UNIT -3: SUPPLY

LEARNING OUTCOMES

After studying this unit, you would be able to:

- Explain the meaning of supply.
- List and provide specific examples of determinants of supply and elasticity of supply.
- Describe the law of supply.
- Describe the difference between movements on the supply curve and shift of the supply curve.
- Explain the concept of elasticity of supply with examples.
- Illustrate how the concepts of demand and supply can be used to determine price.

3.0 INTRODUCTION

In a market economy, sellers of products and services constitute the supply side. The sellers may include individuals, firms and governments. As the term 'demand' refers to the quantity of a good or service that the consumers are willing and able to purchase at various prices during a given period of time, the term 'supply' refers to the amount of a good or service that the producers are willing and able to offer to the market at various prices during a given period of time.

Three important points apply to supply:

(i) Supply refers to what a firm offer for sale in the market, not necessarily to what they succeed in selling. What is offered may not get sold.

(ii) Supply requires both willingness and ability to supply. Production cost is often the primary influence on ability.

(iii) Supply is a flow. Supply is identified for a specified time period. The quantity supplied is 'so much' per unit of time, per day, per week, or per year.

3.1 DETERMINANTS OF SUPPLY

Although price is an important consideration in determining the willingness and desire to part with commodities, there are many other factors which determine the supply of a product or a service. These are discussed below:

(i) **Price of the good:** Other things being equal, the higher the relative price of a good the greater the quantity of it that will be supplied. This is because goods and services are produced by the firm in order to earn profits and, *ceteris paribus*, profits rise if the price of its product rises.

(ii) **Prices of related goods:** If the prices of other goods rise, they become relatively more profitable to the firm to produce and sell than the good in question. When a seller can get a higher price for a good, producing and selling it becomes more profitable. Producers will allocate more resources towards its production even by drawing resources from other goods they produce. For example, a rise in the price of comic books will encourage publishers to shift resources out of the production of other books (such as novels) and use them in the production of comic books. As another example, if price of wheat rises, the farmers may shift their land to wheat production away from corn and soya beans. It implies that, if the price of Y rises, the quantity supplied of X will fall.

(iii) **Prices of factors of production:** Cost of production is a significant factor that affects supply. If the firm's cost exceeds what it can earn from selling the good, the firm sells nothing. A rise in the price of an input causes a decrease in supply. When the cost of resources such as wages, raw material prices and interest rates increase, producers decrease the amount they are willing to supply. Lower input costs indeed, make production more profitable, encourage existing firms to expand production and new firms to enter the market.

A rise in the price of a particular factor of production will cause an increase in the cost of making those goods that use a great deal of that factor than in the costs of producing those that use relatively small amount of the factor. For example, a rise in the cost of land will have a large effect on the cost of producing wheat and a very small effect on the cost of producing automobiles. Thus, a change in the price of one

factor of production will cause changes in the relative profitability of different lines of production and will cause producers to shift from one line to another and thus supplies of different commodities will change.

(iv) **State of technology:** The supply of a particular product depends upon the state of technology also. The use of new technology in an industry (such as automation) increases production efficiency and reduces production costs.

Inventions and innovations tend to make it possible to produce more or better goods with the same resources, and thus they tend to increase the quantity supplied of some products and to reduce the quantity supplied of products that are displaced. Availability of spare production capacity and the ease with which factor substitution can be made and the cost of such substitution also determine supply.

(v) **Government Policy:** Government rules and regulations affect how much firms want to sell or are allowed to sell. The production of a good may be subject to the imposition of commodity taxes such as excise duty, sales tax and import duties. These taxes raise the cost of production and so the quantity supplied of a good would increase only when its price in the market rises. Subsidies and other funding programmes to producers, on the other hand, reduce the cost of production and thus provide an incentive to the firm to increase supply. When government imposes restrictions such as import quota on consumer products and inputs, rationing of input supply etc, production tends to fall.

(vi) **Nature of competition and size of industry:** Under competitive conditions, supply will be more than that under monopolized conditions.

(vii) **Expectations**: Choices of firms in respect of selling the product now or later depends on expectations of future prices. Sellers compare current prices with future prices. An increase in the anticipated future price of a good or service reduces its supply today; and if sellers expect a fall in prices in future, more will be supplied now.

(viii) **Number of sellers:** If there are large number of firms in the market, supply will be more. Besides, entry of new firms, either domestic or foreign, causes the industry supply curve to shift rightwards.

Other Factors: The quantity supplied of a good also depends upon government's industrial and foreign policies, goals of the firm, infrastructural facilities, natural factors such as weather, floods, earthquake and man- made factors such as war, labour strikes, communal riots etc.

3.2 THE LAW OF SUPPLY

In general, producers are prepared to sell their product for a price if that price is at least as high as the cost to produce an additional unit of the product. Therefore, the willingness to supply depends on the price at which the good can be sold as well as the cost of production for an additional unit of the good. The greater the difference between those two values, the greater is the willingness of producers to supply the good.

Supply refers to the relationship of quantity supplied of a good with one or more related variables which have an influence on the supply of the good. Normally, supply is related with price, but it can also be related with other factors such as the type of technology used, scale of operations etc.

The law of supply can be stated as: Other things remaining constant, the quantity of a good produced and offered for sale will increase as the price of the good rises and decrease as the price falls.

This law is based upon common sense, because the higher the price of the good, the greater the profits that can be earned and thus greater the incentive to produce the good and offer it for sale. The law is known to be correct in a large number of cases. There is an exception however. If we take the supply of labour at very high wages, we may find that the supply of labour has decreased instead of increasing. Thus, the behaviour of supply depends upon the phenomenon considered and the degree of possible adjustment in supply.

The behaviour of supply is also affected by the time period under consideration. In the short run, it may not be easy to increase supply, but in the long run supply can be easily adjusted in response to changes in price.

The law of supply can be explained through a supply schedule and a supply curve. A supply schedule is the tabular presentation of the law of supply. It shows the different prices of a commodity and the corresponding quantities that suppliers are willing to offer for sale, with all other variables held constant. Consider the following hypothetical supply schedule of good X.

Table 10: Supply Schedule of Good 'X'

Price (₹) (per kg)	Quantity supplied (kg)
1	5
2	35
3	45
4	55
5	65

The table shows the quantities of good X that would be produced and offered for sale at a number of alternative prices. At Re 1, for example, 5 kilograms of good X are offered for sale and at ₹ 3 per kg. 45 kg. would be forthcoming for sale.

We can now plot the data in table 10 on a graph. In Figure 25, price is plotted on the vertical axis and quantity on the horizontal axis, and various price-quantity combinations of the schedule 10 are plotted.

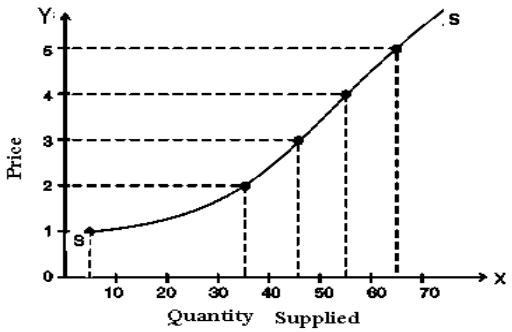


Fig. 25: Supply Curve

When we draw a smooth curve through the plotted points, what we get is the supply curve of good X. The supply curve is a graphical presentation of the supply schedule. The supply curve shows the quantity of a good that producers are willing to sell at a given price, holding constant any other factor that might affect the quantity supplied. The supply curve is thus a relationship between the quantity supplied and the price. To be more precise, the supply curve shows simultaneously:

(a) the highest quantity willingly supplied by the suppliers at each price and

(b) the minimum price which will induce suppliers to offer the various quantities for sale

The supply curve slopes upwards towards right (positive slope) showing that as price increases, the quantity supplied of X increases and vice-versa. This direct relationship between price and quantity is reflected in the positive slope of the supply curve.

The market supply, like market demand, is the sum of supplies of a commodity made by all individual firms or their supply agencies. The market supply of a commodity gives the amounts of the commodity supplied per time period at various alternative prices by all the producers of this commodity in the market. It is derived by adding the quantity supplied by each seller at different prices. The market supply curve for 'X' can be obtained by adding horizontally the supply curves of various firms. The market supply is governed by the law of supply and depends on all the factors that determine the individual producer's supply and, in addition, on the number of producers of the commodity in the market.

3.3 MOVEMENTS ON THE SUPPLY CURVE – INCREASE OR DECREASE IN THE QUANTITY SUPPLIED

When the supply of a good increase as a result of an increase in its price, we say that there is an increase in the quantity supplied and there is an upward movement on the supply curve. A rise in market price causes an expansion of supply; there is a upward movement on the supply curve and producers offer more for sale. When market price falls, there is contraction of supply as producers have less incentive to offer products for sale in the market. (See Figure 26)

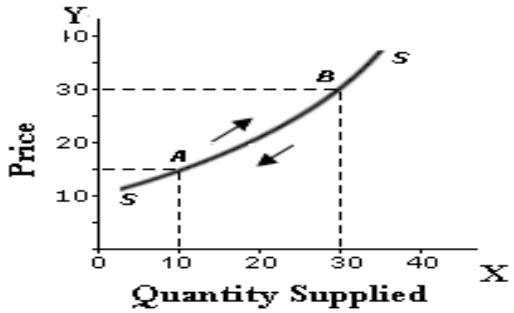


Fig. 26: Figure Showing Change in Quantity Supplied as a Result of Price Change

3.4 SHIFTS IN SUPPLY CURVE – INCREASE OR DECREASE IN SUPPLY

While a change in quantity supplied is a movement along a given supply curve, a change in supply is a shift of the supply curve. When the supply curve bodily shifts towards the right as a result of a change in one of the factors that influence the quantity supplied other than the commodity's own price, we say there is an increase in supply. When the supply curve shifts to the right, more is offered for sale at each price. In figure 27(i), we find that at price P, the quantity supplied rises from Q to Q1. When the factors other than price change and cause the supply curve to shift to the left, we call it decrease in supply. When the supply curve shifts to the left, less quantity is offered for sale at each price. In figure 27(ii), we find that at price P the quantity supplied falls from Q to Q1.

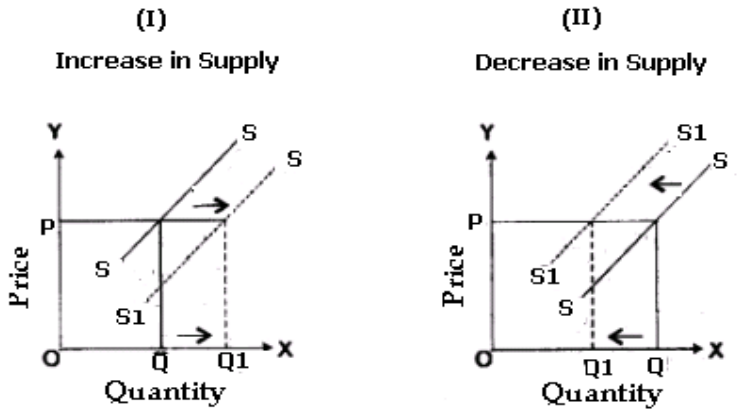


Fig. 27: Shifts in Supply Curves

Just as in the case of demand curves, a change in the price of a good itself will result in a movement along the supply curve and a change in quantity supplied, a change in any variable other than own-price will cause a shift in the supply curve, called a change in supply.

3.5 ELASTICITY OF SUPPLY

The elasticity of supply is defined as the responsiveness of the quantity supplied of a good to a change in its price. Elasticity of supply is measured by dividing the percentage change in quantity supplied of a good by the percentage change in its price i.e.,

$$E_s = \frac{\text{Percentage change in quantity supplied}}{\text{Percentage change in Price}}$$

Or

$$\frac{\dfrac{\text{Change in quantity supplied}}{\text{quantity supplied}}}{\dfrac{\text{Change in price}}{\text{Price}}}$$

or

$$\frac{\Delta\frac{q}{q}}{\Delta\frac{p}{p}} = \frac{q}{p} \times \frac{p}{q}$$

Where q denotes original quantity supplied.

Δq denotes change in quantity supplied.

p denotes original price.

Δp denotes change in price.

Example

a. Suppose the price of commodity X increases from ₹ 2,000 per unit to ₹ 2,100 per unit and consequently the quantity supplied rises from 2,500 units to 3,000 units. Calculate the elasticity of supply.

Here Δq = 500 units Δp = ₹100

p = ₹ 2000 q = 2500 units

$$\therefore E_s = \frac{500}{100} \times \frac{2000}{2500} = 4$$

Elasticity of Supply = 4.

3.5.0 Types of Supply Elasticity

The elasticity of supply can be classified as under:

(i) **Perfectly inelastic supply:** If as a result of a change in price, the quantity supplied of a good remains unchanged, we say that the elasticity of supply is zero or the good has perfectly inelastic supply (Es = 0.). The vertical supply curve in Figure 28 shows that irrespective of price change, the quantity supplied remains unchanged. In other words, the quantity supplied is unaffected by any change in price. As the elasticity rises, the supply curve gets flatter, which shows that the quantity supplied responds more to changes in price.

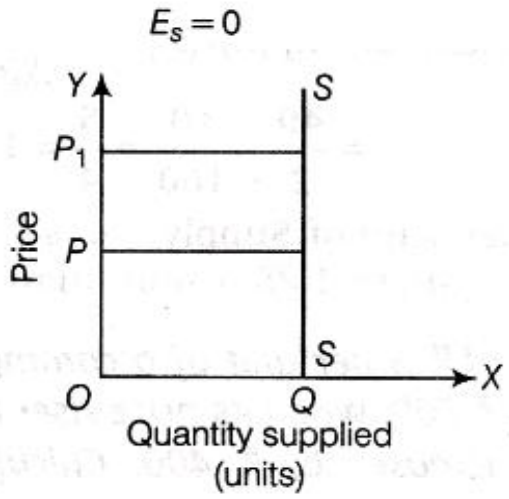


Fig. 28: Supply Curve of Zero Elasticity

(ii) **Relatively less-elastic supply:** If as a result of a change in the price of a good its supply changes less than proportionately, we say that the supply of the good is relatively less elastic or elasticity of supply is less than one. In this case, the coefficient of elasticity falls in the range 0 < Es < 1. The percentage change in quantity is less than the percentage change in price. In other words, the quantity is not very responsive to price. Figure 29 shows that the relative change in the quantity supplied (Δ*Q*) is less than the relative change in the price (Δ*P*).

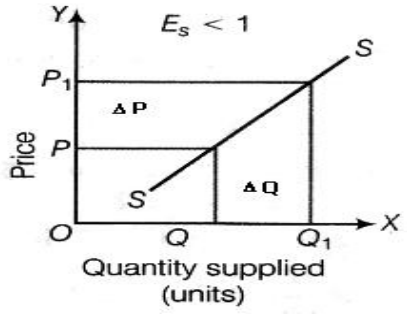


Fig. 29: Showing Relatively Less Elastic Supply

(iii) **Relatively greater-elastic supply :**If elasticity of supply is greater than one i.e., when the quantity supplied of a good changes substantially in response to a small change in the price of the good we say that supply is relatively elastic. The percentage change in quantity is greater than the percentage change in price. The coefficient of elasticity falls in the range 1 < E < ∞.Figure 30, shows that the relative change in the quantity supplied (Δ*Q*) is greater than the relative change in the price.

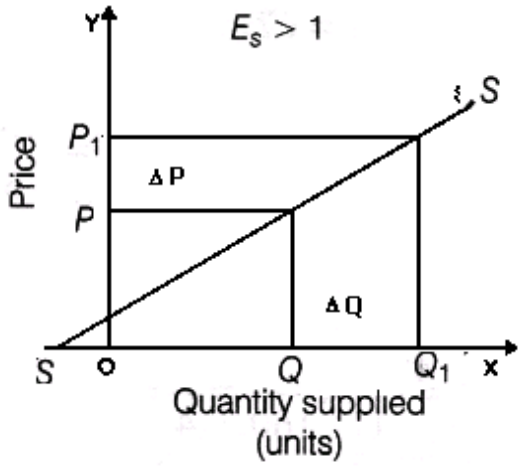


Fig. 30: Showing Relatively Greater Elastic Supply

(iv) **Unit-elastic:** In this case, the coefficient of elasticity is one.(Es = 1). If the relative change in the quantity supplied is exactly equal to the relative change in the price, the supply is said to be unitary elastic. The percentage change in quantity is equal to the percentage change in price. Unit elasticity is essentially a dividing line or boundary between the elastic and inelastic ranges. In Figure31, the relative change in the quantity supplied (ΔQ) is equal to the relative change in the price (ΔP).

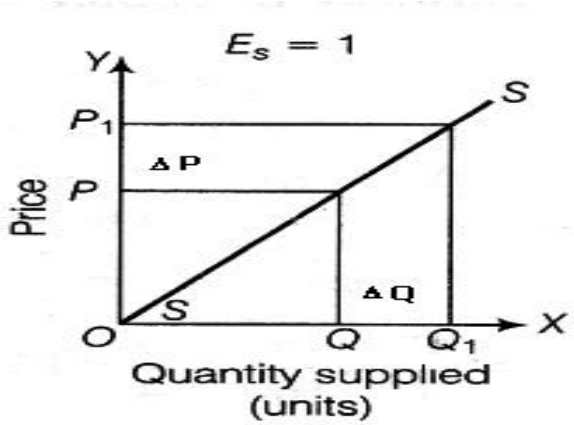


Fig. 31: Showing Unitary Elasticity

(v) **Perfectly elastic supply:** At the opposite extreme of zero elasticity supply is perfectly elastic. This occurs as the price elasticity of supply approaches infinity and the supply curve becomes horizontal. Elasticity of supply is said to be infinite (E = ∞)or perfectly elastic when nothing is supplied at a lower price and an infinitesimally small change in price results in an infinitely large change in quantity supplied indicating that producers will supply any quantity demanded at that price. Figure 32 shows infinitely elastic supply.

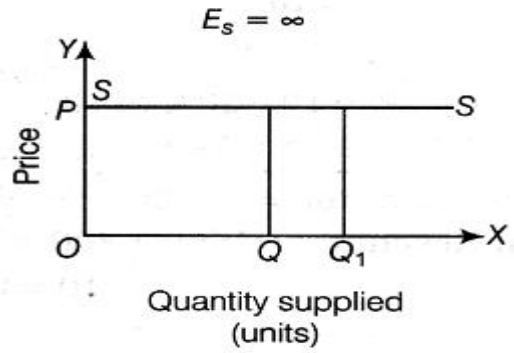


Fig. 32: Supply Curve of Infinite Elasticity

In some cases, the elasticity of supply is not constant but varies over the supply curve. Figure33 shows the case of an industry with limited capacity for production. For low levels of quantity supplied, firms respond substantially to changes in price. When there is a small rise in price from P1 to P2, the quantity supplied increases more than proportionately (Q1 to Q2). In this region, firms have idle capacity and therefore when price rises, they respond by increase in quantity supplied using the idle capacity available. Once firms reach their full capacity, further increase in production is possible only by building new plants and incurring expenses towards this. To induce firms to increase output, price must rise substantially (P3 to P4) and supply becomes less elastic.

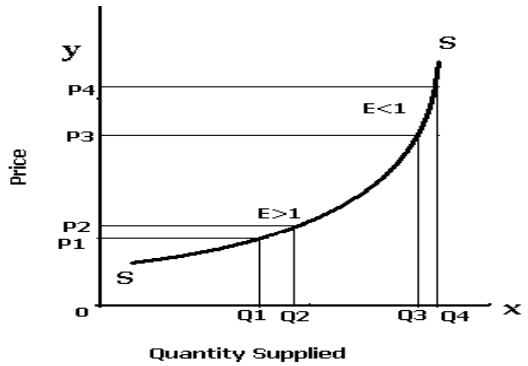


Fig. 33: Supply curve of Industry with Limited Production Capacity

3.5.1 Measurement of supply-elasticity

The elasticity of supply can be considered with reference to a given point on the supply curve or between two points on the supply curve. When elasticity is measured at a given point on the supply curve, it is called point elasticity. Just as in demand, point-elasticity of supply can be measured with the help of the following formula:

$$E_s = \frac{dp}{dp} \times \frac{p}{q}$$

Es: The Supply function is given as q = -100 + 10p. Find the elasticity of supply using point method, when price is ₹ 15.

$$E_s = \frac{dq}{dp} \times \frac{p}{q}$$

Since $\frac{dq}{dp}$ = 10, p = ₹ 15, q = - 100 + 10 (15)

$$q = 50$$

$$\therefore E_s = 10 \times \frac{15}{50}$$

or $E_S = 3$

Where $\frac{dq}{dp}$ is differentiation of the supply function with respect to price and p and q refer to price and quantity respectively.

Arc-Elasticity: Arc-elasticity i.e. elasticity of supply between two prices can be found out with the help of the following formula:

$$E_s = \frac{Q_2 - Q_1}{Q_2 + Q_1} \times \frac{P_2 + P_1}{P_2 - P_1}$$

Where P_1 & Q_1 are original price and quantity and P_2 &Q_2 are new price and quantity supplied.

Thus, if we have to find elasticity of supply when P_1= ₹12, P_2 = ₹ 15, Q_1 = 20 units and Q_2= 50 units.

Then using the above formula, we will get supply elasticity as:

$$E_s = \frac{50 - 20}{50 + 20} \times \frac{15 + 12}{15 - 12}$$

$$= \frac{30}{70} \times \frac{27}{3} = +3.85$$

3.5.2 Determinants of Elasticity of Supply

The price elasticity of supply depends on the flexibility sellers have, to change the amount of the good they produce and sell. The more easily sellers can change the quantity they produce, the greater the price elasticity of supply. Following are the general determinants of elasticity of supply:

- If increase in production causes substantial increase in costs, producers will have less incentive to increase quantity supplied in response to increase in price and therefore, price elasticity of supply would be less. If there are constant costs or negligible rise in costs as output increases, supply will be elastic. Products that involve more complex production processes or require relatively longer time to produce exhibit lower elasticity of supply. For example the supply of aircrafts and cruise ships is less elastic compared to supply of motor bikes.
- The longer the period of time, the more responsive the quantity supplied to changes in price and the greater the supply elasticity. A shorter time period does not allow sellers sufficient time to find resources and alternatives and to adjust their production decisions

to changes in price. In the long run, firms can build new plants or new firms may be able to enter the market and increase the supply.

- Supply is more elastic when there is large number of producers and there is high degree of competition among them. Supply elasticity is also higher when there are fewer barriers of entry into the market.
- Supply will be elastic if firms are not working to full capacity. If spare production capacity is available with the firms, they can increase output without a rise in costs. The greater the spare capacity available, the greater will be the elasticity of supply.
- If key raw materials and inputs are easily and cheaply available, then supply will be elastic. If drawing productive resources into the industry is easier, the supply curve is more elastic. In case it is difficult to procure resources economically, the cost of production increases and supply will become less elastic.
- If firms have adequate stocks of raw materials, components and finished products, they will be able to respond with higher supply as price rises. Generally, those commodities which can be easily and inexpensively stored without losing value may have elastic supply.
- The ease with which factor substitution can be made and the costs of such factor substitution also determine price elasticity of supply. If the factors of production used in the production of the commodity are commonly available and can be easily substituted or increased, then the firms will be able to produce quickly and respond to an increase in price. If a production process involves use of materials which are in short supply, or those that take longer delivery period or which are highly specialized, then supply elasticity will be low. If the labour employed is scarce or are required to be highly skilled and specific and if they require longer training period, then elasticity of supply will be low. For example, physicians in healthcare industry and chartered accountants in accounting service.
- If both capital and labour are occupationally mobile, then the elasticity of supply for a product is higher than if capital and labour cannot be easily switched. For example, a printing press can easily switch between printing magazines and greeting cards. Similarly falling prices of a particular vegetable encourage farmers to switch to the production of another. Products which are more continuously produced have greater supply elasticity than those which are produced infrequently.
- Expectations about future prices also affect elasticity of supply. Expectation of substantial rise in prices in future will make the sellers respond less to a current rise in price.

3.6. EQUILIBRIUM PRICE

In the previous sections, we have discussed both demand and supply theories. We shall now use demand and supply to determine equilibrium market price. The equilibrium price in a market is determined by the intersection between demand and supply. It is also called the market equilibrium. At this price, the amount that the buyers want to buy is equal to the amount that sellers want to sell. The competitive market equilibrium represents the 'unique' point at which both consumers and suppliers are satisfied with price and quantity. Equilibrium price is also called market clearing price.

The determination of market price is the central theme of micro economic analysis. Hence, micro-economic theory is also called price theory.

The following table presents the concept of the equilibrium price

Table 11: Supply and Demand Schedule

Price (₹)	Quantity Demanded	Quantity Supplied	Impact on price
5	6	31	Downward
4	12	25	Downward
3	19	19	Equilibrium
2	25	12	Upward
1	31	6	Upward

The equilibrium between demand and supply is depicted in the diagram below. Demand and supply are in equilibrium at point E where the two curves intersect each other. It means that only at price ₹ 3 the quantity demanded is equal to the quantity supplied. The equilibrium quantity is 19 units and these are exchanged at price ₹ 3. If the price is more than the equilibrium level, excess supply will push the price downwards as there are few takers in the market at this price. For example, in Table 11, if price is say ₹ 5, quantity demanded is 6 units which is quite less than the quantity supplied (31 units). There will be excess supply in the market which will force the sellers to reduce price if they want to sell off their product. Hence the price will fall and continue falling till it reaches the level where the quantity demanded becomes equal to the quantity supplied. Opposite will happen when quantity demanded is more than the quantity supplied at a particular price.

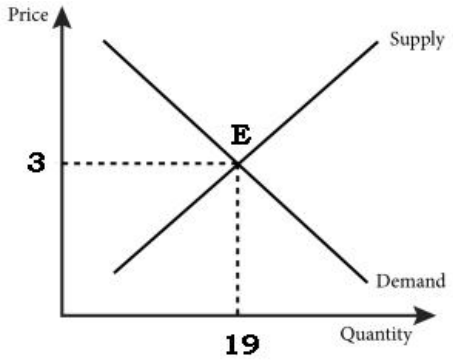


Fig. 34: Equilibrium Price

3.6.1 Market Equilibrium and Social Efficiency

Social efficiency represents the net gains to society from all exchanges that are made in a particular market. It consists of two components: consumer surplus and producer surplus. We have already learned that consumer surplus is a measure of consumer welfare. There is welfare gain to producers as well when they participate in the market, namely producer surplus. Producer surplus is the benefit derived by producers from the sale of a unit above and beyond their cost of producing that unit. This occurs when the price they receive in the market is more than the minimum price at which they would be prepared to supply. It is represented by the area above the supply curve and below the price line

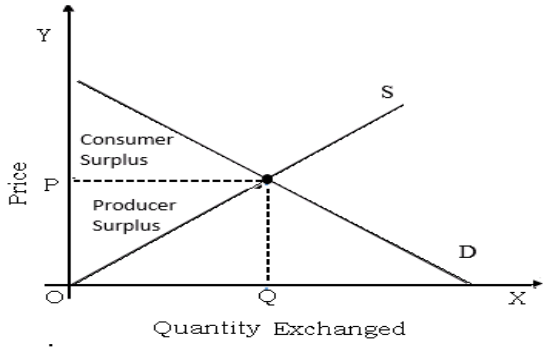


Fig. 35: Equilibrium Price and Social Efficiency

For all quantities below OQ, we find that there is a difference between the price that producers are willing to accept for supplying the good and the price that prevails in the market (P). Producer surplus disappears when market price is at equilibrium i.e the price at which sellers are willing to offer for sale is equal to the price that they receive.

From figure 35, we find that at price P, when the market is in equilibrium, social efficiency is achieved with both producers and consumers enjoying maximum possible surplus.

SUMMARY

- Supply means the quantity of goods (or commodities) offered for sale at a particular price at a certain point of time. Supply always relates to price.
- The determinants of supply other than its own price are: prices of the related goods, prices of factors of production, state of technology, government policy and other factors.
- The law of supply states that when the price of the good rises, the corresponding quantity supplied increases and when the price reduces, the quantity supplied also reduces. There is a direct relationship between price and quantity supplied.
- The supply curve establishes the relationship between the amount of supply and the price. It is an upward sloping curve showing a positive relationship between price and quantity supplied.
- When the supply of a good increases as a result of an increase in its price we say that there is an increase in the quantity supplied and there is an upward movement on the supply curve. The reverse is the case when there is a fall in the price of the good.
- Elasticity of supply means the responsiveness of supply to change in the price of the commodity.
- The elasticity of supply can be classified in to perfectly inelastic supply, relatively less-elastic supply, relatively greater-elastic supply, unit-elastic and perfectly elastic supply.
- The measurement of supply-elasticity is of two types- point elasticity and arc-elasticity.
- Elasticity of supply can be considered with reference to a given point on the supply curve (point elasticity) or between two points on the supply curve (arc elasticity).
- The general determinants of elasticity of supply are change in costs as output changes, complexity of production processes, the time period, number of producers and degree of competition, barriers of entry into the market, availability of spare production capacity, availability and stocks of key raw materials and inputs, the ease of factor substitution and mobility and expectations about future prices
- Equilibrium price is one at which the wishes of both the buyers and the sellers are satisfied. At this price, the amount that buyers want to buy and sellers want to sell will be equal.

- The welfare gain to producers is producer surplus, which is the benefit derived by producers from the sale of a unit above and beyond their cost of producing that unit. This occurs when the price they receive in the market is more than the minimum they would be prepared to supply for.
- At equilibrium price, when the market is in equilibrium, social efficiency is achieved with maximum social surplus to both producers and consumers enjoying maximum possible surplus.

TEST YOUR KNOWLEDGE

Multiple Choice Questions

1. *Demand for a commodity refers to:*
   - *(a) desire backed by ability to pay for the commodity.*
   - *(b) need for the commodity and willingness to pay for it*
   - *(c) the quantity demanded of that commodity at a certain price.*
   - *(d) the quantity of the commodity demanded at a certain price during any particular period of time.*
2. *Contraction of demand is the result of :*
   - *(a) decrease in the number of consumers.*
   - *(b) increase in the price of the good concerned.*
   - *(c) increase in the prices of other goods.*
   - *(d) decrease in the income of purchasers.*
3. *All but one of the following are assumed to remain the same while drawing an individual's demand curve for a commodity. Which one is it?*
   - *(a) The preference of the individual.*
   - *(b) His monetary income.*
   - *(c) Price of the commodity*
   - *(d) Price of related goods.*
4. *Which of the following pairs of goods is an example of substitutes?*
   - *(a) Tea and sugar.*

(b) *Tea and coffee.*

(c) *Pen and ink.*

(d) *Shirt and trousers.*

5. *In the case of a straight line demand curve meeting the two axes, the price-elasticity of demand at the mid-point of the line would be:*

(a) *0*

(b) *1*

(c) *1.5*

(d) *2*

6. *The Law of Demand, assuming other things to remain constant, establishes the relationship between:*

(a) *income of the consumer and the quantity of a good demanded by him.*

(b) *price of a good and the quantity demanded.*

(c) *price of a good and the demand for its substitute.*

(d) *quantity demanded of a good and the relative prices of its complementary goods.*

7. *Identify the factor which generally keeps the price-elasticity of demand for a good low:*

(a) *Variety of uses for that good.*

(b) *Very low price of a commodity*

(c) *Close substitutes for that good.*

(d) *High proportion of the consumer's income spent on it.*

8. *Identify the coefficient of price-elasticity of demand when the percentage increase in the quantity of a good demanded is smaller than the percentage fall in its price:*

(a) *Equal to one.*

(b) *Greater than one.*

(c) *Less than one.*

(d) *Zero.*

9. *In the case of an inferior good, the income elasticity of demand is:*

(a) *positive.*

(b) Zero.

(c) Negative.

(d) infinite.

10. If the demand for a good is inelastic, an increase in its price will cause the total expenditure of the consumers of the good to:

(a) Remain the same.

(b) Increase.

(c) Decrease.

(d) Any of these.

11. If regardless of changes in its price, the quantity demanded of a good remains unchanged, then the demand curve for the good will be:

(a) horizontal.

(b) Vertical.

(c) positively sloped.

(d) negatively sloped.

12. Suppose the price of Pepsi increases, we will expect the demand curve of Coca Cola to:

(a) Shift towards left since these are substitutes

(b) Shift towards right since these are substitutes

(c) Remain at the same level

(d) None of the above

13. All of the following are determinants of demand except:

(a) Tastes and preferences.

(b) Quantity supplied.

(c) Income of the consumer

(d) Price of related goods.

14. A movement along the demand curve for soft drinks is best described as:

(a) An increase in demand.

(b) A decrease in demand.

(c) *A change in quantity demanded.*

(d) *A change in demand.*

15. *If the price of Pepsi decreases relative to the price of Coke and 7-UP, the demand for:*

(a) *Coke will decrease.*

(b) *7-Up will decrease.*

(c) *Coke and 7-UP will increase.*

(d) *Coke and 7-Up will decrease.*

16. *If a good is a luxury, its income elasticity of demand is:*

(a) *Positive and less than 1.*

(b) *Negative but greater than -1.*

(c) *Positive and greater than 1.*

(d) *Zero.*

17. *The price of hot dogs increases by 22% and the quantity of hot dogs demanded falls by 25%. This indicates that demand for hot dogs is:*

(a) *Elastic.*

(b) *Inelastic.*

(c) *Unitarily elastic.*

(d) *Perfectly elastic.*

18. *If the quantity demanded of mutton increases by 5% when the price of chicken increases by 20%, the cross-price elasticity of demand between mutton and chicken is*

(a) *-0.25*

(b) *0.25*

(c) *-4*

(d) *4*

19. *Given the following four possibilities, which one results in an increase in total consumer expenditure?*

(a) *Demand is unitary elastic and price falls.*

(b) *Demand is elastic and price rises.*

(c) *Demand is inelastic and price falls.*

(d) *Demand is inelastic and prices rises.*

20. *Which of the following statements about price elasticity of supply is correct?*

(a) *Price elasticity of supply is a measure of how much the quantity supplied of a good responds to a change in the price of that good*

(b) *Price elasticity of supply is computed as the percentage change in quantity supplied divided by the percentage change in price*

(c) *Price elasticity of supply in the long run would be different from that of the short run*

(d) *All the above*

21. *Which of the following is an incorrect statement?*

(a) *When goods are substitutes, a fall in the price of one (ceteris paribus) leads to a fall in the quantity demanded of its substitutes.*

(b) *When commodities are complements, a fall in the price of one (other things being equal) will cause the demand of the other to rise*

(c) *As the income of the consumer increases, the demand for the commodity increases always and vice versa.*

(d) *When a commodity becomes fashionable people prefer to buy it and therefore its demand increases*

22. *Suppose the price of movies seen at a theatre rises from ₹ 120 per person to ₹ 200 per person. The theatre manager observes that the rise in price causes attendance at a given movie to fall from 300 persons to 200 persons. What is the price elasticity of demand for movies? (Use Arc Elasticity Method)*

(a) *.5*

(b) *.8*

(c) *1.0*

(d) *1.2*

23. *Suppose a department store has a sale on its silverware. If the price of a plate-setting is reduced from ₹ 300 to ₹ 200 and the quantity demanded increases from 3,000 plate-*

settings to 5,000 plate-settings, what is the price elasticity of demand for silverware? (Use Arc Elasticity Method)

(a) .8

(b) 1.0

(c) 1.25

(d) 1.50

24. *When the numerical value of cross elasticity between two goods is very high, it means*

(a) The goods are perfect complements and therefore have to be used together

(b) The goods are perfect substitutes and can be used with ease in place of one another

(c) There is a high degree of substitutability between the two goods

(d) The goods are neutral and therefore cannot be considered as substitutes

25. *If the local pizzeria raises the price of a medium pizza from ₹ 60 to ₹ 100 and quantity demanded falls from 700 pizzas a night to 100 pizzas a night, the price elasticity of demand for pizzas is :(Use Arc Elasticity Method)*

(a) .67

(b) 1.5

(c) 2.0

(d) 3.0

26. *If electricity demand is inelastic, and electricity charges increase, which of the following is likely to occur?*

(a) Quantity demanded will fall by a relatively large amount.

(b) Quantity demanded will fall by a relatively small amount.

(c) Quantity demanded will rise in the short run, but fall in the long run.

(d) Quantity demanded will fall in the short run, but rise in the long run.

27. *Suppose the demand for meals at a medium-priced restaurant is elastic. If the management of the restaurant is considering raising prices, it can expect a relatively:*

(a) Large fall in quantity demanded.

(b) Large fall in demand.

(c) Small fall in quantity demanded.

(d) *Small fall in demand.*

28. *Point elasticity is useful for which of the following situations?*

(a) *The bookstore is considering doubling the price of notebooks.*

(b) *A restaurant is considering lowering the price of its most expensive dishes by 50 percent.*

(c) *An auto producer is interested in determining the response of consumers to the price of cars being lowered by ₹ 100.*

(d) *None of the above.*

29. *A decrease in price will result in an increase in total revenue if:*

(a) *The percentage change in quantity demanded in less than the percentage change in price.*

(b) *The percentage change in quantity demanded is greater than the percentage change in price.*

(c) *Demand is inelastic.*

(d) *The consumer is operating along a linear demand curve at a point at which the price is very low and the quantity demanded is very high.*

30. *An increase in price will result in an increase in total revenue if:*

(a) *The percentage change in quantity demanded is less than the percentage change in price.*

(b) *The percentage change in quantity demanded is greater than the percentage change in price.*

(c) *Demand is elastic.*

(d) *The consumer is operating along a linear demand curve at a point at which the price is very high and the quantity demanded is very low.*

31. *Demand for a good will tend to be more elastic if it exhibits which of the following characteristics?*

(a) *It represents a small part of the consumer's income.*

(b) *The good has many substitutes available.*

(c) *It is a necessity (as opposed to a luxury).*

(d) *There is little time for the consumer to adjust to the price change.*

32. *Demand for a good will tend to be more inelastic if it exhibits which of the following characteristics?*

(a) *The good has many substitutes.*

(b) *The good is a luxury (as opposed to a necessity).*

(c) *The good is a small part of the consumer's income.*

(d) *There is a great deal of time for the consumer to adjust to the change in prices.*

33. *Suppose a consumer's income increases from ₹ 30,000 to ₹ 36,000. As a result, the consumer increases her purchases of compact discs (CDs) from 25 CDs to 30 CDs. What is the consumer's income elasticity of demand for CDs? (Use Arc Elasticity Method)*

(a) *0.5*

(b) *1.0*

(c) *1.5*

(d) *2.0*

34. *Total utility is maximum when:*

(a) *Marginal utility is zero.*

(b) *Marginal utility is at its highest point.*

(c) *Marginal utility is negative*

(d) *None of the above*

35. *Which one is not an assumption of the theory of demand based on analysis of indifference curves?*

(a) *Given scale of preferences as between different combinations of two goods.*

(b) *Diminishing marginal rate of substitution.*

(c) *Diminishing marginal utility of money*

(d) *Consumers would always prefer more of a particular good to less of it, other things remaining the same.*

36. *An indifference curve slopes down towards right since more of one commodity and less of another result in:*

(a) *Same level of satisfaction.*

(b) *Greater satisfaction.*

(c) *Maximum satisfaction.*

(d) *Any of the above*

37. *Suppose that workers in a steel plant managed to force a significant increase in their wage package. How would the new wage contract be likely to affect the market supply of steel, other things remaining the same?*

(a) *Supply curve will shift to the left.*

(b) *Supply curve will shift to the right.*

(c) *Supply will not shift, but the quantity of cars produced per month will decrease.*

(d) *Supply will not shift, but the quantity of cars produced per month will increase.*

38. *Which of the following statements is incorrect?*

(a) *An indifference curve must be downward-sloping to the right.*

(b) *Convexity of a curve implies that the slope of the curve diminishes as one moves from left to right.*

(c) *The income elasticity for inferior goods to a consumer is positive*

(d) *The total effect of a change in the price of a good on its quantity demanded is called the price effect.*

39. *The successive units of stamps collected by a little boy give him greater and greater satisfaction. This is a clear case of*

(a) *Operation of the law of demand.*

(b) *Consumer surplus enjoyed in hobbies and rare collections*

(c) *Exception to the law of diminishing utility.*

(d) *None of the above*

40. *What will happen in the rice market if buyers are expecting higher rice prices in the near future?*

(a) *The demand for rice will increase and the demand curve will shift to the right*

(b) *The demand for rice will decrease and the demand curve will shift to the left*

(c) *The demand for rice will be unaffected as it is a necessity*

(d) *The demand for wheat will increase and the demand curve will shift to the right*

41. *In the case of a Giffen good, the demand curve will usually be:*

(a) *horizontal.*

(b) *downward-sloping to the right.*

(c) *vertical.*

(d) *upward-sloping to the right.*

42. *By consumer surplus, economists mean*

(a) *The area inside the budget line above the price of the commodity*

(b) *The area between the average revenue and marginal revenue curves.*

(c) *The difference between the maximum amount that a person is willing to pay for a good and its market price.*

(d) *The difference between the market price and the supply curve*

43. *Which of the following is a property of an indifference curve?*

(a) *It is convex to the origin due to diminishing marginal rate of substitution*

(b) *The marginal rate of substitution is constant as you move along an indifference curve.*

(c) *Marginal utility is constant as you move along an indifference curve.*

(d) *Total utility is greatest where the budget line cuts the indifference curve.*

44. *When economists speak of the utility of a certain good, they are referring to*

(a) *The demand for the good.*

(b) *The usefulness of the good in consumption.*

(c) *The expected satisfaction derived from consuming the good.*

(d) *The rate at which consumers are willing to exchange one good for another.*

45. *A vertical supply curve parallel to Y axis implies that the elasticity of supply is:*

(a) *Zero*

(b) *Infinity*

(c) *Equal to one*

(d) *Greater than zero but less than infinity.*

46. *For a normal good with a downward sloping demand curve:*

(a) *The price elasticity of demand is negative; the income elasticity of demand is negative.*

(b) *The price elasticity of demand is positive; the income elasticity of demand is negative.*

(c) *The price elasticity of demand is positive; the income elasticity of demand is positive.*

(d) *The price elasticity of demand is negative; the income elasticity of demand is positive.*

47. *An increase in the supply of a good is caused by :*

(a) *Improvements in its production technology*

(b) *Fall in the prices of other goods which can be produced using the same inputs.*

(c) *Fall in the prices of factors of production used in its production.*

(d) *all of the above.*

48. *Elasticity of supply refers to the degree of responsiveness of supply of a good to changes in its:*

(a) *Demand.*

(b) *Price.*

(c) *Cost of production.*

(d) *State of technology.*

49. *A horizontal supply curve parallel to the quantity axis implies that the elasticity of supply is:*

(a) *Zero.*

(b) *Infinite.*

(c) *Equal to one.*

(d) *Greater than zero but less than one.*

50. *Contraction of supply is the result of:*

(a) *Decrease in the number of producers.*

(b) *Decrease in the price of the good concerned.*

(c) *Increase in the prices of other goods.*

(d) *Decrease in the outlay of sellers.*

51. *Conspicuous goods are also known as*

(a) *Prestige goods*

(b) *Snob goods*

(c) *Veblen goods*

(d) *All of the above*

52. *The quantity purchased remains constant irrespective of the change in income. This is known as*

(a) *negative income elasticity of demand*

(b) *income elasticity of demand less than one*

(c) *zero income elasticity of demand*

(d) *income elasticity of demand is greater than one*

53. *As income increases, the consumer will go in for superior goods and consequently the demand for inferior goods will fall. This means inferior goods have*

(a) *income elasticity of demand less than one*

(b) *negative income elasticity of demand*

(c) *zero income elasticity of demand*

(d) *unitary income elasticity of demand*

54. *When income increases the money spent on necessaries of life may not increase in the same proportion. This means*

(a) *income elasticity of demand is zero*

(b) *income elasticity of demand is one*

(c) *income elasticity of demand is greater than one*

(d) *income elasticity of demand is less than one*

55. *The luxury goods like jewellery and fancy articles will have*

(a) *low income elasticity of demand*

(b) *high income elasticity of demand*

(c) *zero income elasticity of demand*

(d) *none of the above*

56. *A good which cannot be consumed more than once is known as*

(a) *Durable good*

(b) *Non-durable good*

(c) *Producer good*

(d) *None of the above*

57. *A relative price is*

(a) *price expressed in terms of money*

(b) *what you get paid for babysitting your cousin*

(c) *the ratio of one money price to another*

(d) *equal to a money price*

58. *A point below the budget line of a consumer*

(a) *Represents a combination of goods which costs the whole of consumer's income*

(b) *Represents a combination of goods which costs less than the consumer's income*

(c) *Represents a combination of goods which is unattainable to the consumer given his/her money income*

(d) *Represents a combination of goods which costs more than the consumers' income*

59. *Demand is the*

(a) *the desire for a commodity given its price and those of related commodities*

(b) *the entire relationship between the quantity demanded and the price of a good other things remaining the same*

(c) *willingness to pay for a good if income is larger enough*

(d) *ability to pay for a good*

60. *Suppose potatoes have (-).0.4 as income elasticity. We can say from the data given that:*

(a) *Potatoes are superior goods.*

(b) *Potatoes are necessities.*

(c) *Potatoes are inferior goods.*

(d) *There is a need to increase the income of consumers so that they can purchase potatoes.*

61. *The price of tomatoes increases and people buy tomato puree. You infer that tomato puree and tomatoes are*

(a) *Normal goods*

(b) *Complements*

(c) *Substitutes*

(d) *Inferior goods*

62. *Chicken and fish are substitutes. If the price of chicken increases, the demand for fish will*

(a) *Increase or decrease but the demand curve for chicken will not change*

(b) *Increase and the demand curve for fish will shift rightwards.*

(c) *Not change but there will be a movement along the demand curve for fish.*

(d) *Decrease and the demand curve for fish will shift leftwards.*

63. *Potato chips and popcorn are substitutes. A rise in the price of potato chips will ———— the demand for popcorn and the quantity of popcorn sold will ————*

(a) *increase; increase*

(b) *increase; decrease*

(c) *decrease; decrease*

(d) *decrease; increase*

64. *If the price of orange Juice increases, the demand for apple Juice will _____.*

(a) *increase because they are substitutes*

(b) *decrease because they are substitutes*

(c) *remain the same because real income is increased*

(d) *decrease as real income decreases*

65. *An increase in the demand for computers, other things remaining same, will:*

(a) *Increase the number of computers bought.*

(b) *Decrease the price but increase the number of computers bought.*

(c) *Increase the price of computers.*

(d) *Increase the price and number of computers bought.*

66. *When total demand for a commodity whose price has fallen increases, it is due to:*

(a) *Income effect.*

(b) *Substitution effect*

(c) *Complementary effect*

(d) *Price effect*

67. *With a fall in the price of a commodity:*

(a) *Consumer's real income increases*

(b) *Consumer's real income decreases*

(c) *There is no change in the real income of the consumer*

(d) *None of the above*

68. *With an increase in the price of diamond, the quantity demanded also increases. This is because it is a:*

(a) *Substitute good*

(b) *Complementary good*

(c) *Conspicuous good*

(d) *None of the above*

69. *An example of goods that exhibit direct price-demand relationship is*

(a) *Giffen goods*

(b) *Complementary goods*

(c) *Substitute goods*

(d) *None of the above*

70. *In Economics, when demand for a commodity increases with a fall in its price it is known as:*

(a) *Contraction of demand*

(b) *Expansion of demand*

(c) *No change in demand*

(d) *None of the above*

71. *The quantity supplied of a good or service is the amount that*

(a) *is actually bought during a given time period at a given price*

(b) *producers wish they could sell at a higher price*

(c) *producers plan to sell during a given time period at a given price*

(d) *people are willing to buy during a given time period at a given price*

72. *Supply is the*

(a) *limited resources that are available with the seller*

(b) *cost of producing a good*

(c) *entire relationship between the quantity supplied and the price of good.*

(d) *Willingness to produce a good if the technology to produce it becomes available*

73. *In the book market, the supply of books will decrease if any of the following occurs except*

(a) *a decrease in the number of book publishers*

(b) *a decrease in the price of the book*

(c) *an increase in the future expected price of the book*

(d) *an increase in the price of paper used.*

74. *If price of computers increases by 10% and supply increases by 25%. The elasticity of supply is :*

(a) *2.5*

(b) *0.4*

(c) *(-) 2.5*

(d) *(-) 0.4*

75. *An increase in the number of sellers of bikes will increase the*

(a) *The price of a bike*

(b) *Demand for bikes*

(c) *The supply of bikes*

(d) *Demand for helmets*

76. *If the supply of bottled water decreases, other things remaining the same, the equilibrium price ———————————— and the equilibrium quantity ————————*

(a) *increases; decreases*

(b) *decreases; increases*

(c) *decreases; decreases*

(d) *increases; increases*

77. *A decrease in the demand for cameras, other things remaining the same will*

(a) *Increase the number of cameras bought*

(b) *Decrease the price but increase the number of cameras bought*

(c) *Decrease in quantity of camera demanded*

(d) *Decrease the price and decrease in the number of cameras bought.*

78. *Which of the following statements about inferior goods is/are false?*

I. Inferior goods are those that we will never buy, no matter how cheap they are.

II. Inferior goods are those that we buy more of, if we become poorer.

III. Inferior goods are those that we buy more of, if we become richer.

(a) *I and III only.*

(b) *I only*

(c) *III only.*

(d) *I, II, and III.*

79. *Comforts lie between*

(a) *inferior goods and necessaries*

(b) *luxuries and inferior goods*

(c) *necessaries and luxuries*

(d) *none of the above*

80. *In a very short period, the supply*

(a) *can be changed*

(b) *can not be changed*

(c) *can be increased*

(d) *none of the above*

81. *When supply curve moves to the left, it means*

(a) *lesser quantity is supplied at a given price*

(b) *larger quantity is supplied at a given price*

(c) *prices have fallen and quantity is supplied at a lower price*

(d) *none of the above*

82. *When supply curve moves to right, it means*

(a) *supply increases and more quantity is supplied at a given price*

(b) *supply decreases and less quantity is supplied at a given price*

(c) *supply remains constant at a given price*

(d) *none of the above*

83. *The elasticity of supply is defined as the*

(a) *responsiveness of the quantity supplied of a good to a change in its price*

(b) *responsiveness of the quantity supplied of a good without change in its price*

(c) *responsiveness of the quantity demanded of a good to a change in its price*

(d) *responsiveness of the quantity demanded of a good without change in its price*

84. *Elasticity of supply is measured by dividing the percentage change in quantity supplied of a good by ————————————*

(a) *Percentage change in income*

(b) *Percentage change in quantity demanded of goods*

(c) *Percentage change in price*

(d) *Percentage change in taste and preference*

85. *Elasticity of supply is zero means*

(a) *perfectly inelastic supply*

(b) *perfectly elastic supply*

(c) *imperfectly elastic supply*

(d) *none of the above*

86. *Elasticity of supply is greater than one when*

(a) *Proportionate change in quantity supplied is more than the proportionate change in price.*

(b) *Proportionate change in price is greater than the proportionate change in quantity supplied.*

(c) *change in price and quantity supplied are equal*

(d) None of the above

87. If the quantity supplied is exactly equal to the relative change in price then the elasticity of supply is

(a) Less than one

(b) Greater than one

(c) One

(d) None of the above

88. The price of a commodity decreases from ₹ 6 to ₹ 4 and the quantity demanded of the good increases from 10 units to 15 units. Find the coefficient of price elasticity.

(a) 1.5

(b) 2.5

(c) -1.5

(d) 0.5

89. The supply function is given as Q= -100 + 10P. Find the elasticity using point method, when price is ₹ 15.

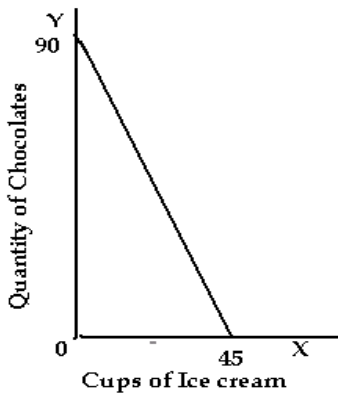
(a) 4

(b) -3

(c) -5

(d) 3

90. The figure below shows the budget constraint of a consumer with an income of ₹ 900/- to spend on two commodities, namely ice cream and chocolates.



The prices of these two commodities respectively are:

(a) ₹ 10 and ₹ 20

(b) ₹ 20 and ₹ 10

(c) ₹ 10 and ₹ 5

(d) Any of the above

91. *'No matter what the price of coffee is, Arjun always spend a total of exactly 100 per week on coffee.' The statement implies that:*

(a) Arjun is very fond of coffee and therefore he has an inelastic demand for coffee

(b) Arjun has elastic demand for coffee

(c) Arjun's demand for coffee is relatively less elastic

(d) Arjun's demand for coffee is unit elastic

92. *A firm learns that the own price elasticity of a product it manufactures is 3.5. What would be the correct action for this firm to take if it wishes to raise its total revenue?*

(a) Lower the price because demand for the good is elastic.

(b) Raise the price because demand for the product is inelastic.

(c) Raise the price because demand is elastic.

(d) We need information in order to answer this question.

93. *At higher prices people demand more of certain goods not for their worth but for their prestige value – This is called*

(a) Veblen effect

(b) Giffens paradox

(c) Speculative effect

(d) None of the above

94. *If the price of air-conditioner increases from ₹ 30,000 to ₹ 30,010 and resultant change in demand is negligible, we use the measure of _____ to measure elasticity.*

(a) Point elasticity of demand since it is a small change

(b) Arc elasticity of demand since it is a small change

(c) Price elasticity based on average prices method

(d) Any of the above

95. *Given the following four possibilities, which one will result in an increase in total expenditure of the consumer?*

(a) *Demand is unit elastic and price rises*

(b) *Demand is elastic and price rises*

(c) *Demand is inelastic and price falls*

(d) *demand is inelastic and price rises*

96. *The supply curve shifts to the right because of————————*

(a) *improved technology*

(b) *increased price of factors of production*

(c) *increased excise duty*

(d) *all of the above*

97. *Which of the following statements is correct?*

(a) *When the price falls the quantity demanded falls*

(b) *Seasonal changes do not affect the supply of a commodity*

(c) *Taxes and subsidies do not influence the supply of the commodity*

(d) *With lower cost, it is profitable to supply more of the commodity.*

98. *If the demand is more than supply, then the pressure on price will be*

(a) *Upward*

(b) *Downward*

(c) *Constant*

(d) *None of the above*

99. *The supply curve for highly perishable commodities during very short period is generally ——*

(a) *Elastic*

(b) *Inelastic*

(c) *Perfectly elastic*

(d) *Perfectly inelastic*

100. *Supply is a _____ concept.*

(a) *Stock*

(b) *Flow and stock*

(c) *Flow*

(d) *None of the above*

101. *The cross elasticity between Rye bread and Whole Wheat bread is expected to be:*

(a) *Positive*

(b) *Negative*

(c) *Zero*

(d) *Can't say*

102. *The cross elasticity between personal computers and soft wares is:*

(a) *Positive*

(b) *Zero*

(c) *Negative*

(d) *One*

103. *The cross elasticity between Bread and DVDs is:*

(a) *Positive*

(b) *Negative*

(c) *Zero*

(d) *One*

104. *Which of the following statements is correct?*

(a) *With the help of statistical tools, the demand can be forecasted with perfect accuracy*

(b) *The more the number of substitutes of a commodity, the more elastic is the demand.*

(c) *Demand for butter is perfectly elastic.*

(d) *Gold jewellery will have negative income elasticity.*

105. *Suppose the income elasticity of education in private school in India is 3.6. What does this indicate:*

(a) *Private school education is highly wanted by rich*

(b) *Private school education is a necessity.*

(c) *Private school education is a luxury.*

(d) *We should have more private schools.*

106. *If the organizers of an upcoming cricket match decide to increase the ticket price in order to raise its revenues, what they have learned from past experience is;*

(a) *The percentage increase in ticket rates will be always equal the percentage decrease in tickets sold*

(b) *The percentage increase in ticket rates will be always greater than the percentage decrease in tickets sold*

(c) *The percentage increase in ticket rates will be less than the percentage decrease in tickets sold*

(d) *(a) and (c) above are true*

107. *Data on production of vegetables for the past two years showed that, despite stable prices, there is a substantial decline in output of cabbage leading to lower supply into the market. Which of the following can possibly be the reason?*

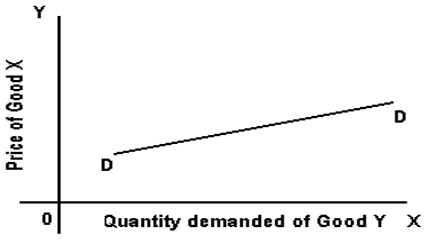
(a) *An increase in the price of cauliflower which is equally preferred by consumers*

(b) *Announcement of a subsidy by government on vegetable production*

(c) *More farmers producing cabbage and the increasing competition among them*

(d) *A substantial decrease in the price of capsicum*

108. *The following diagram shows the relationship between price of Good X and quantity demanded of Good Y. What we infer from the diagram is;*



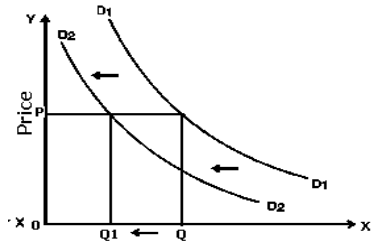
(a) *Good X and Good Y are perfect complements*

(b) *Good X and Good Y are perfect substitutes*

(c) *Good X and Good Y are remote substitutes*

(d) *Good X and Good Y are close substitutes*

109. *The diagram given below shows*



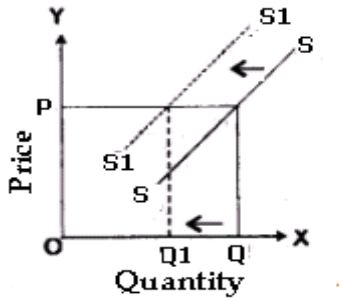
(a) *A change in demand which may be caused by a rise in income and the good is a normal good*

(b) *A shift of demand curve caused by a fall in the price of a complementary good*

(c) *A change in demand which is caused by a rise in income and the good is an inferior good*

(d) *A shift of demand curve caused by a rise in the price of a substitute and the good is a normal good.*

110. *Which of the following alternatives would be true if the event presented in the following diagram occurs?*



(a) *A fall in wage costs of the firm along with a fall in consumer incomes*

(b) *A shortage of raw materials and consequent increase in raw material price*

(c) *An increase in subsidy by the government and a reduction in taxes*

(d) *Decrease in the market price of the commodity in question*

111. *The demand curve of a normal good has shifted to the right. Which of the four events would have caused the shift?*

(a) *A fall in the price of a substitute with the price of the good unchanged*

(b) *A fall in the nominal income of the consumer and a fall in the price of the normal good*

(c) *A fall in the price of a complementary good with the price of the normal good unchanged*

(d) *A fall in the price of the normal good, other things remaining the same*

112. *If roller- coaster ride is a function of amusement park visit, then, if the price of amusement park entry falls*

(a) *The demand for roller- coaster rides will rise and the demand curve will shift to right*

(b) *The demand for roller coaster ride cannot be predicted as it depends on the tastes of consumers for the ride*

(c) *There will be an expansion in the demand for roller coaster drive as it complementary*

(d) *None of the above*

113. *If a short run supply curve is plotted for the following table which presents price and quantity of fighter aircrafts, what will be its shape?*

Price in millions of $	***Number of Aircrafts***
124	*28*
140	*28*
150	*28*
160	*28*
175	*28*

(a) *Horizontal straight line parallel to the quantity axis*

(b) *Steeply rising with elasticity less than one*

(c) *Vertical straight line parallel to Y axis*

(d) *A perfectly elastic supply curve*

114. *The average income of residents of two cities A and B and the corresponding change in demand for two goods is given in the following table. Which of the following statements is true?*

City	%Increase In Income	% change in demand for Good X	% change in demand for Good Y
A	12	6.5	- 2.3
B	9	5.6	1.6

(a) Both goods are normal goods in both cities A and B

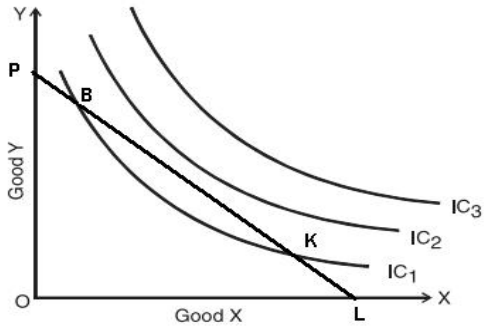
(b) Good X is a normal good in both cities; good Y is an inferior good in city A

(c) Good X is a normal good in both cities; good Y is an inferior good in city B

(d) Need more information to make an accurate comment

Refer to the figure below. Answer questions 115 and 116

115. *If this consumer is spending her entire income and consuming at point B, what advise will you give her?*



(a) No advise needed, as she is maximizing her utility at B

(b) Consume more of Good X and less of Good Y

(c) Consume more of X and less of Y and reach point K

(d) Consume same quantity of Good Y and more of Good X

116. *Which of the following statements is true about this consumer?*

(a) The consumer is not maximizing her utility at point K

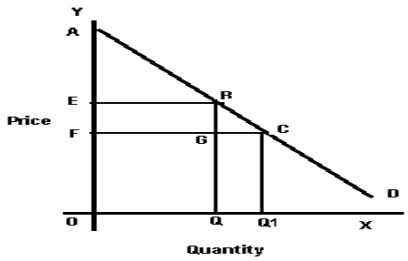
(b) The consumer is spending her entire income on both goods

(c) The consumer gets equal pleasure at points B and K

(d) All the above

Refer to the figure below. Answer questions 117 and 118

117. The effect on consumer surplus of a fall in price from E to F is



(a) A decrease in consumer surplus by EFGR

(b) A decrease in consumer surplus by AER

(c) A decrease in consumer surplus by EFCR

(d) None of the above

118. When price rises from F to E, the increase in revenue earned by the seller is

(a) Equivalent to area EFGR

(b) Equivalent to area EFCR

(c) Equivalent to area AER

(d) None of the above

119. How would that budget line be affected if the price of both goods fell?

(a) The budget line would not shift.

(b) The new budget line must be parallel to the old budget line.

(c) The budget line must be shifting to the left

(d) The new budget line will have the same slope as the original so long as the prices of both goods change in the same proportion.

120. During a recession, economies experience increased unemployment and a reduced level of income. How would a recession likely to affect the market demand for new cars?

(a) Demand curve will shift to the right.

(b) Demand curve will shift to the left.

(c) Demand will not shift, but the quantity of cars sold per month will decrease.

(d) Demand will not shift, but the quantity of cars sold per month will increase.

ANSWERS

1.	**(d)**	2.	**(b)**	3.	**(c)**	4.	**(b)**	5.	**(b)**	6.	**(b)**
7.	**(b)**	8.	**(c)**	9.	**(c)**	10.	**(b)**	11.	**(b)**	12.	**(b)**
13.	**(b)**	14.	**(c)**	15.	**(d)**	16.	**(c)**	17.	**(a)**	18.	**(b)**
19.	**(d)**	20.	**(d)**	21.	**(c)**	22.	**(b)**	23.	**(c)**	24.	**(c)**
25.	**(d)**	26.	**(b)**	27.	**(a)**	28.	**(c)**	29.	**(b)**	30.	**(a)**
31.	**(b)**	32.	**(c)**	33.	**(b)**	34.	**(a)**	35.	**(c)**	36.	**(a)**
37.	**(a)**	38.	**(c)**	39.	**(c)**	40.	**(a)**	41.	**(d)**	42.	**(c)**
43.	**(a)**	44.	**(c)**	45.	**(a)**	46.	**(d)**	47.	**(d)**	48.	**(b)**
49.	**(b)**	50.	**(b)**	51.	**(d)**	52.	**(c)**	53.	**(b)**	54.	**(d)**
55.	**(b)**	56.	**(b)**	57.	**(c)**	58.	**(b)**	59.	**(b)**	60.	**(c)**
61.	**(c)**	62.	**(b)**	63.	**(a)**	64.	**(a)**	65.	**(d)**	66.	**(d)**
67.	**(a)**	68.	**(c)**	69.	**(a)**	70.	**(b)**	71.	**(c)**	72.	**(c)**
73.	**(b)**	74.	**(a)**	75.	**(c)**	76.	**(a)**	77.	**(c)**	78.	**(a)**
79.	**(c)**	80.	**(b)**	81.	**(a)**	82.	**(a)**	83.	**(a)**	84.	**(c)**
85.	**(a)**	86.	**(a)**	87.	**(c)**	88.	**(a)**	89.	**(d)**	90.	**(b)**
91.	**(d)**	92.	**(a)**	93.	**(a)**	94.	**(a)**	95.	**(d)**	96	**(a)**
97.	**(d)**	98.	**(a)**	99.	**(d)**	100.	**(c)**	101	**(a)**	102	**(c)**
103.	**(c)**	104	**(b)**	105	**(c)**	106.	**(b)**	107	**(a)**	108.	**(d)**
109	**(c)**	110	**(b)**	111	**(c)**	112	**(a)**	113	**(c)**	114	**(b)**
115	**(b)**	116	**(d)**	117	**(d)**	118	**(a)**	119	**(d)**	120	**(b)**