Forms of Market and Price Determination

PART 1

Objective Questions

• Multiple Choice Questions

1. In perfect competition, as the firm is a price taker, the ...... curve is a horizontal straight line.
(a) marginal cost
(b) total cost
(c) total revenue
(d) marginal revenue

Ans. (d) marginal revenue

2. Which of the following is not an essential condition of pure competition?
(a) Large number of buyers and sellers
(b) Homogeneous product
(c) Freedom of entry and exit
(d) Absence of transport cost

Ans. (d) Absence of transportation cost is a feature/assumption of perfect competition and not pure competition.

3. An increase in supply with demand remaining the same bring about ....
(a) an increase in equilibrium quantity and decrease in equilibrium price
(b) an increase in equilibrium price and decrease in equilibrium quantity
(c) decrease in both equilibrium price and quantity
(d) None of the above

Ans. (a) an increase in equilibrium quantity and decrease in equilibrium price

4. An increase in demand with unchanged supply leads to ....
(a) rise in equilibrium price and fall in equilibrium quantity
(b) fall in both equilibrium price and quantity
(c) rise in both equilibrium price and quantity
(d) fall in equilibrium price and rise in equilibrium quantity

Ans. (c) rise in both equilibrium price and quantity

5. If price is forced to stay below equilibrium price...... .
(a) excess supply exists (b) excess demand exists
(c) Either (a) or (b) (d) Neither (a) nor (b)

Ans. (b) When the market price is fixed below the equilibrium price, it is known as price flooring. Price floor leads to excess demand as there are less suppliers who are willing to supply at the existing price.

6. Equilibrium price may be determined through ....
(a) only demand
(b) only supply
(c) Both demand and supply
(d) None of the above

Ans. (c) Both demand and supply

7. ...... is a situation of the market in which demand for a commodity is exactly equal to its supply corresponding to a particular price.
(a) Consumer equilibrium (b) Producer equilibrium
(c) Market equilibrium (d) Balance of trade

Ans. (c) Market equilibrium

8. If the market supply is less than the market demand of a commodity at a given price, it is called
(a) Excess supply (b) Excess demand
(c) Deficit demand (d) Market supply

Ans. (b) Excess demand

9. If there is shortage of certain goods, the government introduces ...... for distribution of commodity to consumers.
(a) planning (b) marketing
(c) rationing (d) financing

Ans. (c) rationing

10. Nature of goods under pure competition is ....
(a) homogeneous (b) heterogeneous
(c) both (a) and (b) (d) neither (a) nor (b)

Ans. (a) homogeneous

11. Choose the correct statement from given below
(a) If a firm charge lower price under perfect competition, it faces losses.
(b) If a firm charge higher price under perfect competition, it faces losses.

(c) Individual firms under perfect competition, sell insignificant proportion in the market.
(d) All of the above

Ans. (d) All of the above

12. What is the implication of perfect knowledge under perfect competition?
(a) Losses in long-run
(b) No seller can charge a different price than market price
(c) Both (a) and (b)
(d) Neither (a) nor (b)

Ans. (b) No seller can charge a different price than market price

13. Which of the following is the closest example of perfect competition in Indian market?
(a) Aircraft industry
(b) Manufacturing
(c) Agriculture
(d) None of these

Ans. (c) Agriculture

14. **Statement I** When demand and supply changes in the same direction, equilibrium quantity always remains constant.

Statement II If demand is perfectly elastic, there will be no impact of change in supply on the equilibrium price.

Alternatives
(a) Statement I is correct and Statement II is incorrect
(b) Statement II is correct and Statement I is incorrect
(c) Both the statements are correct
(d) Both the statements are incorrect

Ans. (b) Statement II is correct and Statement I is incorrect

15. Choose the correct pair.

	Column I		Column II
A.	No Possible Market Equilibrium	(i)	Viable Industry
B.	Equilibrium with Equality of Market Forces	(ii)	Non-viable Industry
C.	Price Ceiling	(iii)	Black Marketing
D.	Price Flooring	(iv)	Rationing

Codes
(a) A–(i)
(b) B–(ii)
(c) C–(iii)
(d) D–(iv)

Ans. (c) C–(iii)

• Assertion-Reasoning MCQs

Direction *(Q. Nos. 1 to 4) There are two statements marked as Assertion (A) and Reason (R). Read the statements and choose the appropriate option from the options given below*

(a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A)
(b) Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of Assertion (A)
(c) Assertion (A) is true, but Reason (R) is false
(d) Both Assertion (A) and Reason (R) are false

1. **Assertion** (A) Industry is a price maker under perfectly competitive market.

Reason (R) Individual firms are too small according to the market size that they sell at the given price.

Ans. (a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A)

2. **Assertion** (A) Market based economies are more efficient as they work as the basis of free play of demand and supply.

Reason (R) Invisible hands of demand and supply automatically adjusts the market towards equilibrium.

Ans. (a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A)

3. **Assertion** (A) Price ceiling is a direct government action of fixing the market price above equilibrium price.

Reason (R) In non-viable industries, government intervenes to resort market as equilibrium price cannot be determined by market forces of demand and supply.

Ans. (d) Price ceiling is the direct action of the government to set the market price below equilibrium price. No equilibrium is possible in case of non-viable industries.

4. **Assertion** (A) Controlled price mechanism system prevails in socialistic an communist countries where the government has exclusive rights on production, distribution and consumption.

Reason (R) The central authority has to decide upon the various commodities which the economy should product with the available resources when market mechanism fails to give desirable result.

Ans. (a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A)

• Case Based MCQs

1. **Direction** *Read the following text and answer the question no. (i) to (vi) on the basis of the same.*

Under perfect competition, there are a large number of sellers selling homogenous product. Each seller sells quite an insignificant portion of total market supply that none of them can influence the price in the market. Both buyers and sellers do not have any trade union or association.

The price of the commodity under perfect competition is determined by the forces of demand and supply of the product. Every seller accepts the price as determined by the market. No individual firm can influence this price. It has to decide how much quantity of the commodity it wants to sell. It is because of this, that the seller under perfect competition is a price taker.

(i) Under which form of market, a firm sells homogeneous goods?
(a) Perfect competition
(b) Monopoly
(c) Monopolistic competition
(d) Both (a) and (b)

Ans. (a) Perfect competition

(ii) Average revenue curve under perfect competition is perfectly elastic due to …………… .
(a) large number of sellers
(b) homogeneous goods
(c) freedom of entry andexit
(d) All of the above

Ans. (a) large number of sellers

(iii) A perfectly competitive firm can earn only normal profits in long-run due to ………… .
(a) large number of sellers (b) homogenous goods
(c) freedom of entry and exit (d) All of these

Ans. (c) freedom of entry and exit

(iv) What will happen to an individual seller if he decides to charge a lower price than the market?
(a) Earn higher profits
(b) Suffer losses
(c) Earn super normal profit in long-run
(d) Either (a) or (b)

Ans. (b) A seller is very small according to the market. So, if an individual seller charges a lower price, he will suffer loss as it can't serve the entire market.

(v) **Assertion** (A) A firm under perfect competition will suffer loss if it charges a price lower than the market price.

Reason (R) Individual firms under perfectly competitive market sells very insignificant proportion and thus cannot serve the entire market.

Alternatives
(a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A)
(b) Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of Assertion (A)
(c) Assertion (A) is true, but Reason (R) is false
(d) Both Assertion (A) and Reason (R) are false

Ans. (a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A)

(vi) Firms under perfect competition earns normal profit in long-run, which of the following conditions gets satisfied in long-run?
(a) TR=TVC (b) AR=TVC
(c) AR=AC (d) TR=AC

Ans. (c) Normal profit is the situation where revenue and cost becomes equal thus, equality of AR and AC indicates the same point.

2. **Direction** *Read the following text and answer the question no. (i) to (vi) on the basis of the same.*

As one example of demand and supply analysis, let us assume we have a product in which government has imposed an additional tax of ₹ 1.00 per unit. The tax is charged to the seller. For every ₹ 1 of sales, assume that the seller must pay ₹ 0.07 to the government. (Notice that consumers do not pay sales taxes. You have not paid any sales tax money to any government agency. The store pays the sales tax to the government.)

From the point of view of the seller, this is an additional cost of production. In addition to all other costs, the seller must also pay the sales tax.

(i) What will be the impact of increase on tax?
(a) Demand will decrease (b) Supply will decrease
(c) Both demand and supply will decrease
(d) Supply will remain constant

Ans. (b) Increase in taxes leads to increase in cost of production that further leads to fall in supply of the commodity.

(ii) How will this tax impact the market price of the good concerned?
(a) Market price will increase
(b) Market price will remain constant
(c) Market price will decrease
(d) None of the above

Ans. (a) Due to imposition of tax, the market price of the commodity rises above the equilibrium price.

(iii) How will the tax impact demand and supply curves?
(a) Demand curve will shift to left, supply curve will shift to left
(b) Demand curve will shift to left, supply curve will shift to right
(c) Demand curve will remain unchanged, supply curve will shift to left
(d) Supply curve will remain unchanged, demand curve will shift to left

Ans. (c) Increase in taxes leads to fall in supply thus, supply curve shifts leftwards.

(iv) What will be the impact of above change on equilibrium quantity, if demand is perfectly inelastic?
(a) Increase (b) Decrease
(c) Remain constant
(d) Either increase or decrease

Ans. (c) When demand is perfectly inelastic, it has no impact on the quantity thus, equilibrium quantity remains unchanged.

(v) **Assertion** (A) Tax imposed by the government increases the market price above equilibrium price.

Reason (R) Imposition of tax leads to the situation of dis-equilibrium in the market of the good.

(a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A)
(b) Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of Assertion (A)
(c) Assertion (A) is true, but Reason (R) is false
(d) Both Assertion (A) and Reason (R) are false

Ans. (b) Imposition of tax leads to increase in cost of production of the producers, keeping the equilibrium price constant, it decreases the profit of the producers and fall in supply.

(vi) In the above situation, assume that the government offers a subsidy to the economically weaker section of the society. What is the likely impact on the equilibrium position due the following step?

(a) Equilibrium price will fall
(b) Equilibrium demand will increase
(c) It will lead to disequilibrium in the market
(d) None of the above

Ans. (c) Both tax and subsidy leads to dis-equilibrium as it impacts free play of market forces of demand and supply.

PART 2
Subjective Questions

• Short Answer (SA) Type Questions

1. Explain the implications of 'perfect knowledge about market 'under perfect competition.

Ans. Perfect knowledge means that both buyers and sellers are fully informed about the market price. Therefore, no firm is in a position to charge a different price and no buyer will pay a higher price. As a result, a uniform price prevails in the market. In case of perfect competition, buyers and sellers have perfect knowledge of the market.

2. Why can a firm not earn abnormal profits under perfect competition in the long-run? Explain.

Ans. There is freedom of entry and exit of firms under perfect competition. In situations of abnormal profits, new firms will be induced to join the industry. This increases market supply and lowers market price to finally wipe out abnormal profits. So, a firm cannot earn abnormal profits under perfect competition in the long-run.

3. Explain the implications of freedom of entry and exit of the firms under perfect competition.

Ans. A firm can enter or leave the industry any time. Because of free entry and exit, firms in the long-run can earn only normal profits (TR = TC or AR = AC). In case extra normal profits are earned in the short-run, new firms will join the industry.
Market supply will increase and market price will fall. Extra profits will be wiped out. In case of extra normal losses or abnormal losses, some of the existing firms will leave the industry. Market supply will decrease. Hence, market price will increase and extra normal losses will be wiped out. So, we can say that firms under perfect competition can earn only normal profits in the long-run.

4. Explain the conditions of perfect competition. Why is the demand curve facing a firm under perfect competition is perfectly elastic?

Ans. The main conditions of perfect competition are

(i) Large number of buyers and sellers
(ii) Homogeneous product
(iii) Perfect knowledge
(iv) Perfect mobility of factors of production
(v) Free exit and entry of the firms
(vi) No transport cost

When goods are purchased across different buyers, demand curve of a firm is perfectly elastic ($\mathbf{E_d} = \infty$) because even the slightest change in price will cause an infinite change in demand. Because of this feature, it is also referred to be an imaginary market form.

5. Explain, how in the long-run, equilibrium with free entry and exit, firms under perfect competition earn zero abnormal profits.

Ans. A perfectly competitive firm in the long-run can earn normal profits only. In case an industry is showing supernormal profits (TR>TC or AR>AC) in short-run, new firms will join the industry leading to increase in supply and will shift market supply curve to the right. Accordingly market price will be reduced and supernormal profits will be wiped out.
In case of negative abnormal profits (losses) in the short-run when (TR<TC or AR <AC) some of the existing firms will leave the industry. Accordingly, supply will fall and market supply curve will shift to the left forcing the price to move up till the situation of zero normal profit is reached.

6. "Is a firm under perfect competition a price taker, or a price maker?" Justify your answer.

Ans. A firm under perfect competition is a price taker because of the following reasons

(i) A firm under perfect competition is contributing such a small fragment to the market supply that total supply schedule remains unaffected by any change in individual firm's supply.

(ii) All firms are selling homogeneous product. Accordingly, even partial control over price is not possible.

(iii) If any firm tries to fix its own price, it won't succeed. Higher price would drive the buyers to a large number of other sellers. Lower price would bring so many buyers to a firm that it cannot cope with the demand.

7. Explain the changes that will take place when in a market, the demand for a good is greater than supply at the prevailing price.

Ans. If at a prevailing price, quantity demanded is more than quantity supplied, then supplier will be motivated 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.

8. In the case of luxury items like diamond, decrease in demand decreases equilibrium price. Do you agree?

Ans. No, this is not correct. The price of luxury items like diamond does not fall even if there is a decrease in demand. These items indicate social status of rich class due to which the price remains high, irrespective of change in demand.

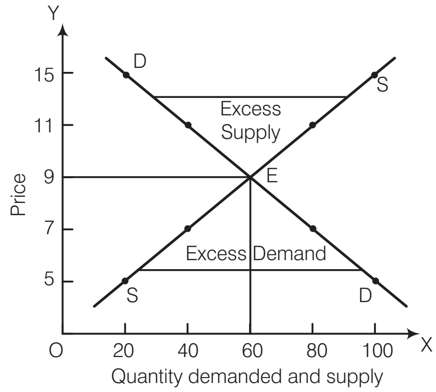
9. Discuss the effects of simultaneous increase in demand and supply on equilibrium price.

Ans. (i) When demand increases more than supply, equilibrium price increases.

(ii) When demand and supply increase equally, equilibrium price remains constant.

(iii) When supply increases more than demand, equilibrium price falls.

10. Suppose the price at which equilibrium is attained in the figure given below is above the minimum average cost of the firms constituting the market. Now, if we allow for free entry and exit of firms, how will the market price adjust to it? **(NCERT)**



Ans. The equilibrium price is ₹ 9 in the above figure which is above the minimum of average cost. It implies that firm is earning supernormal profit. This situation attracts new firms, the industry supply of output also increases. New firms will continue to enter the industry which leads the price to fall until it becomes equal to minimum average cost.At this stage firms starts earning normal profit.

11. Increase in demand often causes a rise in price, but it is not always true. Explain.

Ans. Other things being equal, the increase in demand for a commodity should cause increase in price. But if other things are not equal, then this relationship may not hold true. e.g. if there is an equal increase in supply, the price may not increase. In fact, if the increase in supply is more than increase in demand, the price may fall.

12. How decisions are taken by the consumer and producer in a coordinated market?

Ans. The decisions of the consumers in the market are expressed through market demand schedule and market demand curve. The decisions of the producers are expressed through market supply schedule and market supply curve.

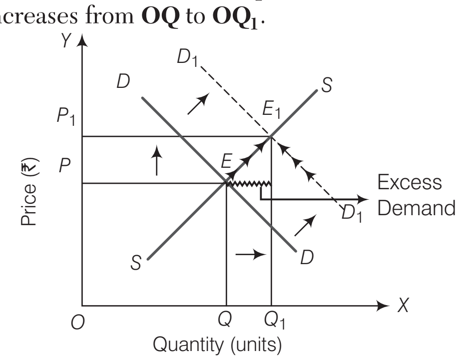
The decisions of consumers and producers are coordinated by the interaction of market demand and market supply. This is known as price mechanism, which determines equilibrium in the market.

13. Market for a good is in equilibrium. There is an increase in demand for this good. Explain the chain of effects of this change.

Or

By the given equilibrium in the market, explain the chain of effects of increase of demand for a good.

Ans. Equilibrium refers to the situation in which market demand is equal to market supply. The given diagram shows a situation of increase in demand. The demand curve shifts to the right from **DD** to **D_1D_1**. Equilibrium point shifts from **E** to **E_1**. Consequently, equilibrium price rises from **OP** to **OP_1** and equilibrium quantity increases from **OQ** to **OQ_1**.

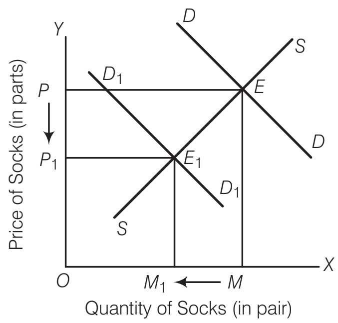


14. Explain why the equilibrium price of a commodity is determined at that level of output at which its demand equals its supply.

Ans. Equilibrium is a point when at a given price, quantity demanded is equal to quantity supplied and 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. In either case, there will be movement in price and hence quantities, i.e. these are not stable points. Only at equilibrium price, the quantity demanded is equal to quantity supplied and there is no tendency to change from this point.

15. Using supply and demand curves, show how an increase in the price of shoes affects the price of a pair of socks and the number of pairs of socks bought and sold. **(NCERT)**

Ans. Shoes and socks are complementary goods. An increase in the price of shoes will cause a decrease in demand of socks. It will lead to excess supply. This leads to competition among sellers, which reduces the price. Fall in price leads to decrease in supply and rise in demand. These changes continue till supply and demand become equal at a new equilibrium price. As a result there is a decrease in demand of both shoes and socks.



• Long Answer (LA) Type Questions

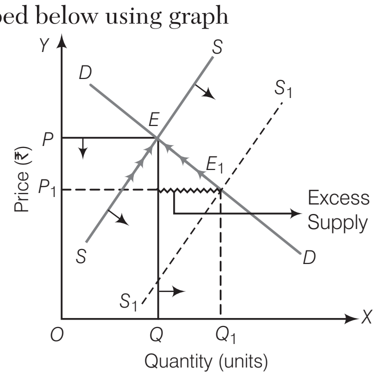
1. Equilibrium price of an essential medicine is too high. Explain what possible steps can be taken to bring down the equilibrium price, but only through the market forces. Also explain the series of changes that will occur in the market.

Ans. If the equilibrium price of an essential medicine is too high, then its price can be reduced by opting two ways

(i) Increase the supply of the commodity.

(ii) Government should provide such essential medicines on subsidised rates.

But as per the question, option (i) would be most appropriate. Changes that will occur in the market are described below using graph



In the given figure, it is clearly depicted that due to increase in supply, the supply curve shifts to the right from *SS* to $\mathbf{S_1S_1}$. The new supply curve $\mathbf{S_1S_1}$ intersects the demand curve at point $\mathbf{E_1}$. The equilibrium price decreases from *OP* to $O\mathbf{P_1}$ and quantity increases from *OQ* to $O\mathbf{Q_1}$.

Thus, it is clear that by increasing the supply of the medicines, its equilibrium price can be brought down as by doing so, competition will be increased among the producers and consequently, they would be forced to sell their output at lower cost.

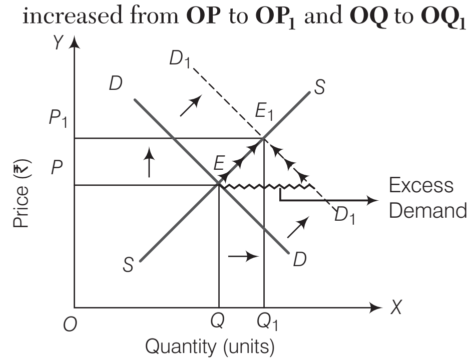
2. (i) Explain the effect of increase in income of buyers of normal commodity on its equilibrium price.

(ii) How does the equilibrium price of a normal commodity change when income of its buyers falls? Explain the chain of effects.

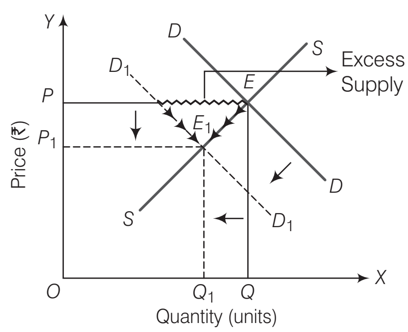
Ans. (i) For a normal commodity, increase in income of the consumers means increase in its demand. Accordingly, demand curve shifts rightward and both equilibrium price and equilibrium quantity tends to increase.

In the given diagram, actual demand curve *DD* and actual supply curve *SS* intersect at point **E** (i.e. equilibrium point). When income of the buyer increases, the demand for normal good also rises and demand curve shifts rightward from *DD* to $\mathbf{D_1D_1}$.

As a result, equilibrium price and quantity both are increased from **OP** to $\mathbf{OP_1}$ and **OQ** to $\mathbf{OQ_1}$.



(ii) For a normal commodity, decrease in income of the buyers means decrease in its demand. Accordingly, demand curve shifts leftward and both equilibrium price and equilibrium quantity tend to decrease.

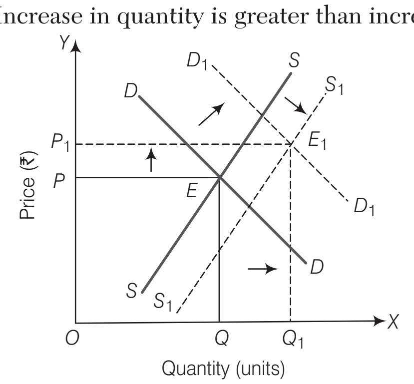


In the given diagram, actual demand curve *DD* and actual supply curve *SS* intersect at point **E** (i.e. equilibrium point). When income of the buyer decreases, the demand for normal good also falls and demand curve shifts leftward from **DD** to $\mathbf{D_1D_1}$. As a result, equilibrium price and quantity both are decreased from **OP** to $\mathbf{OP_1}$ and **OQ** to $\mathbf{OQ_1}$.

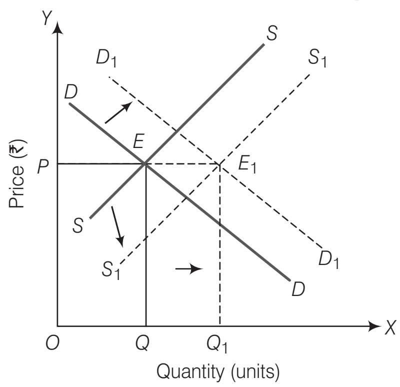
3. Market for a good is in equilibrium. There is simultaneous increase in both demand and supply of the good. Explain its effect on market price.

Ans. There can be three situations in this respect which are as follows

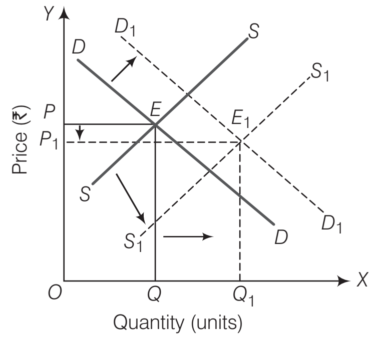
(i) **Increase in Demand is Greater than Increase in Supply** From the given figure, it is clear that the rightward shift in demand curve from *DD* to $\mathbf{D_1D_1}$ is proportionately more than the rightward shift in supply curve from *SS* to S_1S_1. The new equilibrium point is $\mathbf{E_1}$. Equilibrium price rises from **OP** to $\mathbf{OP_1}$ and equilibrium quantity rises from *OQ* to $\mathbf{OQ_1}$. Increase in quantity is greater than increase in price.



(ii) **Increase in Demand is Exactly Equal to Increase in Supply** From the given figure, it is clear that the rightward shift in demand curve from *DD* to $\mathbf{D_1D_1}$ is proportionately equal to the rightward shift in supply curve from *SS* to $\mathbf{S_1S_1}$. The new equilibrium point is $\mathbf{E_1}$. Equilibrium price remains the same but equilibrium quantity rises from **OQ** to $\mathbf{OQ_1}$.



(iii) **Increase in Demand is Lesser than Increase in Supply** From the given figure, it is clear that rightward shift in demand curve from *DD* to $\mathbf{D_1D_1}$ is proportionately less than the rightward shift in supply curve from *SS* to $\mathbf{S_1S_1}$. The new equilibrium point is $\mathbf{E_1}$. Equilibrium price falls from *OP* to $\mathbf{OP_1}$ and equilibrium quantity rises from *OQ* to $\mathbf{OQ_1}$. Increase in quantity is greater than decrease in price.

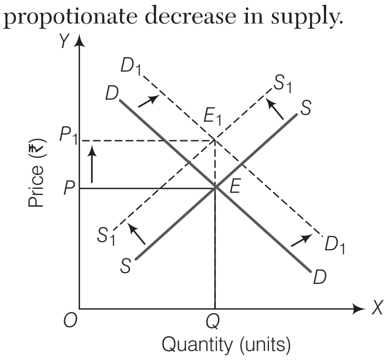


4. (i) Suppose the demand for jeans increases. At the same time, because of an increase in the price of cotton, the supply of jeans decreases. How will it affect the price and quantity sold of jeans?

(ii) Explain and illustrate with the help of a diagram, the effect of change in supply on the equilibrium price of a commodity.

Ans. (i) Increase in market demand for jeans along with the decrease in supply of jeans should raise the price of jeans and the quantity sold will decline.

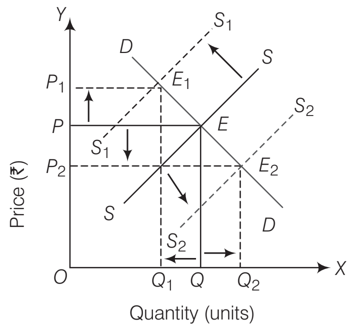
In the given figure, when demand increases to $\mathbf{D_1D_1}$ and supply decreases to $\mathbf{S_1S_1}$, price increases from **OP** to $\mathbf{OP_1}$ and but quantity remains the same at **OQ**. Becuase the propotionate increase in demand equals propotionate decrease in supply.



Increase in demand is equal to decrease in supply

(ii) Demand remaining constant, increase in supply means fall in equilibrium price and decrease in supply means increase in equilibrium price.

There is inverse relationship between equilibrium price and change in supply as shown in the given figure.

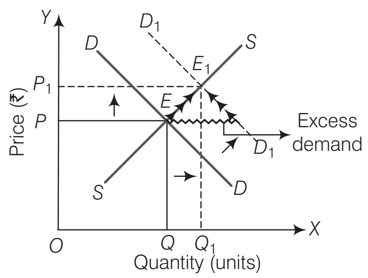


DD is initial demand curve, SS is initial supply curve, OP is initial equilibrium price, **OQ** is initial equilibrium quantity. Due to increase in supply, supply curve shifts to the right shown by $\mathbf{S_2S_2}$ and equilibrium price falls to $\mathbf{OP_2}$. With a fall in supply, shown by $\mathbf{S_1S_1}$ equilibrium price rises to $\mathbf{OP_1}$.

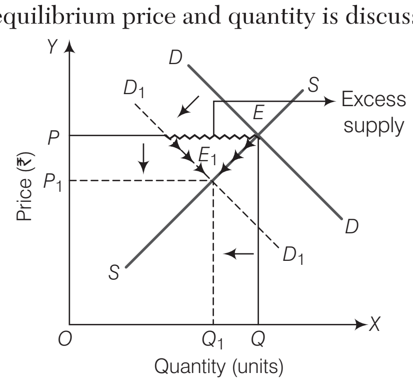
5. (i) X and Y are complementary goods. Explain the sequence of effects of a fall in the price of X on the equilibrium price and quantity of Y.

(ii) With the help of a diagram, explain the effect of decrease in demand of a commodity on its equilibrium price and quantity.

Ans. (i) In case of complementary goods, when the price of X falls, demand for commodity Y increases. As a result, demand curve of commodity Y will shift towards right but supply curve remains constant. Due to increase in demand of commodity Y, there will be excess demand. Therefore, supplier will be motivated to increase the price of commodity Y. The equilibrium price and quantity would tend to increase.



(ii) Effect of decrease in demand of a commodity on equilibrium price and quantity is discussed below



In the given figure, DD and SS are the initial demand curve and supply curve respectively. E is the initial equilibrium point, OQ is the equilibrium quantity and OP is the equilibrium price. Decrease in demand implies a shift in demand curve to the left. It is indicated by $\mathbf{D_1D_1}$. This sets in the following chain of effects. Decrease in demand implies that less is demanded at the existing price. Given the supply, price of the commodity will tend to decrease from OP to $\mathbf{OP_1}$. Fall in price will cause extension of demand and contraction of supply. Here, equilibrium quantity also decreases from **OQ** to $\mathbf{OQ_1}$.

6. Consider the following demand and supply functions for a good

Quantity demanded = 160 – 2p

Quantity supplied = – 40 + 2p

(i) Calculate the equilibrium price and quantity.

(ii) Find out a price at which there is excess demand.

(iii) Find out a price at which there is excess supply.

Ans. (i) Quantity Demanded $= 160 - 2p$

Quantity Supplied $= -40 + 2p$

Equilibrium is attained at a point where market demand is equal to market supply, i.e.

Quantity Demanded = Quantity Supplied

Hence, $160 - 2p = -40 + 2p$

$160 + 40 = 2p + 2p$

$200 = 4p,\ p = \frac{\mathbf{200}}{\mathbf{4}} = \mathbf{50}$

Hence, equilibrium price = ₹ **50**

Equilibrium quantity will be,

Quantity Demanded = Quantity Supplied

$= 160 - 2p = 160 - 2 \times \mathbf{50}$

$= 160 - 100 =$ ₹ **60**

(ii) At any price below the equilibrium price there will be excess demand. Let us take at price ₹ **20**

At **p = ₹ 20**

Quantity Demanded $= 160 - 2p$

$= 160 - 2 \times \mathbf{20} = 160 - 40 =$ ₹ **120**

Quantity Supplied $= -40 + 2p$

$= -40 + 2 \times 20 = -40 + 40 = 0$

Quantity Demanded > Quantity Supplied (excess demand)

Also it can be concluded that at ₹ 20 there will be no supply of the commodity, hence between $20 < p < 50$, there will be excess demand.

(iii) At any price above equilibrium, there will be excess supply. Let us take at price ₹ **80**

Quantity Demanded $= 160 - 2p$

$= 160 - 2 \times \mathbf{80} = 160 - 160 = 0$

Quantity Supplied $= -40 + 2p$

$= -40 + 2 \times 80 = -40 + 160 = 120$

Quantity demanded < Quantity supplied (excess supply). Also, it can be concluded that at $p =$ ₹ 80, demand will be zero, hence there will be excess supply between $50 < p < 80$.

Chapter Test

Mulitple Choice Questions

1. Under what condition, equilibrium price will increase and equilibrium quantity will decrease?
(a) Increase in supply
(b) Decrease in supply
(c) Increase in demand
(d) Decrease in demand

2. If in an industry, demand and supply will not intersect in positive quadrant, then it is called
(a) Illegal industry
(b) Viable industry
(c) Non-viable industry
(d) Sick industry

3. What is the impact of change in supply on market equilibrium when demand is perfectly inelastic?
(a) Both equilibrium price and equilibrium quantity will change
(b) Both equilibrium price and equilibrium quantity will not change
(c) Equilibrium price remains same and equilibrium quantity will change
(d) Equilibrium price will change and equilibrium quantity remains same

4. Which of the following is not an assumption of perfect competition?
(a) Perfect mobility of factors (b) Asymmetric information
(c) Huge selling cost (d) All of these

5. Elasticity of demand of average revenue curve under perfect competition is ....
(a) elastic (b) perfectly elastic
(c) inelastic (d) perfectly inelastic

Short Answer (SA) Type Questions

1. Under perfect competition, firms can sell any quantity at the existing price, then why firms are reluctant to reduce the price in order to capture the entire market?

2. Explain 'large number of buyers and sellers' as a feature of perfectly competitive market.

3. Show the determination of equilibrium price with the help of schedule.

4. Why price remains unaffected when supply curve is perfectly elastic and demand curve shifts?

5. How is the wage rate determined in a perfectly competitive labour market?

Long Answer (LA) Type Questions

1. How is price determined under perfect competition? Explain briefly.

2. Market for a good is in equilibrium. There is simultaneous decrease in both demand and supply of the good. Explain its effect on market price.

Answers

Multiple Choice Questions

1. (b) 2. (c) 3. (d) 4. (c) 5. (b)