the initial equilibrium is at the intersection of S1 and D1. Assume that there is an increase in the productivity and at the same time the price of 5 star(chocolates) falls. The new equilibrium will be:  
 (a) Point 2 (b) Point 9  
 (c) Point 3 (d) Point 6

Table 4 provides cost and price information for a firm called Comfy Cushions (CC). The firm produces and sells cushions using a fixed amount of capital equipment but can change the level of inputs such as labour and materials. Read Table 4 and answer questions 129-135

Table 4

Production (Q)	Price per unit (P)	Total cost (TC)	Average total cost (ATC)	Marginal cost (MC)	Total revenue (TR)	Marginal Revenue per unit (MR)
0	250	500				
1	240	730				
2	230	870				
3	220	950				
4	210	1010				
5	200	1090				
6	190	1230				
7	180	1470				
8	170	1850				
9	160	2410				

- 129. What is the value of fixed cost incurred by CC?  
 (a) ` 250 (b) ` 730  
 (c) ` 500 (d) can not be determined.
- 130. What is the average total cost when 5 units are produced?  
 (a) ` 218 (b) ` 1090  
 (c) ` 730 (d) ` 210
- 131. What is the marginal revenue (per unit) when production increases from 7 units to 8 units?  
 (a) 160 (b) 140  
 (c) 120 (d) 100

132. What is the marginal cost when production increases from 3 to 4 units?  
 (a) 140 (b) 80  
 (c) 60 (d) 240
133. To maximize its profit or minimize its loss, what level of production should CC choose?  
 (a) 7 units (b) 6 units  
 (c) 4 units (d) 8 units
134. At the profit maximizing level, what price should be charged?  
 (a) ₹ 190 (b) ₹ 200  
 (c) ₹ 210 (d) ₹ 220
135. Calculate CC's maximum profit or minimum loss.  
 (a) Loss of ₹ 100 (b) Loss of Rs 60  
 (c) Profit of ₹ 90 (d) Loss of ₹ 90

**A competitive firm sells as much as of its product as it chooses at a market price of ₹ 200 per unit. Its fixed cost is ₹ 600 and its variable costs (in rupees) for different levels of production are shown in the following table. Use Table 2 to answer questions 136-140.**

Table 2

Quantity	Variable cost	Fixed cost	Total cost	Average variable cost	Average total cost	Marginal cost
0	0			-	-	-
5	500					
10	940					
15	1400					
20	1960					
25	2700					
30	3700					
35	5040					
40	6800					
45	9060					
50	11900					

136. When production is 40 units, the average total cost is  
 (a) ₹ 8.80 (b) ₹ 15  
 (c) ₹ 170 (d) ₹ 185
137. In the table marginal cost per unit that corresponds to 40 units of production is  
 (a) ₹ 44 (b) ₹ 170  
 (c) ₹ 352 (d) ₹ 1760
138. To maximize profit, the firm should produce

- (a) 15 units (b) 30 units  
 (c) 35 units (d) 50 units
139. If the market price drops from ₹ 200 to ₹ 112, the firm's short run response should be  
 (a) shut down  
 (b) produce 5 units  
 (c) produce 20 units  
 (d) continue to produce the same number of units as before the drop in price.
140. If the market price rises from ₹ 200 to ₹ 352, the firm's short run response should be  
 (a) shut down  
 (b) produce 40 units  
 (c) produce 20 units  
 (d) continue to produce the same number of units as before the increase in price.

**A competitive firm sells his product at market price of ₹ 51 per unit. The fixed cost is ₹ 300 and variable cost for different level of production are shown in the following table 2. Use table No.2 to answer questions 141 – 144.**

Table 2

Quantity	Variable cost	Fixed cost	Total Cost	AVC	ATC	MC
0	0					
10	470					
20	980					
30	1850					
40	3400					
50	5950					

141. When production is 30 units, the average variable cost is:  
 (a) 70.6 (b) 60.6  
 (c) 61.6 (d) 71.6
142. When production is 50 units, marginal cost is:  
 (a) 265 (b) 255  
 (c) 245 (d) 275
143. To maximize profit, the firm should produce  
 (a) 30 units (b) 10 units  
 (c) 20 units (d) 40 units
144. If the market price drops from ₹ 51 to ₹ 47; the firm should  
 (a) Close down (b) produce 10 units  
 (c) Produce 30 units (d) Produce 20 units

**A competitive firm sells as much as of its product it chooses at a market price of ₹ 100 per unit. Its fixed**

cost is ₹ 300 and its variable costs (in rupees) for different levels of production are shown in the following table. Use table 1 to answer questions 145-148.

**Table No.1**

Quantity	Variable cost	Fixed Cost	Total Cost	Average Variable Cost	Average Total Cost	Marginal cost
0	0	-	-	-	-	-
5	270					
10	490					
15	720					
20	1000					
25	1370					
30	1870					
35	2540					
40	3420					
45	4550					
50	5970					

- 145. When production is 35 units, the average variable cost is  
 (a) ₹ 7.25 (b) ₹ 72.25  
 (c) ₹ 72.57 (d) ₹ 85.50
- 146. In the table marginal cost per unit that corresponds to 25 units of production is  
 (a) ₹ 3.50 (b) ₹ 74  
 (c) ₹ 450 (d) ₹ 370
- 147. To maximize output, the firm should produce  
 (a) 30 (b) 35  
 (c) 45 (d) 50
- 148. If the market price drops from ₹ 100 to ₹ 74, the firm short run response should be  
 (a) continue to produce the same number of units as before the drop in price  
 (b) produce 10 units  
 (c) produce 20 units  
 (d) produce 25 units

**Use table to answer question 149-152**

Mohan sweets is a small restaurant and a price taker. The table below provides the data of Mohan's Sandwich output and costs in Rupees

Quantity	TC	TFC	TVC	AVC	AC	MC
0	100					
10	210					
20	300					
30	400					
40	540					
50	790					
60	1060					

- 149. If Sandwiches are being sold for ₹ 14 each, what is Mohan's profit maximising level of output?  
 (a) 10 Sandwiches (b) 40 Sandwiches  
 (c) 50 Sandwiches (d) 60 Sandwiches
- 150. What is the total variable cost when 60 sandwich are produced?  
 (a) ₹ 690 (b) ₹ 960  
 (c) ₹ 110 (d) ₹ 440
- 151. What is average fixed cost when 20 sandwiches are produced?  
 (a) ₹ 5 (b) ₹ 3.33  
 (c) ₹ 10 (d) ₹ 2.5
- 152. Between 10 to 20 sandwiches, what is the marginal cost per sandwich?  
 (a) ₹ 11 (b) ₹ 13  
 (c) ₹ 14 (d) ₹ 9
- 153. By market is meant :  
 (a) A special place  
 (b) Mutual relation between buyers and sellers  
 (c) Groups of shops  
 (d) None of these.
- 154. State the one that is not feature of the perfect competition :  
 (a) Large number of buyers & sellers  
 (b) Identical goods  
 (c) Divisibility and mobility  
 (d) Selling costs.
- 155. State the period in which output can be changed according to change in demand:  
 (a) Market period (b) Short period  
 (c) Long period (d) Secular period.

- 156.** State the one that is a feature of monopolistic competition:  
(a) More sellers (b) More buyers  
(c) Selling costs (d) All these.
- 157.** If there are two sellers of product, this market situation is called  
(a) Perfect competition  
(b) Oligopoly  
(c) Duopoly  
(d) Bilateral monopoly
- 158.** State the market, where there is one seller of the product  
(a) Monopoly  
(b) Short period  
(c) Duopoly  
(d) Perfect competition.
- 159.** If in a market, there are a few sellers, this market is called  
(a) Monopsony (c) Duopoly  
(c) Monopoly (d) Oligopoly.
- 160.** There are a few brands of Tooth Paste each company is selling its own product at slightly different prices. You would call this market?  
(a) Monopsony  
(b) Oligopoly  
(c) Perfect competition  
(d) Monopolistic competition.
- 161.** State the market when firm is price-taker and industry is price maker:  
(a) Monopoly  
(b) Monopolistic competition.  
(c) Oligopoly  
(d) Perfect competition
- 162.** Price discrimination is possible only under  
(a) Duopoly  
(b) Bilateral monopoly  
(c) Monopoly  
(d) Oligopoly.
- 163.** Perfect competition is  
(a) myth  
(b) reality  
(c) neither myth nor reality  
(d) both myth as well as reality.
- 164.** Under imperfect competition entry and exit of firms are:  
(a) free  
(b) restricted  
(c) free as well as restricted  
(d) none of the above.
- 165.** Under Perfect competition entry and exit of firms into and from industry are:  
(a) free  
(b) restricted  
(c) free as well as restricted  
(d) neither free nor restricted.
- 166.** Which of the following is the feature of Perfect Competition?  
(a) large number of buyers and sellers  
(b) restricted entry and exit of firms  
(c) transportation costs  
(d) imperfect knowledge of the market.
- 167.** In which market, there is a single seller?  
(a) Monopoly  
(b) Perfect competition  
(c) Imperfect competition  
(d) Oligopoly.
- 168.** If there are two concerns selling cooking gas in a market, what kind of market is it?  
(a) Oligopoly  
(b) Monopolistic competition  
(c) Monopoly  
(d) Duopoly.
- 169.** Who determines price under monopoly?  
(a) Firm (b) Govt.  
(c) Industry (d) None of these
- 170.** Under monopoly, the producer aims at :  
(a) Maximum profits  
(b) Normal profits  
(c) Maximum sales  
(d) To avoid losses.
- 171.** What does a firm under monopolistic competition get in the short period ?  
(a) Normal profit  
(b) Super-normal profits  
(c) Losses  
(d) All the three

- 172.** Under Oligopoly there is not one \_\_\_\_\_ solution :
- (a) Determinate (b) Indeterminate  
(c) Earned super normal profit  
(d) No profit.
- 173.** By revenue we mean :
- (a) Income from the sale of goods  
(b) Quantity of a good  
(c) Expenditure on the production of goods  
(d) None of these.
- 174.** For getting total revenue, the formula is :
- (a)  $AR \times q$  (b)  $\frac{AR}{q}$   
(c)  $TR + q$  (d)  $\frac{TR}{q}$
- 175.** Give the formula which states AR
- (a)  $[TR_N] - [TR_{N-1}]$  (b)  $\frac{TR}{q}$   
(c)  $\frac{\Delta TR}{\Delta q}$  (d)  $MR + q$
- 176.** Marginal Revenue can be calculated by the formula :
- (a)  $\frac{TR}{Q}$  (b)  $\frac{MR}{Q}$   
(c)  $\frac{\Delta TR}{\Delta Q}$  (d)  $AR \times Q$
- 177.** When Marginal revenue is zero, the total revenue will be:
- (a) Negative (b) Positive  
(c) Zero (d) maximum.
- 178.** When Total revenue is maximum the marginal revenue will be:
- (a) Zero (b) Negative  
(c) maximum (d) Positive
- 179.** When Marginal Revenue is negative, the average revenue will be:
- (a) Negative. (b) Positive  
(c) Zero (d) maximum
- 180.** Average Revenue can be:
- (a) Positive (b) Negative  
(c) Zero (d) Maximum.
- 181.** Marginal Revenue can be:
- (a) Positive (b) Negative  
(c) Zero (d) All the three.
- 182.** Marginal Revenue and Average Revenue under perfect competition are:
- (a) Equal (b) not equal  
(c) Falling curves (d) rising curves.
- 183.** Marginal revenue and average revenue curves under monopoly are:
- (a) Parallel to OX-axis  
(b) Parallel to OY-axis  
(c) Falling curves  
(d) Rising curves.
- 184.** If  $MR < 0$ , AR will be:
- (a) Also negative (b) Positive  
(c) Maximum (d) Minimum.
- 185.** In case of perfect competition, average revenue curve is:
- (a) Downward sloping  
(b) Upward sloping  
(c) Parallel to X-axis  
(d) Parallel to Y-axis.
- 186.** Pure competition means when there is absence of:
- (a) Oligology (b) Monopolistic  
(c) Monopoly (d) None
- 187.** Prices and market equilibrium are determined under perfect competition when :
- (a) Demand equals supply  
(b) Demand increases and supply remains equal  
(c) Demand remains constant and supply increases  
(d) None
- 188.** Under perfect competition, the marginal cost curve, at equilibrium will be :
- (a) Constant (b) Rising  
(c) Falling (d) None
- 189.** Normal price is the price that prevails in:
- (a) Market period (b) Short-period  
(c) Long period (d) Secular period



- 190.** Market price is the price that prevails in:  
 (a) Short period (b) Long period  
 (c) Secular period (d) None
- 191.** Equilibrium price is determined by both demand and supply is said by whom:  
 (a) Jevons (b) Ricardo  
 (c) Adam Smith (d) Marshall.
- 192.** Equilibrium price is determined by:  
 (a) Demand only  
 (b) Supply only  
 (d) Both by demand and supply.  
 (c) None of these
- 193.** Demand remaining the same, if supply increases price will :  
 (a) Fall (b) Rise  
 (c) Remain constant (d) Vary.
- 194.** Supply remaining the same, if demand falls, price will :  
 (a) Remain the same (b) Vary  
 (c) Rise (d) Fall.
- 195.** Demand remaining the same, if supply falls, price will :  
 (a) Fall (b) Rise  
 (c) Remain constant (d) Vary.
- 196.** Supply remaining the same, if demand rises, price will  
 (a) Remain the same (b) Vary  
 (c) Rise (d) Fall.
- 197.** When demand and supply increase at the same time but increase in demand is greater than the increase in supply, the price will:  
 (a) Rise (b) Fall  
 (c) Will remain constant (d) Fluctuate.
- 198.** When supply and demand both increase in equal measure then output will:  
 (a) Fall (b) Rise  
 (c) Will not change (d) Fluctuate.
- 199.** In which time period Market Price is determined  
 (a) Very short period  
 (b) Short period  
 (c) Very long period  
 (d) Secular period.
- 200.** What can a monopolist get in the short run :  
 (a) Super-normal profits  
 (b) Normal profits  
 (c) Losses  
 (d) All the three.
- 201.** What can a monopolist get in the long run:  
 (a) Super-normal profits  
 (b) Normal profits  
 (c) Losses  
 (d) All the these.
- 202.** For equilibrium, monopolist should have:  
 (a)  $MR = MC$  (b)  $MC > MR$   
 (c)  $MR > MC$  (d)  $MC = 0$
- 203.** Under discriminating monopoly, monopolist charges:  
 (a) Different prices  
 (b) Same prices  
 (c) No price  
 (d) One price but Sells only different levels of output.
- 204.** Under monopoly, the producer aims at:  
 (a) Maximum super normal profit  
 (b) Normal profits  
 (c) Maximum sales  
 (d) To avoid losses.
- 205.** Under discriminating monopoly, the monopolist aims at:  
 (a) Normal profits  
 (b) Maximum sales  
 (c) To avoid losses  
 (d) None of these.
- 206.** Monopoly means:  
 (a) a seller of a product in the world  
 (b) a seller of a product in India  
 (c) a seller of a product in a town or city  
 (d) a single seller of a product in a single market.
- 207.** Which of the following conditions is necessary for equilibrium output under imperfect competition?  
 (a)  $MR = MC$  (b)  $MC > MR$   
 (c)  $MC < MR$  (d)  $MR = 1$

- 208.** Which of the following is not the condition of monopolistic competition?  
 (a) More sellers (b) More buyers.  
 (c) Identical goods (d) Selling costs.
- 209.** What does a firm under monopolistic competition get in the short period?  
 (a) Normal profit  
 (b) Super normal profits  
 (c) Losses  
 (d) All the three.
- 210.** What does a firm under monopolistic competition get in the long period?  
 (a) Normal profits  
 (b) Super-normal profits  
 (c) Losses  
 (d) All the three.
- 211.** In the long run, under monopolistic competition, price is:  
 (a) Equal to (0)  
 (b) more than (0)  
 (c) Less than average cost.  
 (d) equal to AC
- 212.** Under monopolistic competition, a firm is in equilibrium when:  
 (a)  $AC=AR$  (b)  $AR>AC$   
 (c)  $AC<AR$  (d)  $MC=MR$ .
- 213.** Under monopolistic competition, losses occur when:  
 (a)  $AR<AC$  (b)  $MR=MC$   
 (c)  $AR=AC$  (d)  $AR>AC$
- 214.** Under monopolistic competition, super-normal profits arise when:  
 (a)  $AR>AC$  (b)  $AR<AC$   
 (c)  $MR=MC$  (d)  $AR=AC$
- 215.** Under monopolistic competition, normal profits accrue when:  
 (a)  $AR>AC$  (b)  $AR=AC$   
 (c)  $MR=MC$  (d)  $AR<AC$
- 216.** In monopolistic competition, we have:  
 (a) few firms selling a differentiated product  
 (b) many firms selling a homogeneous product  
 (c) few firms selling a homogeneous product.  
 (d) many firms selling a differentiated product
- 217.** Monopolistic competition differs from perfect competition due to:  
 (a) Small number of firms and homogeneous products  
 (b) Large number of firms and heterogeneous products -  
 (c) Small number of firms and similar products  
 (d) Large number of firms and similar products.
- 218.** In the long run for all monopolistic competitive firms:  
 (a)  $MR=AR$  (b)  $Price=MR=MC$   
 (c)  $Price=AC$  (d) None
- 219.** Which of the following is incorrect?  
 (a) The shape of the average cost and marginal cost curves is 'U' shaped.  
 (b) The AR and MR curves of a firm under perfect competition are parallel to 'X' - axis.  
 (c) At equilibrium of a firm,  $MC=MR$ .  
 (d) The necessary condition for equilibrium of a firm is  $AR=AVC$
- 220.** Under which of the following forms of market structure does a firm have no control over the price of its product?  
 (a) Monopolistic competition  
 (b) Perfect competition  
 (c) Monopoly  
 (d) Oligopoly
- 221.** Kinked demand curve in Oligopoly market explains:  
 (a) price leadership  
 (b) price and output determination  
 (c) price rigidity  
 (d) collusion among rival firms
- 222.** Under monopoly;  
 (a)  $MR=AR$  (b)  $MR>AR$   
 (c)  $MR<AR$  (d)  $MR=AR=Zero$
- 223.** Under monopolistic competition in long run firm earns :  
 (a) Normal profit (b) Abnormal profit  
 (c) Negative profit (d) No profit
- 224.** Demand curve of a firm is indeterminate under :  
 (a) Perfect competition

- (b) Monopoly market  
(c) Monopolistic market  
(d) Oligopoly market
- 225.** Price discrimination is profitable when elasticities of demand in different market are  
(a) One (b) Zero  
(c) Different (d) Less
- 226.** Which is the first order condition for the profit of a firm to be maximum ?  
(a)  $AR = AC$  (b)  $MR = MC$   
(c)  $MR = AR$  (d)  $AC = MR$
- 227.** At the shut down point, where  $p$  represents price  
(a)  $P = AC$  (b)  $P = AVC$   
(c)  $R = RC$  (d)  $P = AFC$
- 228.** The short-run supply curve of the perfectly competitive firm is given by :  
(a) The rising portion MC curve over and above the shut-down point  
(b) The rising portion MC curve over and above AC curve  
(c) The rising portion MC curve over and above the break-even point  
(d) The rising portion of MC curve
- 229.** When demand curve is elastic under monopoly, the MR is :  
(a) 1 (b) Positive  
(c) 0 (d) Negative
- 230.** In long run pure monopolist can make pure profits because of :  
(a) Blocked entry  
(b) Advertising  
(c) The high price he charges  
(d) His low long run AC
- 231.** In the short run a firm will keep on producing is  
(a)  $Price < AVC$  (b)  $Price < AFC$   
(c)  $Price > MC$  (d)  $Price > AVC$
- 232.** Selling costs are found in  
(a) Monopoly  
(b) Perfect competition  
(c) Oligopoly  
(d) All imperfect markets
- 233.** Marginal revenue will be zero if the elasticity demand is—  
(a) Less than one  
(b) Greater than one  
(c) Equal to one  
(d) Equal to Zero
- 234.**  $MR_n = TR_n - TR_{n-1}$  is the algebraic expression of—  
(a) TR earned by selling  $n$  units of product instead of  $(n - 1)$  units  
(b) Marginal Revenue, the addition to TR earned by selling  $n$  units of product instead of  $(n - 1)$  units  
(c) Information is insufficient  
(d) None of the above
- 235.** In general, if the average revenue curve is a horizontal straight line, the marginal revenue curve will be —  
(a) U-shaped (b) A straight line  
(c) C-shaped (d) Bell-shaped
- 236.** When AR is falling, MR will be  
(a) Equal to AR  
(b) Less than AR  
(c) More than AR  
(d) Either more or equal to AR
- 237.** Marginal revenue will be positive if elasticity of demand is  
(a) Less than one (b) More than one  
(c) Equal to one (d) Equal to zero
- 238.** Marginal Revenue will be negative if the demand is  
(a) Relatively elastic (b) Unitary elastic  
(c) Inelastic (d) Perfectly elastic
- 239.** When AR is constant, MR is  
(a) Equal to AR (b) More than AR  
(c) Less than AR (d) Equal to zero
- 240.** If AR curve is a falling straight line, MR curve will lie below it in such a way that any line drawn from a point from y-axis parallel to x-axis to meet the AR curve is intersected by the MR curve  
(a) Mid-way  
(b) More than half-way  
(c) Less than half-way  
(d) Anywhere

- 241.** In general, profit will be at a maximum where  
 (a)  $MC=MR$  (b)  $MC>MR$   
 (c)  $MC<MR$  (d)  $MC=MR=1$
- 242.** The time period and elasticity of demand for a product are related—  
 (a) Indirectly (b) Directly  
 (c) In direct proportion (d) None
- 243.** Under perfect competition a firm will be in equilibrium if  
 (a)  $MC=MR$   
 (b)  $MC$  cuts the  $MR$  from below  
 (c)  $MC$  rises when it cuts the  $MR$   
 (d) All the above three conditions are fulfilled
- 244.** The demand curve confronting an individual firm is perfectly elastic then—  
 (a) The firm is a price taker  
 (b) The firm cannot influence the price  
 (c) The amount the firm places on the market is small relative to the total supply  
 (d) All of the above
- 245.** Efficient allocation of resources is likely to be achieved under  
 (a) Monopoly  
 (b) Monopolistic competition  
 (c) Perfect competition  
 (d) Any market form
- 246.** When the perfectly competitive firm and industry are both in long run equilibrium—  
 (a)  $P = MR = SAC = LAC$   
 (b)  $P = MR = SMC = LMC$   
 (c)  $P = MR =$  Lowest point on the  $LAC$  curve  
 (d) All of the above
- 247.** By "normal profits" is meant  
 (a) The profit made by the marginal entrepreneur in a normal year  
 (b) The payment made to the marginal entrepreneur for his abilities  
 (c) The surplus profit made by the least efficient firms  
 (d) The payment needed to keep an entrepreneur in an industry
- 248.** Under the perfect competition the transportation cost  
 (a) is considered to be negligible and thus, ignored  
 (b) is considered to be vital for the calculation of total cost  
 (c) is charged along with the price of the commodity  
 (d) Excluded from the prime cost
- 249.** In perfect competition market there is a process of  
 (a) Free entry but restricted exit of the firms  
 (b) Free entry and free exit of the firms  
 (c) Restricted entry and exit of the firms  
 (d) Semi-free exit but absolute free entry
- 250.** In perfectly competitive market  
 (a) Firm is the price-giver and the industry the price-taker  
 (b) Firm is the price-taker and industry the price giver  
 (c) Both are the price-takers  
 (d) None of these
- 251.** Price taker firms  
 (a) Advertise to increase the demand of their product  
 (b) Do not advertise, because most advertising is wasteful  
 (c) Do not advertise because they can sell as much as they want at the current price  
 (d) Who advertise will get more profit than those who do not
- 252.** In conditions of pure competition, in which the demand for a firm's product is infinitely elastic, the firm's average revenue curve will be  
 (a) A vertical straight line  
 (b) A horizontal straight line  
 (c) A U-shaped curve  
 (d) A straight line at  $45^\circ$  to the horizontal axis
- 253.** Under competitive conditions the industry will be in equilibrium  
 (a) When each firm is in equilibrium equating  $MC$  with  $MR$   
 (b) When all the firms are earning only normal profits

- (c) When firms outside have no tendency to enter the industry and those within, have no tendency to leave the industry
- (d) When all the three conditions are fulfilled.
- 254.** In the long run competitive equilibrium theory predicts that
- (a)  $TC = TR$  and  $MC = MR$
- (b) Firms operate at a minimum long run average cost
- (c) There is no incentive for entry or exit of firms
- (d) All these conditions exist
- 255.** 'Maximisation of total profit' is the fundamental aim of—
- (a) The management of an industry
- (b) The management of a firm
- (c) The management of a market
- (d) The management of an economy
- 256.** The period of time in which the plant capacity can be varied is known as
- (a) The short period
- (b) The market period
- (c) The long period
- (d) All of the above
- 257.** If the supply curve remains unchanged and demand increases, the price will—
- (a) Increase
- (b) Decrease
- (c) Remain the same
- (d) None of the above
- 258.** One would expect a firm to close down rather than continue producing in the short-period if
- (a) Total revenue were more than total variable cost
- (b) Total revenue were less than total variable cost
- (c) Variable costs were to fall below fixed costs
- (d) Variable costs were to rise above fixed costs
- 259.** Expanding output till the rising marginal cost is less than price, is the nature of
- (a) Imperfectly competitive market
- (b) Perfectly competitive market
- (c) Perfectly competitive firm
- (d) Perfectly competitive industry
- 260.** At the shut-down point
- (a)  $P = AVC$
- (b)  $TR = TVC$
- (c) The total losses of the firm equal TFC
- (d) All of the above
- 261.** When at a given price, the quantity demanded of a commodity is more than the quantity supplied, there will be
- (a) An upward pressure on price
- (b) A downward pressure on price
- (c) Price will remain unaffected
- (d) All of these
- 262.** In long run competitive equilibrium
- (a) Every firm will earn economic profit
- (b) Every firm will incur losses
- (c) Every firm will earn only normal profit
- (d) The marginal firm will earn no profit
- 263.** Long run equilibrium price of a perfect competitive firm is always
- (a) Above the LAC      (b) Below the LAC
- (c) Equal to AFC      (d) Equal to LAC
- 264.** A perfectly competitive industry becomes a monopoly with the same cost conditions, it will now sell
- (a) An unchanged output at a higher price
- (b) A larger output at the old price
- (c) A larger output at a higher price
- (d) A reduced output at a higher price
- 265.** Under price discrimination price will be higher in the market where demand is
- (a) Unitary elastic
- (b) Highly elastic
- (c) Less elastic
- (d) None of the above
- 266.** From the resource allocation view point, perfect competition is preferable because
- (a) The firms operate at excess capacity levels
- (b) There is a whole variety of output produced

- (c) There is no restriction on entry and exit of firms  
(d) There is no idle capacity
- 267.** The competition among buyers, each trying to get enough of the product to satisfy his wants tends to move  
(a) The consumer's price  
(b) The market price  
(c) The equilibrium price  
(d) All of the above
- 268.** Excess capacity is not found under  
(a) Monopoly  
(b) Monopolistic competition  
(c) Perfect competition  
(d) Oligopoly
- 269.** Consumers are likely to get a variety of goods under  
(a) Perfect competition  
(b) Monopoly  
(c) Imperfect competition  
(d) Oligopoly
- 270.** Under perfect market and in case of decreasing marginal cost the firm's equilibrium with respect to level of production—  
(a) Cannot be achieved  
(b) Can be achieved after a small level of output  
(c) Can be achieved after a high level of output  
(d) Will result in run-away inflation
- 271.** A monopoly producer has  
(a) Control over production but not price  
(b) Control over production and therefore over price (but not upon both)  
(c) Control neither on production nor on price  
(d) Control over production, price and consumers
- 272.** A profit - maximising monopolist in two separate markets will—  
(a) Charge the same price in both markets  
(b) Always charge a higher price in the market where he sells more  
(c) Always charge a higher price in the market where he sells less  
(d) Adjust his sales in the two markets so that his MR in each market just equals his aggregate marginal cost
- 273.** Equilibrium of monopolist will never lie below the middle point of the average revenue curve because below the middle point—  
(a) Elasticity of demand is -less than one  
(b) MR is negative  
(c) Both(A)and(B)  
(d) Market laws cease to operate
- 274.** Price discrimination is possible  
(a) When elasticities of demand in different markets are the same at the ruling price  
(b) When elasticities of demand are different in different markets at the ruling price  
(c) When elasticities cannot be known  
(d) None of these
- 275.** OPEC is an example of the type of producer's organization known as a-  
(a) Marketing board  
(b) Perfect Competition  
(c) Trust  
(d) Cartel (oligopoly)
- 276.** In monopoly, the relationship between average and marginal revenue curves is as follows—  
(a) Average revenue curve lies above the MR curve  
(b) AR curve coincides with the MR - curve  
(c) AR curve lies below the MR - curve  
(d) AR curve is parallel to the MR - curve
- 277.** The difference between monopoly equilibrium and competitive equilibrium is  
(a) The MC should rise at the point of equilibrium under perfect competition whereas under monopoly it can rise, fall or remain constant  
(b) There is no difference at all  
(c) Under perfect competition the MC = MR whereas under monopolistic conditions this need not be the case  
(d) None of the above
- 278.** If the individual firm's demand curve is coincident with the market demand curve then  
(a) The firm is price-taker  
(b) The firm is a monopolist  
(c) The firm can set any price it wants without limitation  
(d) Marginal revenue is equal to average revenue
- 279.** Even in the long run equilibrium, the pure monopolist (as opposed to the perfectly

- competitive firm) can make abnormal profits because of
- (a) Blocked entry  
(b) High price he charges  
(c) His low LAC  
(d) Advertising
- 280.** Price discrimination is possible
- (a) Only under monopoly situation  
(b) Under any market form  
(c) Only under monopolistic competition  
(d) Only under perfect competition
- 281.** Pure Monopoly exists
- (a) When there is a single producer  
(b) When there is a single producer without any close substitutes -  
(c) When there is a single producer with close substitutes  
(d) When a few producers control the industry
- 282.** Bilateral monopoly means
- (a) Two rival sellers only  
(b) Two rival buyers only  
(c) A monopoly seller buying his input from many suppliers  
(d) A monopolist facing a monopsonist
- 283.** Given the cost conditions
- (a) Monopoly output and price will be higher than under pure competition  
(b) Monopoly output will be lower and price higher than under pure competition  
(c) Monopoly output will be higher and price lower than under pure competition  
(d) Monopoly output and price will be lower than under pure competition
- 284.** If a commodity sold under monopoly is got free of cost, MC curve will be—
- (a) Identical with the x-axis  
(b) Identical with the MR  
(c) A Horizontal straight line above x-axis  
(d) Identical with y-axis
- 285.** A Monopoly producer usually earns
- (a) Abnormal profits  
(b) Only normal profits  
(c) Neither profits nor losses  
(d) Profits and losses which are uncertain
- 286.** The limit to the long-run growth of a firm under imperfectly competitive conditions is set by—
- (a) Fear of falling demand  
(b) Fear of prices falling more than costs  
(c) Fear of rising costs  
(d) Fear of external diseconomies
- 287.** The AR curve and industry demand curve are same
- (a) In case of monopoly  
(b) In case of oligopoly  
(c) In case of perfect competition  
(d) None of the above
- 288.** In which form of market price regulation is most advantageous for the consumer?
- (a) in case of monopoly  
(b) In case of oligopoly  
(c) In case of perfect competition  
(d) None of the above
- 289.** The firms are under severe pressure to keep their costs low, then the situation characterised by—
- (a) Strong competition with perfect competition  
(b) Strong competition  
(c) Oligopolist competition  
(d) Monopolist competition
- 290.** Dumping means selling at
- (a) A higher price in home market and a lower price in foreign market  
(b) A lower price in the home market and a higher price in foreign market  
(c) The same price in the home and the foreign market  
(d) None of the above
- 291.** Modern theories of imperfect competition were inspired by
- (a) Robbins  
(b) Sraffa  
(c) Cournot  
(d) Edward Chamberlin and Joan Robinson
- 292.** The situation in which total revenues equal total cost, is known as
- (a) Monopolistic competition  
(b) Equilibrium level of output  
(c) Break-even point  
(d) Perfect competition
- 293.** Chamberlin's concepts of "product group" may be defined as—
- (a) Products that have infinite cross elasticity

- of demand
- (b) Products that are close technological and economic substitutes
- (c) Homogeneous products with different brand names
- (d) Product that have infinite elasticity of substitution
- 294.** Under monopolistic competition there can be freedom of entry in the sense of a freedom to produce
- (a) Close substitutes
- (b) Perfect substitutes
- (c) Complementary goods
- (d) Perfect complementary goods
- 295.** The sale of "branded articles" is common in a situation of
- (a) Excess capacity
- (b) Monopolistic competition
- (c) Monopoly
- (d) Pure competition
- 296.** Monopolistic competition takes account of all the following except—
- (a) Selling cost
- (b) Product differentiation
- (c) Price competition
- (d) Reaction function
- 297.** Monopolistic can fix
- (a) Both price and output
- (b) Either price or output
- (c) Neither price nor output
- (d) None
- 298.** Selling costs are incurred under monopolistic competition to
- (a) Attract more customers
- (b) Prevent its customers from going to others
- (c) Establish superiority of its product vis-a-vis the others
- (d) All of the above
- 299.** In an oligopoly, a firm while deciding about its own price and output policy has
- (a) To take account of the likely reactions of the other firms
- (b) Has not to bother about other firms
- (c) Assume that others will not react
- (d) To act independently of the others
- 300.** Joint profits are maximised in the cartel, which is a model of—
- (a) Duopoly (b) Duopsony
- (c) Oligospony (d) Oligopoly
- 301.** A kinked demand curve is most consistent with which one of the following market situations
- (a) Pure competition
- (b) Pure monopoly
- (c) Oligopoly
- (d) Monopolistic competition
- 302.** A kinked demand curve has
- (a) A lower elasticity above the point of kink and a higher elasticity below it
- (b) A higher elasticity above the point of kink and a lower elasticity below it
- (c) A uniform elasticity both above and below the point of kink
- (d) None of the above
- 303.** 'If an oligopolist decreases his price the rivals will follow'. This is the basic assumption of—
- (a) The kinked demand curve
- (b) The oligopolistic demand curve
- (c) The kinked demand curve
- (d) The demand curve
- 304.** Which of the following used the kinked demand curve only to explain why oligopoly prices are 'sticky'?
- (a) P.M. Sweezy (b) Chamberlin
- (c) Hall and Hitch (d) Stigler
- 305.** Which of the following is not the feature of Perfect Competition?
- (a) Large number of buyers and sellers
- (b) Small number of buyers and sellers
- (c) Free Entry and Exit
- (d) Good is Homogeneous
- 306.** In Imperfect competition
- (a) Excess capacity always exists
- (b) Excess capacity never exists
- (c) Excess capacity may or may not exist
- (d) None of the above
- 307.** In perfect competition utilization of resources is
- (a) Partial (b) Moderate
- (c) Full (d) Over



308. Which of the following statements is false?  
 (a) For equilibrium the main condition is  $MC=MR$   
 (b) AR curve and Demand curve are same  
 (c) MC and AC curves are U-shaped in every market  
 (d) None of the above
309. Relationship between AR, MR and Price elasticity of demand is  
 (a)  $MR=AR+$  (b)  $MR=AR \times$   
 (c)  $AR=MR \times$  (d)  $MR=AR \times$
310. In a perfectly competitive firm, MC curve above AVC is the ..... Curve of the firm.  
 (a) average cost  
 (b) marginal revenue  
 (c) demand  
 (d) supply
311. In the long run, normal profits are included in the ..... curve  
 (a) LAC (b) LMC  
 (c) AFC (d) SAC
312. A purely competitive firm's supply schedule in the short run is determined by:  
 (a) Its average revenue  
 (b) Its marginal revenue  
 (c) Its marginal cost curve  
 (d) Marginal utility for money curve
313. For the Price taking firm :  
 (a) Marginal Revenue is less than price  
 (b) Marginal revenue is greater than price  
 (c) The relationship between marginal revenue and price is not clear  
 (d) Marginal revenue is equal to average revenue
314. Which of the following is incorrect ?  
 (a) The shape of the average cost and marginal cost curve is 'U'  
 (b) The AR and MR curves of a firm under perfect competition are parallel to X-axis.  
 (c) At Equilibrium  $AR=MR$   
 (d) At Equilibrium  $MC=MR$
315. A condition needed for a perfectly competitive Industry., to exist is  
 (a) Buyers are able to influence the price of the commodity  
 (b) Any units of commodity are considered by buyers to be different  
 (c) Buyer discriminates in their purchases based on non-price factors.  
 (d) There are no obstacles to the free mobility of resources.
316. If after selling 10 units, a seller realises ₹ 12,000 and after selling 15 units he realises ₹ 20,000 what is the marginal revenue here?  
 (a) ₹ 1500 (b) ₹ 1600  
 (c) ₹ 8000 (d) ₹ 2000
317. Assume that when price is ₹ 40 quantity demanded is 9 units, and when price is ₹ 38, quantity demanded is 10 units Based on this information, what is the marginal revenue resulting from an increase in output from 9 units to 10 units?  
 (a) ₹ 20 (b) ₹ 40  
 (c) ₹ 38 (d) ₹ 1
318. Suppose a firm is producing at level of output, such that  $MR > MC$  what should be the firm do to maximise profit ?  
 (a) The firm should increase output  
 (b) The firm should do nothing  
 (c) The firm should hire less labour  
 (d) The firm should decrease price
319. Which of the following is not a characteristic of a price taker?  
 (a) Negatively Sloped Demand Curve  
 (b)  $TR=P \times Q$   
 (c)  $AR = \text{Price}$   
 (d)  $MR=AR$
320. All are features of monopoly except :  
 (a) There is a single seller  
 (b) The firm is a price taker  
 (c) The firm produces a unique product  
 (d) The existence of some advertising
321. Which of the following costs are included in selling costs?  
 (a) Expenses on advertisement in T.V.  
 (b) Cost of machines  
 (c) Cost of raw material  
 (d) Wages

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