INDIAN SCHOOL AL WADI AL KABIR

FORMS OF MARKET AND PRICE DETERMINATION UNDER PERFECT COMPETITION

Qn1. Define:

1. **Market**: Market refers to a region where buyers and sellers of a commodity come in contact with each other to effect the transactions of purchase and sale of the commodity.

2. **Market structure** refers to number of firms and types of firms operating in the industry.

3. **Homogenous product:** Products sold in the market are homogeneous, i.e., they are identical in all respects like quality, colour, size, weight, design, etc.

4. **Price Taker:** A firm is said to be a price-taker if it has to accept the price, as determined by the market forces of demand and supply.

5. **Break-even point:** It is the level of output at which total cost of production (Fixed Cost + Variable Cost) per unit just equals to Total Revenue.

Qn 2. Explain the three bases on which different market are defined.

(a) Nature of commodity: If homogeneous goods are produced in a market, it is sold at a constant price. If commodity produce is of heterogeneous or differentiated in nature, it may be sold at different prices. If commodity has no close substitute, the seller can charge higher price from the buyer.

(b) Number of buyer and sellers: If there are large number of buyers and sellers, then buyers and sellers are not in a position to influence the price of the commodity. If, there is a single seller of a commodity, then the seller has control over a price.

(c) Entry and exit of a firm: If there is a free entry and exit of a firm, then the price will be stable in the long run. It is so because then the new firm enter the industry induced by large profit, then abnormal profit will be wiped out and if inefficient firms incurring losses are free to leave the industry. In short due to free entry and exit, firm earns normal profit. If there is difficult entry of a new firm (because of patent rights), then a firm can influence the price as it has no fear of competition.

Qn 3. What are the Characteristics of a perfectly competitive market? [3 Marks]
Answer:

1. Large number of buyers and sellers
2. Homogeneous product
3. Free entry and exit of firms
4. Perfect knowledge about the market
5. Perfect mobility of factors of production

6. Absence of transportation and selling cost

Qn 4. Explain the features of Perfect Competition.
(a) Large number of sellers and buyers:
(i) Large number of sellers
• The words 'large number' simply states that the number of sellers is large enough to render a single seller's share in total market supply of the product is insignificant.
• Insignificant share means that if only one individual firm reduces or raises its own supply, the prevailing market price remains unaffected.
• The prevailing market price is the one which was set through the intersection of market demand and market supply forces, for which all the sellers and all the buyers together are responsible.
• One single seller has no option but to sell what it produces at this market determined price. This position of an individual firm in the total market is referred to as price taker. This is a unique feature of a perfectly competitive market.
(ii) Large number of buyers
• The words 'large number' simply states that the number of buyers is large enough, that an individual buyer's share in total market demand is insignificant, the buyers cannot influence the market price on his own by changing his demand.
• This makes a single buyer also a price taker.
To sum up, the feature "large number" indicates ineffectiveness of a single seller or a single buyer in influencing the prevailing market price on its own, rendering him simply a price taker.
(b) Homogeneous Products:
(i) Product sold in the market are homogeneous, i.e., they are identical in all respects like quality, colour, size, weight, design, etc.
(ii) The products sold by different firms in the market are equal in the eyes of the buyers.
(iii) Since, a buyer cannot distinguish between the product of one firm and that of another, he becomes indifferent as to the firms from which he buys.
(iv) The implication of this feature is that since the buyers treat the products as identical they are not ready to pay a different price for the product of any one firm. They will pay the same price for the products of all the firms in the industry. On the other hand, any attempt by a firm to sell its product at a higher price will fail. To sum up, the "homogenous products" feature ensures a uniform price for the products of all the firms in the industry.
(c) Free entry and exit of firms:
(i) Buyers and sellers are free to enter or leave the market at any time they like. New firms induced by large profits can enter the industry whereas losses make inefficient firms to leave the industry.
(ii) The freedom of entry and exit of firms has an important implication. This ensures that no firm can earn above normal profit in the long run. Each firm earns just the normal profit, i.e., minimum necessary to carry on business.
(iii) Suppose the existing firms are earning above normal profits, i.e. positive economic profits. Attracted by the positive profits, the new firms enter the industry. The industry's output, i.e. market supply, goes up. The prices come down. New firms continue to enter and the prices continue to fall till economic profits are reduced to zero.
(iv) Now suppose the existing firms are incurring losses. The firms start leaving. The industry's output starts falling, prices going up, and all this continues till losses are wiped out.

The remaining firms in the industry then once again earn just the normal profits.
(v) Only zero economic profit in the long run is the basic outcome of a perfectly competitive market.

(d) Perfect Knowledge about the market:

(i) Perfect Knowledge means both buyers and sellers are fully informed about the market.
(ii) The firms have all the knowledge about the product market and the input markets. Buyers also have perfect knowledge about the product market.
(iii) The implication of perfect knowledge about the product market is that any attempt by any firm to charge a price higher than the prevailing uniform price will fail. The buyers will not pay because they have perfect knowledge. A uniform price prevails in the market.

(e) Perfect mobility:

(i) There is perfect mobility in the market both for goods and factors of production.
(ii) There should be no restriction on their movement. Goods can be sold at any place.
(iii) Similarly, factors of production can freely move from one place to another or from one occupation to another.
(j) Absence of transportation and selling cost.
(i) In perfect competition, it is assumed that there is no transport cost for consumers who may buy from any firm and also there is no selling cost.
(ii) This insures existence of a single uniform price of the product.

Qn 5. Explain the implication of homogeneous product in perfect competition.
Answer:

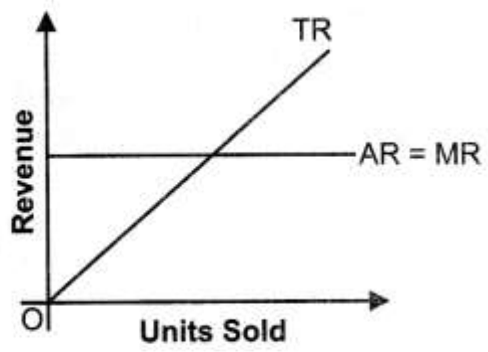
1. Products sold in the market are homogeneous, i.e., they are identical in all respects like quality, colour, size, weight, design, etc.
2. The products sold by different firms in the market are equal in the eyes of the buyers.
3. Since, a buyer cannot distinguish between the product of one firm and that of another, he becomes indifferent as to the firms from which he buys.
4. The implication of this feature is that since the buyers treat the products as identical they are not ready to pay a different price for the product of any one firm. They will pay the same price for the products of all the firms in the industry. On the other hand, any attempt by a firm to sell its product at a higher price will fail.
   To sum up, the "homogeneous products" feature ensures a uniform price for the products of all the firms in the industry.

Qn 6. Explain the implication of perfect knowledge about the market.
Answer:

1. Perfect Knowledge means both buyers and sellers are fully informed about the market.
2. The firms have all the knowledge about the product market and the input markets. Buyers also have perfect knowledge about the product market.
3. Let us first take the product market. The implication of perfect knowledge about the product market is that any attempt by any firm to charge a price higher than the prevailing uniform price will fail. The buyers will not pay because they have perfect knowledge. A uniform price prevails in the market.

Qn 7. What is the relationship between TR, AR and MR under perfect competition?
Answer:

1. In the perfect competition, a firm is a price taker.
2. It has to sell its product at the same price as given (determined) by the industry. Consequently, price = AR = MR.
3. Hence, a firm’s AR and MR curve will be a horizontal straight line parallel to X axis.
4. Since price remains the same, i.e., MR is constant, therefore, TR increases at the Constant rate as increase in the output sold.
5. As the result of, TR curve facing a competitive firm is positively sloped straight line. Again, because at zero output Total Revenue is zero therefore, TR curve passes through the origin O as shown in the given figure.

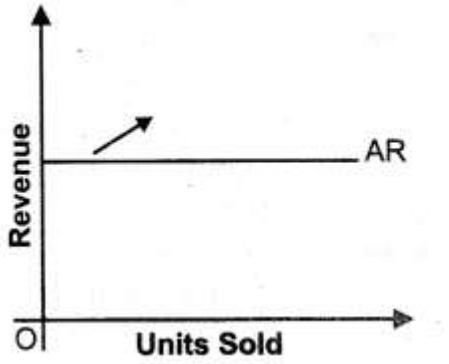


8. There are large number of sellers in a perfectly competitive market. Explain the significance of this feature. [CBSE 2015]
Answer: Large number of sellers—:

1. The words large number’ simply states that the number of sellers is large enough to render a single seller’s share in total market supply of the product insignificant,
2. Insignificant share means that if only one individual firm reduces or raises its own supply, the prevailing market price remains unaffected.
3. The prevailing market price is the one which was set through the intersection of market demand and market supply forces, for which all the sellers and all the buyers together are responsible.
4. One single seller has no option but to sell what it produces at this market determined price. This position of an individual firm in the total market is referred to as price taker. This is a unique feature of a perfectly competitive market.

9. Why is AR curve of a firm under perfect competition parallel to X-axis? [CBSE 2006]
Answer:

1. AR curve of a firm under perfect competition is parallel to X-axis because in perfect competition homogeneous product are produced, that is why price remains constant and as we know AR = TR/Q = PX Q/Q = Price. So, AR remains constant.
2. As, AR is on Y-axis, that is why AR curve remains constant and parallel to X-axis.



10.Why is a perfectly competitive firm a price taker?

A: In a perfectly competitive market there are a large number of producers of a product. All of them produce a homogeneous product. Therefore, all the firms have to sell at the same price. This price is determined by industry demand and supply. the feature "large number" indicates ineffectiveness of a single seller or a single buyer in influencing the prevailing market price on its own, rendering him simply a price taker.

10. Explain the situation of excess demand and excess supply with the help of a diagram.
Excess Demand It refers to the situation in which at a price in the market, demand is more than that of supply [DD>SS], which creats an upward pressure on price.

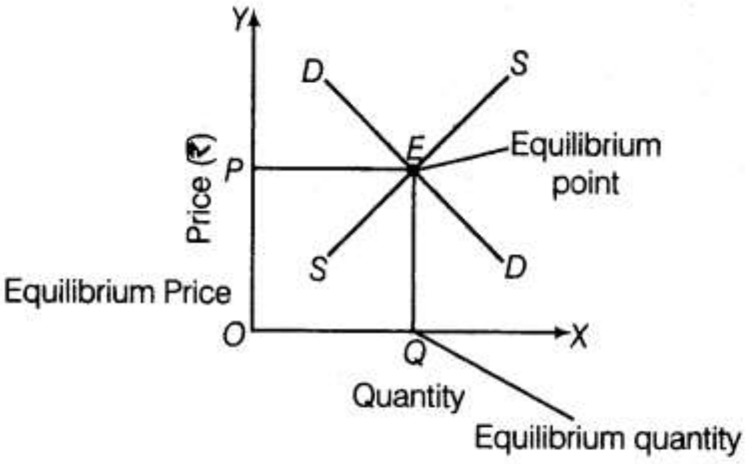


Diagram showing determination of equilibrium point

Excess Supply It refers to the situation in which at a price in the market, supply is more than that of demand [SS>DD], which creats a downward pressure on price.

11. Market for a good is in an equilibrium. There is an increase in demand for this good. Explain the chain of effects. (Delhi 2011)

OR

At a given equilibrium in the market, explain the chain of effects, of increase in demand for a good. (All India 2010 C)

Ans. The given diagram shows a situation of increase in demand. The demand curve shifts to the right from DD to D1D1 An equilibrium point shifts from E to E_1 Consequently, an equilibrium price and an equilibrium quantity rises from OP to OP, and OQ to OQ1 respectively.

The chain effects of increase in demand When there is a increase in demand it creates excess demand (equal to O Q_2) at initial price OP and as a result of which price will rise. With rise in price, demand will start falling (according to Law of Demand) and supply will start rising (according to Law of Supply), this process will continue till the time we reach new equilibrium level at $£_v$ where there is no excess demand.

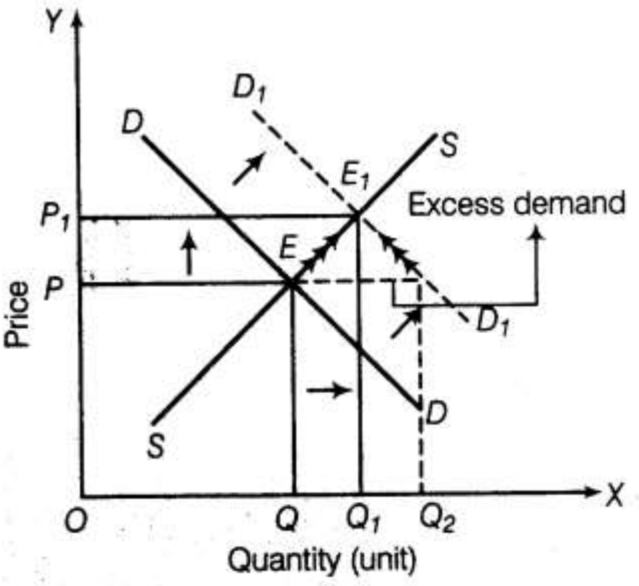


Diagram showing situation of excess demand

12. Explain the changes that will take place when in a market the demand for a good is greater than supply at the prevailing price. (Delhi 2010 c)

Ans. If at a prevailing price, quantity demanded is more than quantity supplied then supplier will motivate to increase the price of the commodity due to which demand decreases, till it reaches at the equilibrium price where quantity demanded is equal to quantity supplied.

13.Explain why an equilibrium price of a commodity is determined at that level of output at which its demand equals its supply. (Delhi 2010 c)

Ans. An equilibrium is a point where quantity demanded is equal to quantity supplied and an equilibrium can be attained only at that point. If at a given price, supply is more, it will show excess supply and if demand is more, it will show excess demand. Due to excess supply price will fall and due to excess demand price will rise. Hence, price will be stable only at an equilibrium level where demand and supply both are equal.

14. How is an equilibrium price of a commodity determined ?Explain with the help of demand and supply schedule(Delhi 2009)

OR

Explain how market price of a good is determined. Use diagram(All India 2009 c)

OR

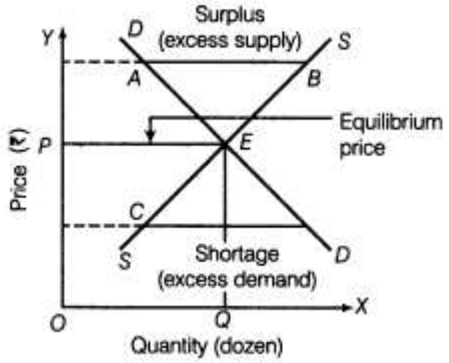
How is price determined under perfect competition? Explain briefly(All India 2006)

Ans. An equilibrium price is determined by the forces of market demand and market supply Considering market demand schedule on the one hand and market supply schedule on the other hand, we identify an equilibrium price as the one where market demand is equal to market supply i.e. where market demand curve and market supply curve intersect each other.

Market Equilibrium Price (Schedule)

Price of commodity X (₹)	Quantity supplied of commodity X (Dozen)	Quantity demanded of commodity Y (Dozen)
5	50	10
4	40	20
3	30	30 Equilibrium
2	20	40
1	10	50

(1)



Determination of equilibrium price

(1)

15. Suppose the price of a good is higher than equilibrium price. Explain the changes that will establish equilibrium price. (Delhi 2009 c)

Ans. When price prevailing in the market is higher than that of equilibrium price, demand will be less than supply i.e. there is excess supply in the market. Excess supply will force the market price to slide down causing extension of demand and contraction of supply. The process of an extension and contraction would continue till the equilibrium between supply and demand is struck.

Thus, an equilibrium price will be restored through the free play of market forces of demand and supply.

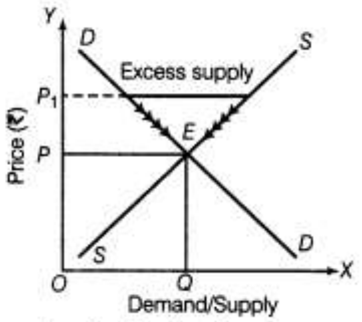


Diagram showing the situation of excess supply

16. The demand and supply of a commodity both decreases in the same proportion. Explain its effects on an equilibrium price and quantity with the help of a diagram. (All India 2008)

Ans. When decrease in supply is equal to decrease in demand, an equilibrium price will remain the same but an equilibrium output will decrease.

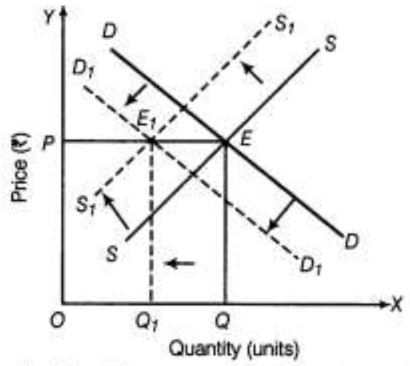


Diagram showing effects on equilibrium price and quantity

In the given diagram, actual demand curve DD and actual supply curve SS intersect at point E (i.e. an equilibrium point). At this point, OP is equilibrium price and OQ is equilibrium quantity. When demand decreases to D1D1 and supply decreases to S1S1 The new curves intersect each other at point E1 It shows that an equilibrium price remains constant because both demand and supply have decreased in the same proportion. However, an equilibrium quantity decreases to OQ1