Chapter 5

EQUILIBRIUM AND PRICE DETERMINATION

5.1 Equilibrium

A situation in which economic forces, as they exist at their times have no tendency to change. The concept of equilibrium is used in both physical and social sciences and it is of central importance in economic analysis. In economics, a market is said to be in equilibrium when all sellers and buyers are satisfied with one price and there is no tendency for production or price in that market to change.

In this chapter, we will work together on supply and demand to understand how market forces work to establish a particular price and quantity to establish a state of equilibrium.

5.2 Economic Equilibrium

All other things being equal, a buyer will always choose a seller with the lowest price, whereas a seller will choose, if possible, to sell at higher price. Only one price is possible where both seller and buyer agree and this is the state of equilibrium. When price is determined at equilibrium then it is called equilibrium price.

5.3 Perfect Competition

In our analysis of market equilibrium, we assume perfect competition in the market. A market is perfect in which there are enough buyers and sellers that no single buyer or seller can influence price of quantity by his or her individual actions.

5.4 One Price

In the perfect market, a law of one price holds. After the market forces of supply and demand of buyers and sellers, are at rest or in equilibrium, a single price for a good will prevail. The self interested, competitive forces of buyers and sellers acting through supply and demand guarantee this important result.

5.4 Market Equilibrium

At equilibrium price, consumers get precisely the quantity of the good they are willing to buy at that price, and producers sell precisely the quantity they are willing to sell at that price. When supply of a good is equal to the demand of that good then only one price is determined. This is called market equilibrium. At equilibrium, price is called equilibrium price and quantity is called equilibrium quantity.

5.5 Equilibrium and Price Determination

Price and quantity determine the market equilibrium. This can be explained with the help of following supply and demand schedule and diagram.

5.6 Explanation of Equilibrium with a Schedule

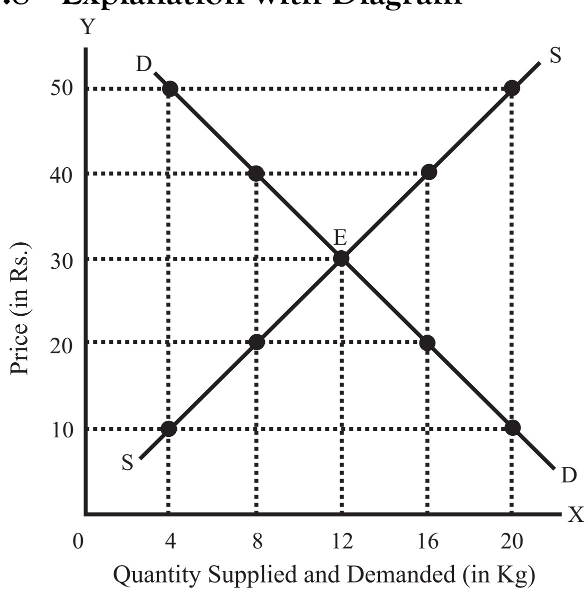
Price in the schedule moves from the highest level of Rs.50 to the lowest, level of Rs.10.The schedule shows the inverse relationship between price and quantity, which means less quantity is demanded at higher price and more quantity is demanded at lower price. This is according to the law of demand.

See the schedule 5.7. We can see that the equilibrium condition is met at a price of Rs.30 since sellers are planning to sell 12kg of sugar, which is the amount that buyers plan to buy at this price. Therefore, Rs.30 is the equilibrium price and 12 kg is the equilibrium quantity. This gives us the condition of market equilibrium.

Schedule 5.7 Determination of Market Equilibrium

Price of sugar in Rs. (Per Kg) P	Quantity demanded (Kg) (Inverse relation between price and quantity) Q_d	Quantity supplied (Kg) (Direct relation between price and quantity) Q_s
50	4	20
40	8	16
30	12	12
20	16	8
10	20	4

5.8 Explanation with Diagram



1. The intersection of demand curve, DD and the supply curve, SS gives the equilibrium point, E.
2. At equilibrium, price is Rs.30 and quantity demanded is equal to quantity supplied, that is, 12 kg.

The diagram is drawn on the basis of schedule 5.7. The demand curve DD, moves downward from left to right, which shows that it has negative slope. This confirms that price and quantity are inversely related. On the other hand, supply curve, SS, moves from left to right upward, which has positive slope. This confirms that price and quantity supplied are directly related.

Exercise

Q.1 Each question has four possible answers. Tick (✓) the best answer.

1. The intersection of demand and supply curves show:
   - (a) Equilibrium price.
   - (b) Equilibrium quantity.
   - (c) Market equilibrium.
   - (d) All above.
2. Market is in equilibrium when:
   - (a) The cost of production remains the same.
   - (b) The cost of production is decreasing.
   - (c) Desires of buyers are fulfilled.
   - (d) Demand of a good is equal to its supply.
3. Equilibrium means:
   - (a) The condition that is not possible.
   - (b) An unstable condition.
   - (c) A condition that cannot change.
   - (d) Stable position.

Q.2 Complete the following statements by filling in the missing words or phrases:

1. Market_______is determined with demand and supply.
2. When demand is equal to ________________ then market is in equilibrium.
3. Market price is also called ________________ .
4. In perfect competition no one can influence price and quantity by his _____________ .
5. Demand curve has ________________ slope.

Q.3 Match the statement in column A with column B. Choose the correct answer from column B and write in column C.

A	B	C
Market	Where supply and demand are equal	
Perfect competition	Negative slope	
Equilibrium price	Positive slope	
Demand curve	A place where sellers and buyers are present	
Supply curve	Where no one can fix price with his individual action	

Q.4 Answer the following questions in three sentences.

1. What does market equilibrium mean?
2. What is equilibrium price?
3. What is determined by the intersection of supply and demand?

Q.5 Answer the following questions in detail.

1. Explain market equilibrium with the help of a schedule and a diagram.
2. What is meant by equilibrium price and quantity? Explain with the help of a diagram.