LESSON 5

CONCEPT OF SUPPLY

To determine the price of any commodity, analysis of demand and supply is necessary. Now we will understand the concept of supply in detail. But first we need to understand the meaning of supply.

Supply is the amount of a product that a producer is offering for sale at a given price during a given period of time. Generally stock and supply are taken as synonymous but in economics they are two different concepts.

Supply is that part of the stock which is offered for sale at a particular price during a given period of time. It can be understood with the help of an example. If a producer, in his oil mill, produces 100 tins of oil then these 100 tins will be called as stock of ready goods. If he is ready to sell 90 tins at market price in this financial year, then these 90 tins will be called as quantity supplied.

Therefore, supply is that part of stock which he is willing to sell in a given period of time.

Factors affecting supply:

The supply of goods and services is affected by various factors. Some factors affect the supply directly, for instance market price of commodity & price of factors of production. Similarly there are some factors which influence the supply indirectly.The factors affecting the supply are as follows :-

1. Market Price of Commodity – When the market price of any good and services is high, then the producer gets more profit. All the producers are motivated by these profit and increase the supply of commodity, by increasing their production. On the contrary, the supply decreases on fall in the market price.

2. Prices of factors inputs – If the prices of factors inputs increase, the cost of production also increases, similarly if the price of factors inputs decrease, the cost of production decreases. If there is increase in cost of production, the quantity supplied in the market decreases and if there is decrease in cost of production, the quantity supplied in the market increases.

3. Price of related products- Sometimes the supply of a commodity gets affected by the prices of related goods (complementary goods and substitute goods). The increase in price of the complementary goods encourages the producers to increase its supply of commodity and earn more profits.

(a) Complementary goods :- In routine, there are many goods which can be purchased individually but their utility is enhanced only when its related goods are also purchased. (Such goods are used jointly. In absence of one commodity the utility of other good becomes zero)for example pen and ink, car and petrol etc. are complemenatary goods.

(b) Substitute goods – Substitute goods are those goods which can be used in place of one another and yet gives equal satisfaction to the consumer. For example – tea and coffee are substitutes for each other that give equal satisfaction to the consumers. Similarly, Pepsi and Coke are also substitute goods.

4. Change in technology – New technology develops with time causing reduction in cost and increase in production. Hence, the supply of specific commodity increase. Such technological improvements give advent to innovation and leads to sudden increase in profits of the producers.

5. Occasional circumstances- In Indian economy, festivals and functions have great importance which leads to sudden increase in demand of certain goods and services. Therefore, producers increase their supply in order to meet the demand and earn more profit.

6. Quality of Inputs- Sometimes, use of good quality of inputs results into increase in production. For example – use of hybrid seeds increases the agricultural production manifold, which in turn increases the supply.

7. Transportation Cost- Transportation cost also affects the supply of the commodity. Proper facilities of transport reduces the cost which has direct impact on transported goods resulting in increase in supply.

Law of Supply

It expresses the functional relationship between quantity supplied of a specific commodity and its price in a given time.

$$S_X = f(P_X)$$

Other things being constant, supply increases with a rise in the price and decreases with a fall in the price. This shows that there is a direct relationship between the price and the supply of a commodity.

Thus, law of supply explains that the price and supply of a commodity move in the same direction i.e. price of the commodity is directly and positively related to the supply of the commodity.

Assumptions of the Law of Supply :-

1- There is no change in supply and price of factors of production. The supply of factors of production of specific good and their prices remains constant.

2- The technology of production remains constant.

3- There is no change in taste and preferences of buyers and sellers.

4- The supply of goods is divisible.

5- Price of related goods remains unchanged.

6- Government policies regarding taxation and subsidy remain constant.

7- Conditions regarding weather and climate should remain constant for supply of agricultural products.

8- Supply of agricultural products in comparison to their price can only be changed after a time lag.

Reasons for the operation of the law of supply:-

1- In order to maximize profit at higher prices firms tries to sell more of their product.

2- At higher prices, new firms enter the market.

3- In the long run, the supply of all the factor inputs is variable. This makes it easier to increase the supply of the commodity.

Supply schedule can be constructed on the basis of law of supply. Supply schedule is of two types–

1 – Individual Firm Supply schedule.

2 – Market Supply schedule.

Individual Supply schedule and Supply Curve:- Individual Supply schedule depicts the available quantity supplied at market prices on specific time.

For example, supply of biscuits by two firms A and B is shown in a schedule (5.1). The schedule given below shows the quantity of biscuits that are supplied by two firms at different prices.

Table 5.1

Firm A Supply Schedule		Firm B Supply Schedule	
Biscut Packet Price (In)	Biscut Packet Price (In)	Biscut Packet Price (In)	Biscut Packet Price (In)

At given market price, the quantity supplied by these two firms has been shown in a figure (5.1 a & b). based on table (5.1). The X-axis represents the quantity of biscuit packets and Y-axis represents price per packet.

Fig. 5.1 (a)

Fig. 5.1 (b)

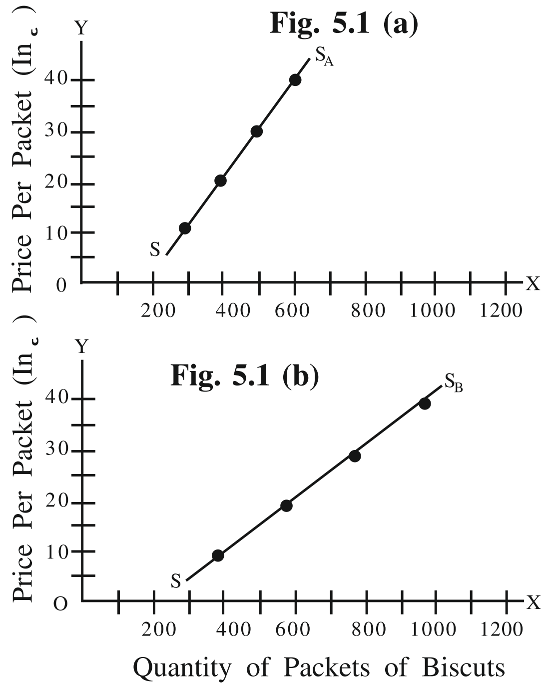

Figure 5.1

The curve showing the relationship between price and quantity supplied is positively sloped. This curve is known as individual firm supply curve.

Market supply schedule and Market supply curve :-

Market supply schedule is a table showing the quantity supplied of a specific good by all the producers or firms at each price for a given period of time. It is a summation of all individual supply schedules. If there are two firms in the market i.e. A and B and their individual supply schedule as shown in table 5.1. The market supply schedule can be constructed as follows :-

Table 5.2 Market supply schedule

Supply of Market Schedule			
Biscuit Packet Price (In ₹)	Supply of Biscuit Fron Firm A	Supply of Biscuit Fron Firm B	Market Total Supply A+B = Total Supply

Market supply curve :- The various price quantity combinations of a supply schedule when plotted graphically, the curve obtained is called market supply curve for a commodity. On basis of market supply schedule (Table 5.2), the curve drawn on basis of total quantity supplied of A and B firm at certain specific prices, per day is called as market supply curve (Fig. 5.2). It is obtained by lateral summation of individual firm's supply curves. The market supply curve S_M (Fig. 5.2) shows a positive relationship between quantity supplied of a commodity and its price.

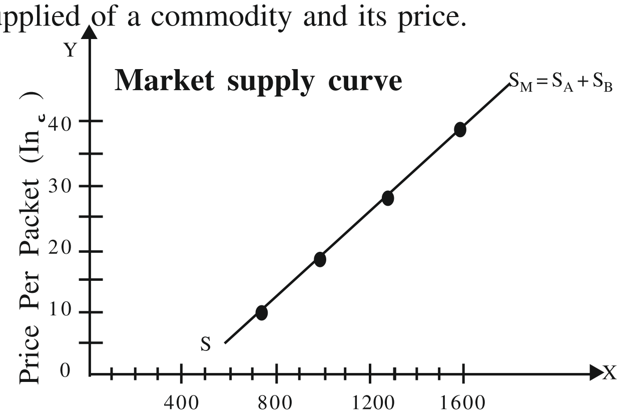

Figure 5.2

In the above given figure (5.2), the X-axis represents the number of packets of biscuits and Y-axis represents the price per packet. Market supply curve S_M is the horizontal summation of individual supply curves S_A and S_B.

Change in supply :

Change in quantity supplied refers to increase or decrease in the quantity supplied of a commodity in response to increase or decrease in its own price, other things remaining constant whereas change in supply curve (shift) refers to the increase or decrease in supply of a commodity in response to change in other factors like change in technology, price of raw material, occasional situations, tax etc.

First, we will try to understand the change in quantity supplied with the help of a curve :-

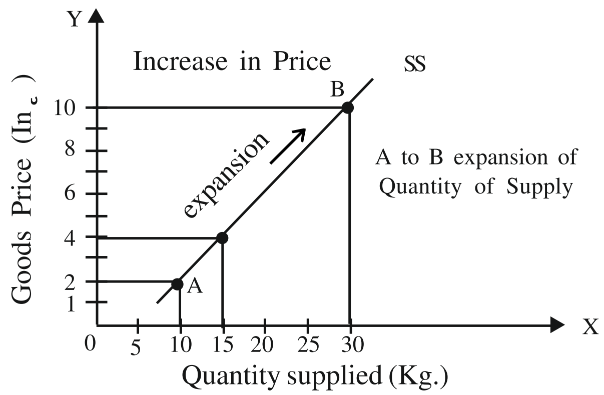

Figure = 5.3 (a)

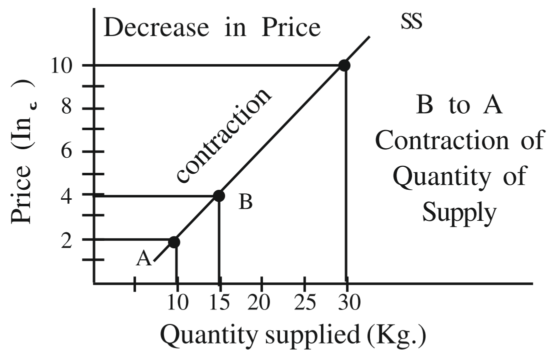

Figure 5.3 (b)

From the figure 5.3 (a) it is clear that increase in price of a commodity from ₹ 2 to ₹ 10, supply of commodity increases from 10 kg to 30 kg. This change is depicted on a supply curve SS between point A and B. This area shows the expansion in supply.

Similarly, if the price of a commodity decreases from ₹ 4 to ₹ 2, supply decreases from 15 kg to 10 kg. This is known as the contraction in supply. It is depicted by movement from B to A area along the same supply curve in figure 5.3 (b).

Shifts in supply curve

When supply of commodity changes due to other factors (other than price) such as change in technology, change in inputs price, change in natural resources change in government policies etc. it is called increase or decrease in supply. In this situation, price of commodity remains unchanged. The supply curve shifts either forward or backward.

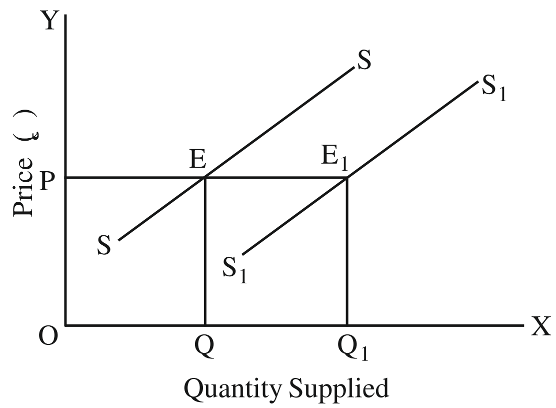

Figure 5.4 (a)

Downward (right) shift in supply curve with increase in supply

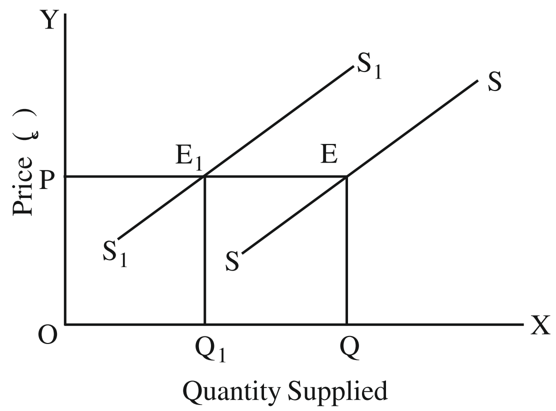

Figure 5.4 (b)

Upwards (left) shift in supply curve due to decrease in supply

Figure 5.4 (a) explains that due to change in technology without change in price of a commodity the supply curve shifts to right (downwards) from SS to S_1S_1. The supply of quantity increase from OQ to OQ_1 (E to E_1) at OP level of Price. This shows the increase in supply. In other situation, suppose the cost of production increases due to this supply curve shifts to left, (upwards from SS to S_1S_1). The supply of quantity decreases from OQ to OQ_1 (E to E_1) in figure 5.4 (b) at OP level of price.

Important points

- Supply refers to that part of stock which is offered for sale at a particular price in a particular period of time.
- With other things remaining constant, an increase in price results in an increase in quantity supplied, while decrease in price results in decrease in quantity supplied, it is called law of supply.
- Substitute Goods – Substitute goods are those goods which can be used in the place of each other and gives equal satisfaction.
- Individual supply schedule shows the amount of a product, that a single producer or a firm is offering for sale at various market prices during a given period of time.
- Market supply schedule shows the sum amount of a product that all the producers or firms are offering for sale at various prices during a given period of time,
- Change in quantity supplied is due to change in price of commodity in concern.
- Shifts in supply curve is due to change in other factors, which we assume to be constant.

Exercise Questions

Objective Type Questions :-

1- Which of the following factors affect the supply-

(A) prices of the commodity

(B) prices of the factors of production

(C) change in technology

(D) all of these

2- The relationship between price and quantity supplied is -

(A) direct and positive

(B) direct and negative

(C) proportional

(D) indirect

3- The slope of supply curve for normal goods is-

(A) Positive (B) Rectangular

(C) Negative (D) None of these

4- If a producer produces 200 units of a commodity in a particular period of time, he makes 180 units available in the market for sale, then supply in market is -

(A) 200 (B) 20

(C) 380 (D) 180

5- Which factor is not responsible for change in supply curve –

(A) price of raw material

(B) change in technology

(C) price of commodity

(D) special occasion

Very Short Answer Type Questions :-

1- Define supply.

2- What do you mean by stock?

3- What do you understand by law of supply?

4- Write the meaning of market supply.

Short Answer Type Questions :-

1- Differentiate between supply and stock.

2- Write any four assumptions of law of supply.

3- Write any four reasons for application of law of supply.

4- Calculate market supply from the following data –

Price	10	20	30	40	50	60	70
Supply of Firm - A	10	15	20	30	40	50	60
Supply of Firm - B	20	30	40	60	80	100	120

Ans 30, 45, 60, 90, 120, 150, 180.

5- Explain shift in supply curve with the help of a figure -

Essay Type Questions :-

1- What is supply? Describe the factors affecting supply.

2- What do you mean by law of supply? Explain the law of supply with the help of a schedule and a figure.

3- What are the factors responsible for the shift in supply curve ? How do technological changes affect the supply ? Explain with the help of a figure.

4- Explain expansion and contraction of supply with the help of a figure.

Answer Table

1	2	3	4	5
D	A	A	D	C