I Choose the correct answer(1 marks questions)

1. In perfect competition buyers and sellers are

a) Price makers c) Price analysts

b) Price takers d) None of the above

Ans: (b) Price takers.

2. A situation where the plans of all consumers and firm in the market match.

a) Inequilibrium situation c) Maximisation situation

b) Equilibrium situation d) Partial Equilibrium situation

Ans: (b) Equilibrium situation

3. As a result of increase in the number of firms there is an increase in supply, then supply curve

a) Shifts towards left c) Shifts towards both sides

b) Shifts towards right d) None of the above

Ans: (b) Shifts towards right

4. The firms earn super normal profit as long as the price is greater than the minimum of

a) Marginal cost c) Average cost

b) Total cost d) Fixed cost

Ans: c) Average cost

5. The government imposing upper limit on the price of goods and services is called

a) Price ceiling c) Price floor

b) Selling price d) None of the above

Ans: (a) Price ceiling

6. The government imposed lower limit on the price of goods and service is called

a) Goods floor c) Price floor

b) Service floor d) None of the above

Ans: c) Price floor

II .Fill in the blanks (1 mark questions)

1. In a perfectly competitive market, equilibrium occurs when market demand ………..market supply

Ans: Equals

2. If the supply curve shifts rightward and demand curve shifts leftward equilibrium price will be………………..

Ans: Decreasing

3. ……………is determined at the point where the demand for labour and supply of labour curves intersect.

Ans: Wage

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4. In labour market……………….are the suppliers of labour.

Ans: Households

5. Due to rightward shifts in both demand and supply curves the equilibrium price remains…………..

Ans: Unchanged (constant or same).

6. It is assumed that, in a perfectly competitive market an ……………………is at play.

Ans: Invisible hand

III Match the following

A	B
1. Adam smith	a) Attraction of new firms
2. Price ceiling	b) Operation of invisible hand
3. Market equilibrium	c) Lower limit on price
4. Possibility of supernormal profit	d) Upper limit on price
5. Price floor	e) QD

Ans: 1 – (b); 2 – (d); 3 – (e); 4 – (a); 5 – (c);

IV Answer the following questions (1 mark questions)

1. Define market equilibrium.

Ans: A market equilibrium is a situation where the plans of all consumers and firms in the market match and the market clears. Here Quantity demanded is equal to Quantity supplied. It is a zero excess demand and zero excess supply situations.

2. What is equilibrium price?

Ans: The price at which equilibrium is reached is called equilibrium price.

3. When do we say that there is an excess demand in the market?

Ans: The excess demand exists in the market when the market demand exceeds the market supply.

4. What is price ceiling?

Ans: The Government imposed upper limit on the price of a good or service is called price ceiling. Example, price ceiling on necessary items like selected medicines, kerosene, wheat etc.

5. What is price floor?

Ans: The Government imposed lower limit on the price that may be charged for a particular good or service is called price floor. Example agricultural price support programmes and minimum wage legislation.

6. Through which legislation, the government ensures that the wage rate of the labourers does not fall below a particular level?

Ans: Minimum Wage Legislation (Minimum Wages Act)

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V Answer the following questions in 4 sentences (2 mark questions)

1. Define equilibrium price and quantity.

Ans: Equilibrium price is the price at which equilibrium is reached in the market.

The equilibrium quantity is defined as the quantity which is bought and sold at equilibrium price.

Therefore price and quantity will be at equilibrium when

Qd (p*) = qs (p*)

p* denotes the equilibrium price and Qd (p*) and qs (p*) denote the market dmenad and market supply respectively.

2. Write any two possible ways in which simultaneous shift of both demand and supply curve.

Ans: The simultaneous shifts can happen in four possible ways:

a) Both supply and demand curves shift rightwards.

b) Both supply and demand curves shift leftwards.

c) Supply curve shifts leftward and demand curve shifts rightward

d) Supply curve shifts rightward and demand curve shifts leftward.

3. What is marginal revenue product labour (MRPL)?

Ans: The extra output produced by one more unit of labour is its marginal product and by selling each extra unit of output, the additional learning of the firm is the marginal revenue she gets from that unit.

Therefore, for each extra unit of labour, she gets an additional benefit equal to marginal revenue times marginal product is called as Marginal Revenue Product of Labour (MRPL).

MRPL = MR x MPL

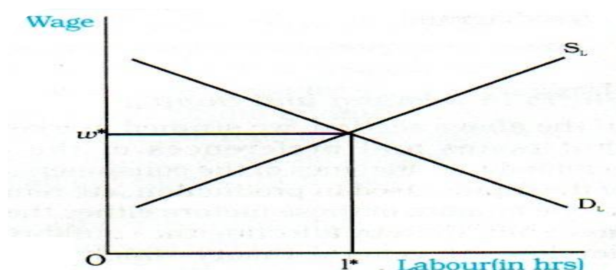
MR - Marginal Revenue; MPL- Marginal productivity of Labour.

4. Distinguish between excess demand and excess supply.

Excess Demand	Excess Supply
• It is situation where market demand exceeds the market supply. • Here the price of the product increases. • Qd > Qs	• It is a situation where the market supply exceeds the market demand. • Here the price of the product decreases. • Qs > Qd.

5. How wage is determined in the labour market?

Ans: The wage rate is determined at the point where the labour demand and supply curves intersect. This is shown in the following diagram:



In the above diagram, hours of labour is measured in X axis and Wage is measured in Y axis. SL is labour supply curve and DL Labour demand curve. With an upward sloping supply curve and downward sloping demand curve, the equilibrium wage rate is determined at the point where these two curves intersect (point E). That means, the wage rate is determined at that point where the labour that the households wish to supply is equal to the labour that the firms wish to hire

VI Answer the following questions in 12 sentences. (4 mark questions)

1. What is the implication of free entry and exit of firm on market equilibrium? Briefly explain.

Ans: In perfect competitive market, it is assumed that there will be free entry and exit of firms. This assumption implies that in equilibrium, no firm earns super normal profit or incurs loss by remaining in production. Here, the equilibrium price will be equal to the minimum average cost of the firms.

Let us discuss in detail why there will be no super normal profit or no loss to the firms.

Suppose, at the prevailing market price, each firm is earning super normal profit. The possibility of earning supernormal profit will attract some new firms. As new firms enter the market supply curve shifts rightward. However, demand remains same. This causes market price to fall. As prices decrease, super normal profits will eventually extinct. At this point, with all firms in the market earning normal profit.

Similarly, if the firms are incurring loss (less than normal profit) at the prevailing price, some firms will exit. This will lead to an increase in price. Then the profits of each firm will increase to the level of normal profit. At this point, no firm will want to leave since they will be earning normal profit.

Therefore, with free entry and exit, each firm will always earn normal profit at the prevailing market price.

2. Write a table to show the impact of simultaneous shifts on equilibrium.

Ans: The following table shows the impact of simultaneous shifts on equilibrium

Shift in Demand	Shift in Supply	Quantity	Price
Leftward	Leftward	Decreases	May increase, decrease or remain constant
Rightward	Rightward	Increases	May increase, decrease or remain constant
Leftward	Rightward	May increase, decrease or remain constant	Decreases
Rightward	Leftward	May increase, decrease or remain constant	Increases

3. Write a note on price ceiling.

Ans: "The government imposed upper limit on the price of a good or service is called price ceiling".
Price ceiling is generally imposed on necessary items like wheat rise, kerosene, sugar etc.
It is fixed below the market determined price because at the market determined price some section of the population will not be able to afford these goods.
Imposition of price ceiling gives rise to excess demand in the market for a good.
Let us examine the effects of price ceiling on market equilibrium through the example of market for wheat.

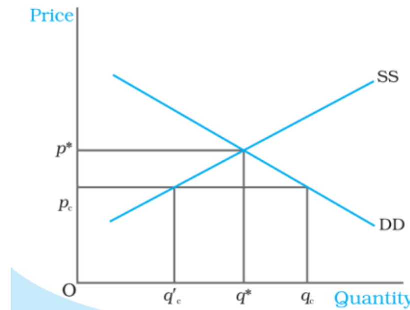


Figure shows the market supply curve SS and the market demand curve DD for wheat. The equilibrium price and quantity of wheat are p* and q* respectively.
When the government imposes price ceiling at pc which is lower than the equilibrium price level, there will be an excess demand for wheat in the market at that price. The consumers demand qc kg of wheat whereas the firms supply kg. Hence, though the intention of the government was to help the consumers, it could end up creating shortage of wheat. This is distributed through a system of rationing.
Adverse consequences on the consumers: (a) each consumer has to stand in long queues to buy the good from ration shops. (b) Since all consumers will not be satisfied by the quantity of the goods that they get from the fair price shop, some of them will be willing to pay higher price for it. This may result in the creation of black market.

4. Write a note on price floor.
Ans: "The government imposed lower limit on the price that may be charged for a particular good or service is called price floor".
➢ Most well known examples of imposition of price floor are agricultural price supportive programs and the minimum wage legislation.
(i) An agricultural price support program, the government imposes lower limit on the purchase for some agricultural goods and the floor is normally set above the market determined price.
In the case of agricultural support to prevent price from falling due to excess supply, government needs to but the surplus at a pre-determined price.
(ii) Through the minimum wage legislation, the government ensures that the wage rate of the labors does not fall below a particular level and here again the minimum wage rate is set above the equilibrium wage rate.
Let us examine the market supply and the market demand curve for a commodity on which price floor imposed.

The market equilibrium here would occur at price p* and quantity q*.
When the government imposes a floor higher than the equilibrium price at pf , the market demand is qf whereas the firms want to supply , thereby leading to an excess supply in the market equal to qf. In the case of agricultural support, to prevent price from falling because of excess supply, government needs to buy the surplus at the predetermined price.

VII Answer the following questions in 20 sentences (6 mark questions)

1. Explain the simultaneous shifts of demand and supply curve in perfect competition with the help of diagrams.

Ans: The simultaneous shifts can happen in four possible ways:

a) Both supply and demand curves shift rightwards.

b) Both supply and demand curves shift leftwards.

c) Supply curve shifts leftward and demand curve shifts rightward

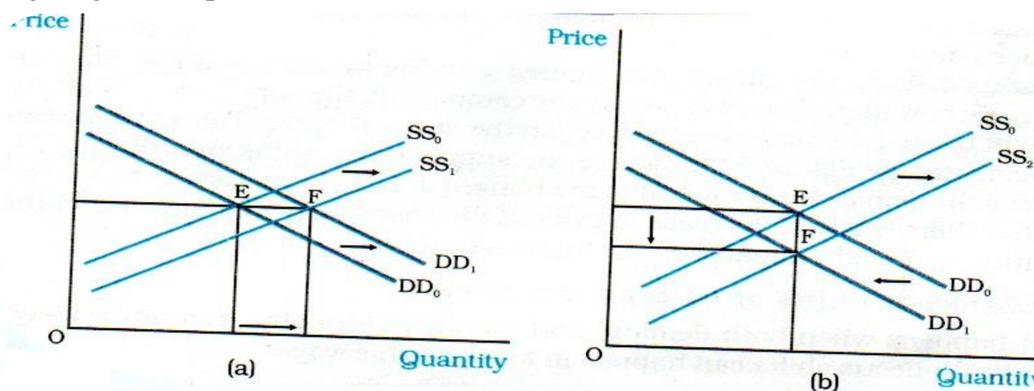
d) Supply curve shifts rightward and demand curve shifts leftward.

The simultaneous shifts of demand and supply curve in perfect competition can be represented in the following table:

Shift in Demand	Shift in Supply	Quantity	Price
Leftward	Leftward	Decreases	May increase, decrease or remain constant
Rightward	Rightward	Increases	May increase, decrease or remain constant
Leftward	Rightward	May increase, decrease or remain constant	Decreases
Rightward	Leftward	May increase, decrease or remain constant	Increases

In the above table, each row of the table describes the direction in which the equilibrium price and quantity will change for each possible combination of the simultaneous shifts in demand and supply curves. For instance, from the second row of the table, we can notice that due to a rightward shift in both demand and supply curves, the equilibrium quantity increases invariably but the equilibrium price may increase or decrease or remain constant.

The following diagrams depict the second and third cases of the above table:



In the above diagram (a) initially, the equilibrium is at E where the demand curve DD0 and supply curve SS0 intersect. Here, both supply and demand curves shift rightward where the price remains constant at P but the equilibrium quantity moves from q to q1.

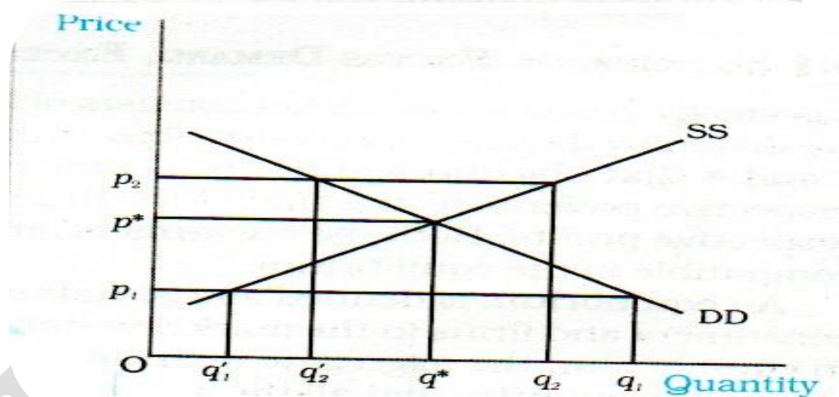
Similarly, in diagram (b), the supply curve shifts rightward and demand curve shifts leftward where the equilibrium quantity remains same but the equilibrium price decreases from P to P1.

Therefore, the rightward shifts in both demand and supply curves leads to increase in the equilibrium quantity and equilibrium price remaining constant. The equilibrium quantity remains same and the price decreases if there is leftward shift in demand curve and a rightward shift in supply curve.

2. Explain the market equilibrium with the fixed number of firms with the help of diagram.

Ans: Under perfect competition, market is said to be in equilibrium when quantity demanded is equal to the quantity supplied. Here, with the help of market demand curve and market supply curve we will determine where the market will be in equilibrium when the number of firms is fixed.

This can be illustrated with the help of the following diagram:



The above diagram illustrates equilibrium for a perfectly competitive market with a fixed number of firms. SS is market supply curve and DD is market demand curve. The market supply curve SS shows how much of the commodity firms would wish to supply at different prices and the demand curve DD tells us how much of the commodity, the consumer would be willing to purchase at different prices.

At point E, the market supply curve intersects the market demand curve which denotes that quantity demanded is equal to quantity supplied. At any other point, either there is excess supply or there is excess demand.

OP is the equilibrium price and Oq is the equilibrium quantity. If the price is P1, the market supply is q1 and market demand is q4. Therefore, there is excess demand in the market equal to q1q4. Some consumers who are either unable to obtain the commodity at all or obtain it in insufficient quantity will be willing to pay more than P1. The market price would tend to increase. All other things remaining constant, when the price increases the demand falls and quantity supplied rises. The market moves towards equilibrium where quantity demanded is equal to quantity supplied. It happens at P where supply decisions match demand decisions.

If the price is P2, the market supply- q3 will exceed the market demand q2 which leads to excess supply equal to q2q3. Some firms will not be able to sell quantity they want to sell. Therefore, they will lower their price. All other things remaining constant, when the price falls, quantity demanded rises and quantity

supplied falls to equilibrium price P where the firms are able to sell their desired output as market demand equals market supply at P. So, the P is the equilibrium price and the corresponding quantity q is the equilibrium quantity.

3. Suppose the demand and supply curves of wheat are given by

qD=200-P and qS=120+P

a) Find the equilibrium price

b) Find the equilibrium quantity of demand and supply

c) Find the quantity of demand and supply when P is greater than equilibrium price

d) Find the quantity of demand and supply when P is lesser than equilibrium price.

Solution :

a)At equilibrium price qD=qS

Then 200-P=120+P

200-120=P+P

80=2P

Therefore P= 80/2

equilibrium price is P=Rs 40

b) To find the equilibrium quantity of demand and supply substitute equilibrium price Rs 40 in both demand and supply equation.

qD=200-P qS =120+P

qD=200-40 qS =120+40

qD=160 qS =160

the equilibrium quantity of demand and supply is 160.

c) To find the equilibrium quantity of demand and supply when P is greater than equilibrium price

At price Rs=50

qD=200-P qS =120+P

qD=200-50 qS =120+50

qD=150 qS =170

When P is greater than equilibrium price the equilibrium quantity of demand is 150 and supply is 170. So demand is less than supply.

d) To find the equilibrium quantity of demand and supply when P is less than equilibrium price

At price Rs=30

qD=200-P qS =120+P

qD=200-30 qS =120+30

qD=170 qS =150

when P is greater than equilibrium price the equilibrium quantity of demand is 170 and supply is 150. So demand is greater than supply.

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