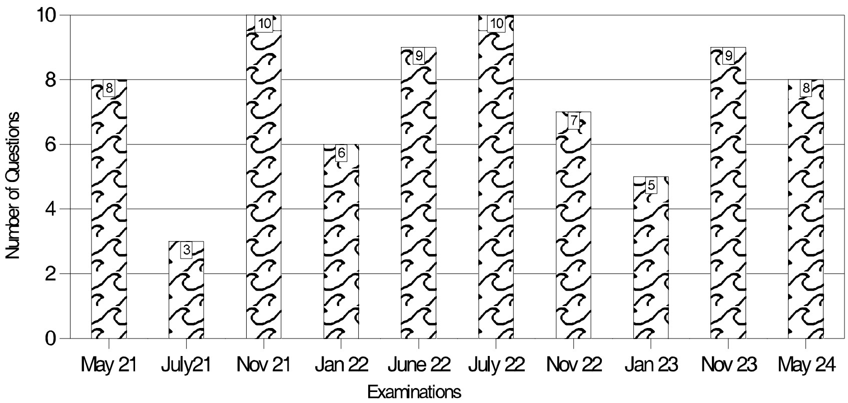
# 1 BASICS OF DEMAND AND SUPPLY AND FORMS OF MARKET COMPETITION

## THIS CHAPTER INCLUDES

1. Theory of Demand and Supply
2. Exceptions to the Law of Demand
3. Elasticity of Demand
4. Increase and Decrease in Demand and Expansion and Contraction of Demand
5. Forms of Market Competition
6. Elasticity of Supply



# CHAPTER AT A GLANCE

| 1.1 | Theory of Demand and Supply |
|---|---|

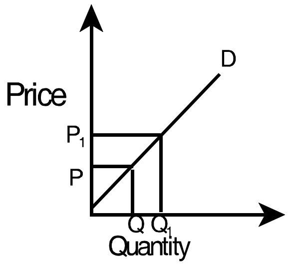
| Theory of Demand and Elasticity of Demand |
|---|
| Demand refers to the quantities of a commodity that the consumers are able and willing to buy at each possible price, during a given period of time.<br>Demand for a good is not the same thing as desire to buy.<br>For a desire to become effective demand, three things are essential:<br>**(a)** Desire of a commodity<br>**(b)** Willingness to pay<br>**(c)** Ability to pay<br>A desire becomes a demand only when it is effective which means that given the price of the good, the consumer should be willing and able to pay for the quantity which he wants to buy.<br>Determinants of demand (factors affecting demand of a commodity)<br>**(a) Price of the Commodity:**<br>Price has inverse relationship with demand. If price of a commodity increases, its quantity demanded falls.<br>**(b) Income of the Consumer:**<br>The effect of income on demand of a good depends upon the type of good. There are two types of goods:<br>**(i) Normal goods:** The demand of these goods have a direct relationship with the income of consumer. As the income of the consumer increase, he will demand more normal goods.<br>**(ii) Inferior goods:** Inferior goods are those goods which are cheap and hence consumed by poor people e.g.- bajra, jawar etc. |

In case of such goods, as the income of the consumer increases he will demand less of these goods and more of better quality goods.

**(c) Price of related Commodities:**

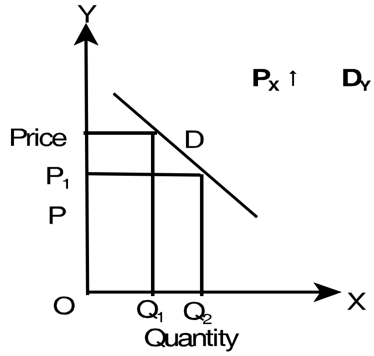
Related commodities can be:

**(i) Substitute goods:** Those goods which can be used in place of another are known as substitutes, e.g.-tea and coffee. When the price of tea increases, the demand of coffee increases. This happens because due to rise in price of tea, its demand decreases and tea consumers start shifting their demand to coffee, there by increasing the demand of coffee. It has positive cross price effect.




$P_x \uparrow D_y \uparrow$

**(ii) Complementary goods:** Those goods which are used together are called complementary goods e.g.- car and petrol when the prices of petrol rises, the demand of car decreases, this is because if there is no petrol there will be no use of car. It has negative cross price effect.




**(d) Taste and preference of Consumers:**

Other things remaining same, a favorable change in taste and preference will lead to positive change in demand and vice versa.

**(e) Future expectation of Prices:**

If consumers expect a rise in price in future, their current demand will increase whereas an expectation of fall in price will lead to fall in current demand.

**(f) Other factors:**

Other factors affecting demand are size of population, 'selling expenses', composition of population, government policy etc.

**Note:**

When demand changes due to its own price, it is called - change in quantity demanded. /Extension / Contraction.

When demand changes due to factors other than its own price, it is called - change in demand.

**Demand Function**

It refers to the functional relationship between demand of a commodity and its various factors.

$$\boxed{D_x = f(P_x, I, T \ldots\ldots\ldots\ldots\ldots)}$$

Where,
$D_x$ = demand of commodity X
f = function of
$P_x$ = Price of commodity X
I = Income of the consumer
T = Taste and preference.

**Demand Schedule**

The tabular representation showing relationship between price and quantity demanded of a commodity is known as demand schedule.
It has 2 columns
Price per unit of good ($P_x$)
Quantity demanded per period ($D_x$)

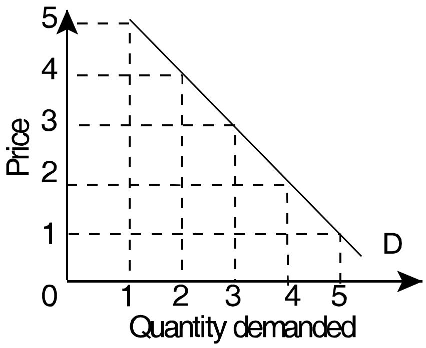
| Price of X (in ₹ per kg) | Qt. demanded of X (in kg) |
|---|---|
| 5 | 1 |
| 4 | 2 |
| 3 | 3 |
| 2 | 4 |
| 1 | 5 |

**Demand Schedule of individual**

When we show the quantity demanded of a commodity by all the consumers in the market, it is known as a market demand schedule.

**Demand Curve**

Graphical representation of demand schedule is known as demand curve. The demand curve has a negative slope and is convex to the origin. It is the locus of pairs of price per unit ($P_x$) and the corresponding demand quantities ($D_x$).

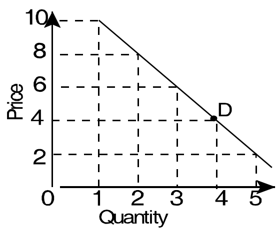



**Law of Demand**

The law of demand states that "other things being constant, quantity demanded of a commodity varies inversely with price".

**Note: Explanation**
The adjacent demand schedule and curve shows that when the price of the commodity decreases from ₹ 10 to ₹ 2, quantity demanded increases from 1 to 5. This happens only ceteris paribus i.e. when all other factors like income, price of related goods etc. are kept constant.

| Price | Qt demanded |
|---|---|
| 10 | 1 |
| 8 | 2 |
| 6 | 3 |
| 4 | 4 |
| 2 | 5 |

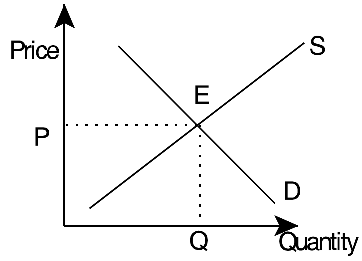


| Assumptions to the law |
|---|
| All other factors affecting demand are assumed to be kept constant.<br>**Exceptions to the law:**<br>(a) **Nature of goods:**<br>Certain goods do not follow the law of demand.<br>(i) **Giffen goods:**<br>Demand falls due to fall in the price of the commodity. First discovered by Sir Robert Giffen, Giffen goods are those goods which people continue to buy even at high prices. For e.g.- basic commodity like bread due to lack of substitute goods.<br>(ii) **Inferior goods:**<br>Demand falls due to rise in the income of the consumer. When the price of inferior goods fall, consumer's real income increases and hence he can shift to better quality goods. Hence, when their price decreases, their demand falls.<br>(iii) Ignorance<br>(iv) Conspicuous consumption. e.g.- Diamonds, luxury cars, antiques, etc.<br>(b) Change in fashion.<br>(c) Speculation (i.e. if prices are to rise in future then demand for present will be more and *vice versa*)<br>(d) **Necessities:**<br>Even if the price of necessities rises, their demand remains the same.<br>(e) **Status symbol:**<br>Sometimes people buy goods even at high prices so as to show their status, under these situations law of demand fails. Such goods are called conspicuous goods.<br>(f) **Change in fashion:**<br>If the fashion changes, the customer buy the commodity even if the price is high. Hence, the law of demand becomes ineffective.<br>(g) **Complementary Goods:** Law of demand may be violated in the case of complementary goods also for eg: rise in price of petrol may lead to fall in demand of cars. |

| Reasons for negative slope of demand curve |
|---|
| (a) **Law of diminishing marginal utility:**<br>When consumer buys more and more units of a commodity, the marginal utility progressively declines, therefore a consumer will buy additional units when its price falls. (such that MU= price). Demand curve is derived from MU curve, since MU curve has a negative slope so the demand curve also has a negative slope.<br>(b) **Income effect:**<br>When price falls, consumers real income increases, this induces him to buy more and hence there exists an inverse relationship between price and quantity demanded. For e.g. - if price of apple decreases from ₹ 20 per kg to ₹ 10 per kg. Consumer will now buy 2 kgs. of apple at ₹ 20.<br>(c) **Substitution effect:**<br>When the price of a commodity falls, price of substitutes remaining constant, the consumer will buy more of that commodity for e.g.- suppose the price of both Pepsi and coke is ₹ 10. Now the price of Pepsi falls to ₹ 8. Due to this fall consumers will start substituting coke with Pepsi and hence demand of Pepsi will rise. |

| 1.2 | Equilibrium Price |
|---|---|

| Equilibrium price |
|---|
| The price at which quantity demanded is equal to quantity supplied is called equilibrium price<br>Demand and supply concepts are the backbone of market economy. Demand analysis focuses on behaviour of consumer while supply analysis focuses on behaviour of producer. |

| **Price** | **Demand** | **Supply** | **Remarks** |
|---|---|---|---|
| 10 | 20 | 100 | Supply > Demand |
| 8 | 40 | 80 | Excess supply |
| 6 | 60 | 60 | Equilibrium |
| 4 | 80 | 40 | Demand > supply |
| 2 | 100 | 20 | Excess demand |
| |   | | |

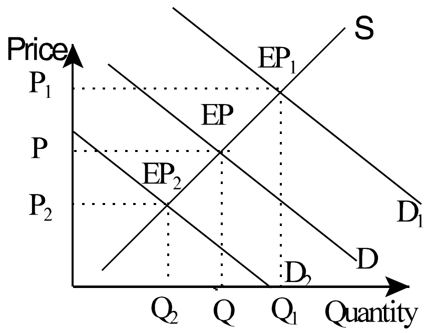
EP - equilibrium price EQ - equilibrium quantity

**Effect of changes in demand and supply on equilibrium price**

**(a) Change in demand and supply is constant:**

Increase in demand - EP rises

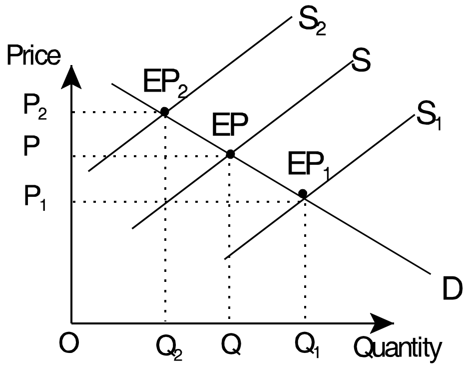
Decrease in demand - EP falls.



**(b) When supply changes and demand remains constant:**

Increase in supply - EP falls

Decrease in supply - EP rises




| 1.3 | Elasticity of Demand and Supply and other related concepts |
|---|---|

**Elasticity of Demand**

Elasticity refers to the degree of responsiveness of quantity demanded of a good to a change in its price or income.

Elasticity is the relative change in dependent variable divided by relative change in independent variable.

According to Marshall "The elasticity of demand in a market is great or small according as the amount demanded increases much or little for a given fall in price or diminishes much or little for a given rise in price".

Types of elasticity:

**(a)** Price elasticity

**(b)** Income elasticity

**(c)** Cross price elasticity

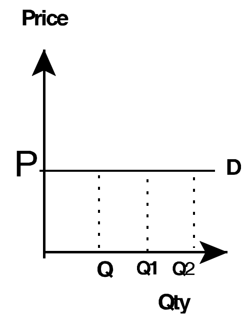
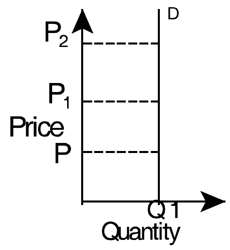
**(a) Price elasticity of demand:**

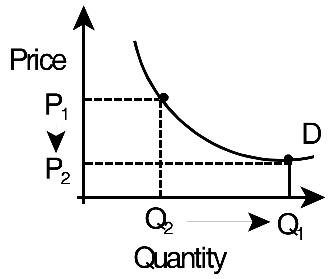
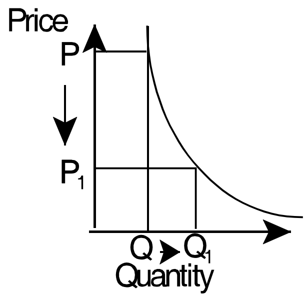
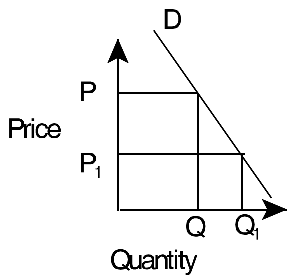
It is defined as the percentage change in quantity demanded due to percentage change in its own price.

$$E_d = \frac{\%\text{Change in Quantity demanded}}{\%\text{Change in price}}$$

- It has a negative sign because of direction of change (i.e. increase relationship between demand and supply)

**Degrees of price elasticity**

| Degree | e = | Figure |
|---|---|---|
| **1. Perfectly elastic:** When there is no change in price, but quantity demanded changes infinitely. | $e = \infty$ |  |
| **2. Perfectly inelastic:** When there is a change in price but no change in quantity demanded. | $e = 0$ |  |

| | | |
|---|---|---|
| **3. Highly elastic:** When percentage change in quantity demanded is more than percentage change in price i.e. ($Q_2 Q_1 > P_1 P_2$) | e > 1 |  |
| **4. Highly inelastic** When percentage change in quantity demanded in less than percentage change in price i.e. ($PP_1 > QQ_1$) | e < 1 |  |
| **5. Unitary elastic** When percentage change in quantity demanded is equal to percentage change in price ($PP_1 = QQ_1$) | e = 1 |  |

| Factors affecting price elasticity of demand |
|---|
| **(a) Nature of commodity:**<br>Luxury: more elastic<br>Necessity: inelastic<br>**Note:**<br>Here, elastic means if price will increase people will reduce their demand for luxuries whereas if price of necessities rises there will be no change in demand, hence it will be inelastic.<br>**(b) Availability of substitutes:**<br>• More substitutes: more elastic demand<br>• Less substitutes: less elastic demand<br>**(c) Number of uses of a commodity:**<br>• More number of uses - more elastic demand<br>• less uses: less elastic demand<br>**e.g:** when price of electricity rises its use can be reduced only to essential purposes.<br>**(d) Postponement of use:**<br>• if the use of the commodity can be postponed - the demand is elastic (i.e. we can wait for a fall in price)<br>• if the use cannot be postponed- the demand is less elastic (the commodity has to be used even at high prices)<br>**(e) Range of prices:** (Nature of Commodities)<br>• Very high price and very low price - the demand is inelastic (e.g. - diamonds and newspaper)<br>• Middle ranged goods - elastic demand (e.g. - t.v.)<br>**(f) Time period:**<br>• Long period - elastic demand<br>• Short period - inelastic demand<br>**(g) Proportion of income spent on the good:**<br>• Large proportion - elastic demand<br>• Small proportion - inelastic demand |

**Measurement of price elasticity**

1. Percentage Method (Arithmetic method)
2. Total expenditure Method
3. Geometric Method (point method)

**1. Percentage method**

also known as the flux or arithmetic method

elasticity under this method is expressed as:

$$Ed = \frac{\%\text{change in Quantity demanded}}{\%\text{change in price}}$$

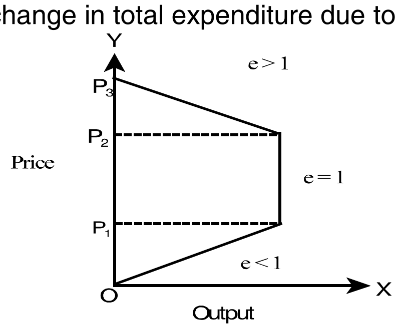
OR

$$\frac{\Delta Q}{\Delta P} \times \frac{P}{Q}$$

**2. Total expenditure method**

This method was formulated by Alfred Marshall.

Under this method we measure elasticity of demand by comparing change in total expenditure due to change in price.




- **Degrees:**
  - **(a) More elastic (e > 1):** when with a fall in price T.E. rises and with a rise in price T.E. falls.(P↓ TE↑)
  - **(b) Unitary elastic (e = 1):** when there is a change in price but T.E. remains constant. (P↑↓TE-)
  - **(c) Less elastic (e < 1):** when with a fall in price, T.E. falls and with a rise in price T.E. rises. (P↓TE↓)

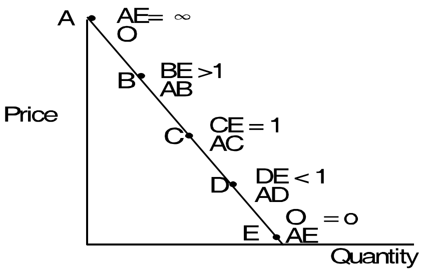
**3. Geometric method**

Also known as the point method.

It is used to measure elasticity at different points on a demand curve.

elasticity is expressed as:

$$\boxed{Ed = \frac{\text{Lower segment of demand curve}}{\text{Upper segment of demand curve}}}$$




**Arc elasticity:** when price change is larger, or price elasticity is to be found between two prices then question arises which price and quantity is to be taken as a base. We generally take average of two prices. This is arc elasticity which can be expressed as follows:

$$\boxed{Ep = \frac{q_1 - q_2}{q_1 + q_2} \times \frac{p_1 + p_2}{p_1 - p_2}}$$

**Income elasticity:**

As per Stonier and Hague-“Income elasticity of demand shows the way in which a consumer’s purchase of any good changes, as a result of change in its income.”

It can be expressed as -

$$\boxed{E_i = \frac{\text{\% Change in Demand of the Good}}{\text{\% Change in real Income of Consumer}}}$$

$$E_i = \frac{\%\,\text{change in demand}}{\%\,\text{change in income}}$$

$$E_y = \frac{\Delta Dx}{Dx} \div \frac{Py}{\Delta Py}$$

Degrees of income elasticity:

**(a) More elastic (e>1):**
When demand increases due to increase in income and falls with a fall in income e.g. - Normal goods.

**(b) Unitary elastic (e=1):**
when due to increase/decrease of income there is no change in demand.

**(c) Less elastic (e<1):**
When due to fall in income demand increases and rise of income demand falls. e.g. inferior goods.

**Cross elasticity:** (Shows Relation between commodities)
change in demand of one good in response to change in price of another is called cross elasticity of demand.
It can be expressed as -

$$Ec = \frac{\%\,\text{change in quantity demand of X}}{\%\,\text{change in price of Y}}$$

Or

$$\frac{\Delta Dx}{\Delta Py} \times \frac{Py}{Dx}$$

In case of substitute goods cross elasticity is Positive.
In case of complementary goods cross elasticity is Negative.

**Degrees of cross elasticity:**

**(a) Perfectly elastic (e = ∞):** in case of perfect substitutes

**(b) Perfectly inelastic (e = o):** when two goods are unrelated

**(c) More elastic (e >1):** [Positive elasticity]
when two goods are close substitutes
(e.g.- coke and pepsi)

**(d) less elastic (e<1):** [Negative elasticity]
when two goods are complementary
(e.g. bread and butter)

**Theory of Supply and Elasticity of Supply**

**Supply**

Supply refers to the quantity of a commodity offered for sale at a given price for a given period of time.

It represents how much market can offer.

Supply is made by the producers.

According to Watson- "Supply always means a schedule of possible prices and amount that would be sold at each price".

Supply is not the same thing as stock.

**Note: Stock and supply**

Stock - the total quantity produced by the producer.

Supply - the total quantity made available for sale by the producer.

Supply is a part of stock.

If the goal of the firm is profit maximization, the producer will decrease the market supply while if goal is sales maximization, it will increase the supply.

**Factors Affecting Supply (Determinants)**

**(a) Price of the commodity:**
Higher the price of the commodity more will be its supply (as the profit of producer will increase)

**(b) Price of related goods:**
In case of substitute goods a rise in price of one will lead to fall in supply of another. (as the producer will produce only that good which fetches more profit).

**(c) Change in Technology:**
New and better technology reduces per unit cost of production, this increases the profit margin which induces producer to sell more.

**(d) Prices of Factors of Production:**
A rise in price of factors of production will lead to a fall in supply.
**(e)** Change in number of firms in the Industry.
**(f)** Taxes and subsidies
**(g)** Goal of Business firm.
**(h)** Natural factors.
**(i)** Changes in producers or seller expectation.

**Supply function**

It refers to the functional relationship between supply and its various factors.
$S_x = f(P_x, Po, T\text{--------})$
where,
$P_x$ = price of the good
$p_o$ = price of related goods
T = technology.

**Supply schedule**

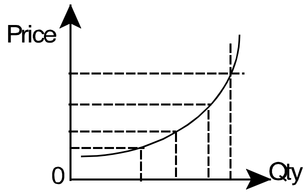
A tabular statement showing relationship between price and quantity supplied is called a supply schedule.

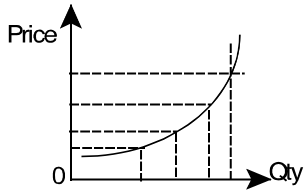
| Price | Qty supplied |
|---|---|
| 4 | 20 |
| 8 | 40 |
| 12 | 60 |
| 16 | 80 |

A schedule showing supply of all the producers in the market is called a market supply schedule.

**Supply curve**

The graphical representation of supply schedule is known as the supply curve.



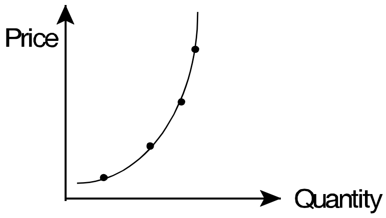




It is an upward sloping curve.

**Law of supply**

It states that “other things remaining the same, higher the price greater the quantity supplied and lower the price the smaller the quantity supplied.

| Price | Qty |
|---|---|
| 1 | 10 |
| 2 | 20 |
| 3 | 30 |
| 4 | 40 |




Assumptions of the law: All other factors affecting supply are assumed to be kept constant.

**Exceptions to the law of Supply**

**(a) Agricultural goods:** Their supply depends upon natural factors

**(b) Future expectation of prices:** If the producer expects a rise in price in future he will limit the current supply.

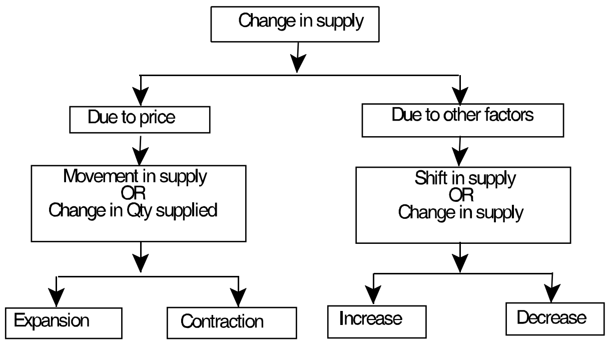
**(c) Perishable goods:** The supply of perishable goods like milk, vegetable cannot be stopped even when its price falls.

**(d)** Monopoly

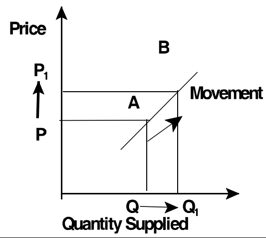
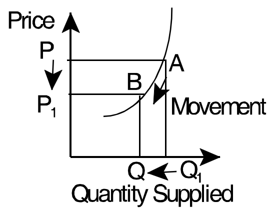
**(e)** Competition

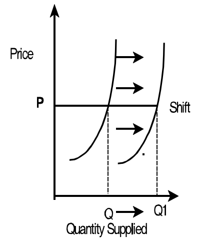
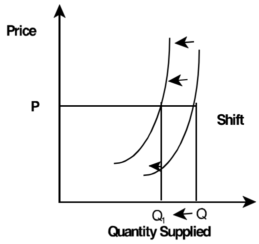
**(f)** Legislation Restricting Quantity

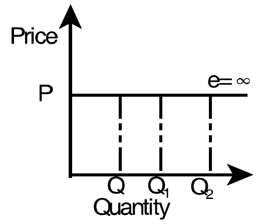
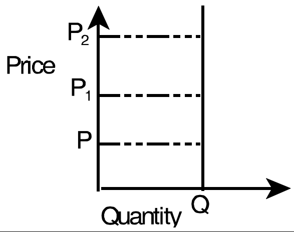
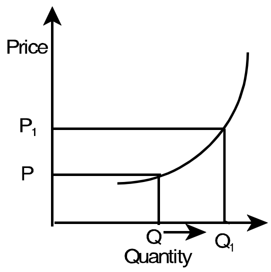
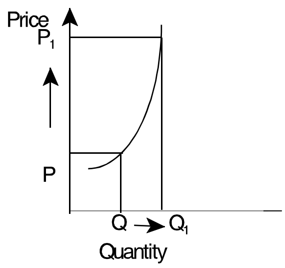
**(g)** Artistic and Auction goods

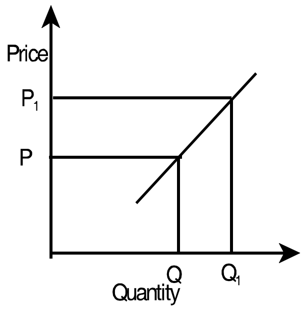



**MOVEMENT OF SUPPLY CURVE**

| | | |
|---|---|---|
| 1. Expansion | Increase in quantity supplied due to rise in price<br>Other factors are kept constant |   |
| 2. Contraction | Fall in quantity supplied due to fall in price<br>Other factors constant |   |

<table>
<tr><td colspan="3">SHIFT IN SUPPLY CURVE:</td></tr>
<tr><td>1. Increase</td><td>Increase in supply due to change in other factors Price of the good is constant</td><td></td></tr>
<tr><td>2. Decrease</td><td>Fall in supply due to change in other factor price of the good remaining constant</td><td></td></tr>
<tr><td colspan="3">Location of the supply curve is determined by the change in other factors<br>Slope of supply curve is determined by the change in its own prices.</td></tr>
<tr><td colspan="3">Price elasticity of supply</td></tr>
<tr><td colspan="3">It refers to the percentage change in supply due to percentage change in price.<br>It can be expressed as<br>$Es = \frac{\%\text{change in qty. supplied}}{\%\text{change in price}}$</td></tr>
</table>

| **Degrees of price elasticity** | | |
|---|---|---|
| **1. Perfectly elastic:** When there is a change in supply even when there is no change in price | e = ∞ |  |
| **2. Perfectly inelastic:** When there is no change in supply even when there is a change in price | e = o |  |
| **3. Highly elastic:** When percentage change in quantity supplied is more than percentage change in price | e > 1 |  |
| **4. Highly inelastic** When percentage change in quantity supplied is less than percentage change in price | e<1 |  |

| | | |
|---|---|---|
| **5. Unitary elastic** when percentage change in quantity supplied is equal to percentage change in price | e = 1 |   |

**Factors determining price elasticity of supply**

**(a) Nature of commodity:**
- Durable goods-elastic supply (e.g. - T.V.)
- Perishable goods - inelastic supply (e.g. - milk)

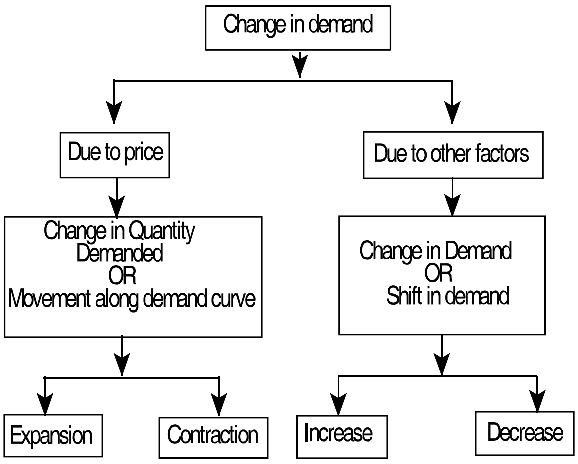
**(b) Time period:**
- Short period - inelastic supply
- Long period - elastic supply

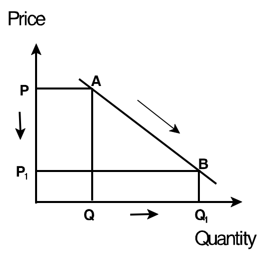
**(c) Factor mobility:**
- Mobile factor - elastic supply (e.g.- labour)
- Immobile factor - inelastic supply (e.g. land)

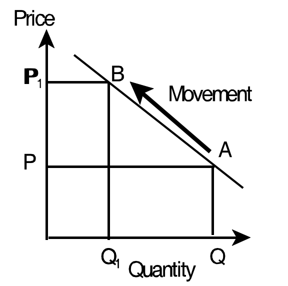
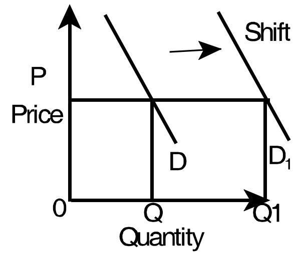
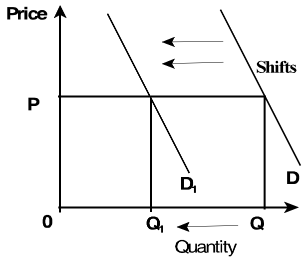
**(d) Cost Relationship:**
- Relatively Inelastic (cost rises fast)
- Relatively Elastic (cost rises slowly)

| 1.4 | **Increase and Decrease in Demand and Expansion and Contraction of Demand** |
|---|---|

**Change in demand**




| Name | Explanation | Figure |
|---|---|---|
| **Movement in Demand Curve** | | |
| 1. Expansion | • When quantity demand increases due to fall in price.<br>• Other factors remain constant |  |

| | | |
|---|---|---|
| 2. Contraction | • When quantity demanded falls due to increase in price<br>• Other factors remain constant |  |
| **Shift in Demand Curve** | | |
| Increase | • When demand increases due to change in other factors e.g: increase in income.<br>• Price remains constant |  |
| Decrease | • When demand decrease due to change in other factors e.g.: fall in income<br>• Price remains constant: |  |
| **Note:**<br>— Location of demand curve is determined by factors other than its own price.<br>— Slope of the demand curve is determined by its own price. | | |

| 1.5 | **Forms of Market Competition - Monopoly, Duopoly, Oligopoly, Perfect Competition and Monopolistic Competition** |
|---|---|

**Types of Market**

| **(I) On the basis of Area** | **(II) On the basis of Nature of Transaction** | **(III) On the basis of Time** | **(IV) On the basis of Volume** | **(V) On the basis of Competition** |
|---|---|---|---|---|
| (i) Local Market | (i) Spot Market | (i) Very short run Market | (i) Wholesale Market | (i) Perfect Competitive market |
| (ii) Regional Market | (ii) Future Market | (ii) Short run market | (ii) Retail Market | (ii) Imperfect Competitive Market |
| (iii) National Market | | (iii) Long run market | | 1. Monopoly<br>2. Monopolistic |
| (iv) International Market | | (iv) Very Long run Market | | 3. Oligopoly<br>4. Monopsony<br>5. Duopoly |

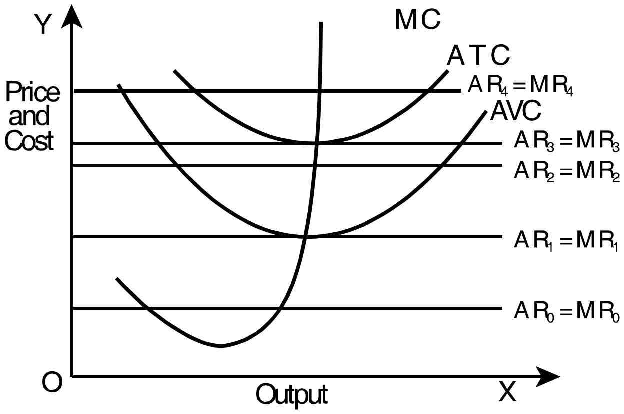
**Perfect Competition**

There is a perfect degree of competition and single price prevails.
It is the type of market where there is complete absence of rivalry.

- Perfectly competitive market refers to a market situation in which there are large number of buyers and sellers, selling homogeneous goods at prevailing price.
- It is characterized by complete absence of rivalry among firms.
- Perfect Competition market is also known as price taker (as it accepts the prices fixed by the industry).
- Business man uses word ‘competition’ as synonym of rivalry.

| Features |
| --- |
| (a) **Large number of buyers and sellers:** Due to this feature, neither the buyer nor the seller can influence the price of the product. The demand for its product is perfectly elastic.<br>(b) **Homogeneous products:** The goods supplied by different firms are perfect substitutes of each other.<br>(c) **Full knowledge of Market:** The buyers and sellers are assumed to have perfect and full knowledge of the prevailing price of the product. This helps them to take maximum benefit from the market.<br>(d) **Economic Rationality:** This market assumes that buyers and sellers are rational and will buy and sell as per their economic interest.<br>(e) **No transportation cost:** Since the products of the firms are homogeneous and sell at uniform price therefore there is no need for the seller to incur advertisement or transaction cost.<br>(f) **Free entry and exit of firms:** In this market, there is no technical or legal barrier for the new firms to enter. The choice of entering or leaving an industry lies on individual firms. |
| **Equilibrium of the firm and industry under perfect competition** |
| A firm is said to be in equilibrium when its profit are maximum, which depends upon cost and revenue of the firm. |
| **Equilibrium can have the following states** |
| (a) Short Run Equilibrium of a Competitive firm<br>(b) Long Run Equilibrium of a Competitive firm<br>(c) Short Run Equilibrium of a Competitive industry<br>(d) Long Run Equilibrium of a Competitive industry |
| (a) **Short Run Equilibrium of a Competitive Firm** |
| (a) Price of the product is given in the market at which it can sell it's any quantity.<br>(b) Plant size of firm is given (constant).<br>(c) Firm is facing given short run cost curves. |

- A firm will be in equilibrium in the short run based on two approaches.
  (a) TC - TR approach
  (b) MC - MR approach
  **Note:** Both these approaches have been already discussed at the start of this chapter.
- For short term equilibrium of a competitive firm, two conditions are necessary:
  (a) MC = MR and MC should cut MR from below.
  (b) AR must be equal to or exceed AVC.
- In a perfectly competitive firm, since price is uniform hence AR = MR = P and AR, MR curve is a straight line parallel to x axis.

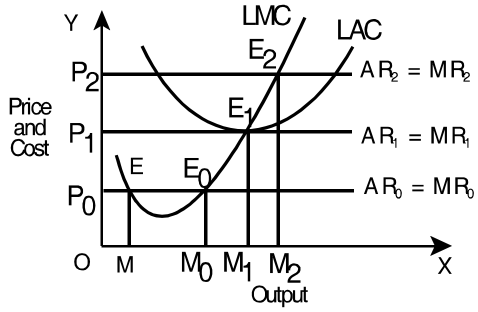



The above figure shows four different possibilities at different price levels. The position of $AR_1$ = $MR_1$ satisfies the two conditions of equilibrium. But here AR is equal to only AVC i.e. only variable cost is recovered.
At $AR_3$ = $MR_3$, the firm is able to recover its full cost including fixed cost. Here, also all conditions of equilibrium are satisfied. Above this point, when price rises, the firm starts earning supernormal/abnormal profits.

(b) Long Run Equilibrium of a competitive firm:

- In the long run, there is no fixed cost and hence average variable cost is equal to the average total cost.
- In the long run, a competitive firm incurs only normal profits because of free entry and exit of firms.
- Conditions of equilibrium for a firm in the long run are:
  (a) MC should cut MR from below
  (b) AR $\geq$ AC (but on account of free entry and exit of firms, AR cannot exceed AC)

  Hence, the firm is at equilibrium when:
  AC = AR = MC = MR = P




The above figure shows various possibilities of firm's position at various prices.

If a firm is operating at $AR_0 = MR_0$, it is incurring loss since cost is more than revenue. Most of the firms will leave the industry due to losses. Due to this per unit profit of existing sellers will increase and will reach the level of $AR_1 = MR_1$.

If the firm is operating at $AR_2 = MR_2$, it is incurring abnormal profits. Attracted by this situation more firms will join the industry and profit of individual firm will decline and will reach a level of $AR_1 = MR_1$

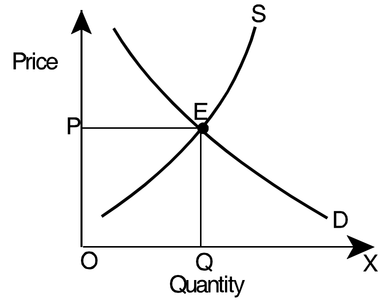
Hence the equilibrium state of position in long run will be at $AR_1 = MR_1 = P_1$

**Equilibrium of Industry Under Perfect Competition**

- Determination of price of substitute product is the result of interaction between total demand for the output of all the firms.
- On the demand side, change in its supply affects the price of the product. The industry is not price taker.
- Change in supply made by firms taken together alters the aggregate supply to such an extent that it cannot sell more without lowering the price.
- It results in the downward sloping demand curve for the industry.
- Note that the existing buyers buy the product because they are able to equate their marginal utility with price. They would buy more only if price falls.
- Similarly, for new buyers, entering the industry, the existing price is higher than the marginal utility of the product & they would buy more if the price is reduced.
- Accordingly, the demand curve for the product of the firm must have a negative slope indicating that more of the product can be sold only by reducing its price.

(c) **Short Run Equilibrium of the industry under perfect competition:**

- Under perfect competition firm is the price taker and industry is the price maker.
- Industry determines the price by the forces of demand and supply.




In the above given figure, point E is the equilibrium of the competitive industry EP is the equilibrium price and EQ is the equilibrium quantity.

(d) **Long Run Equilibrium of Competitive industry:**

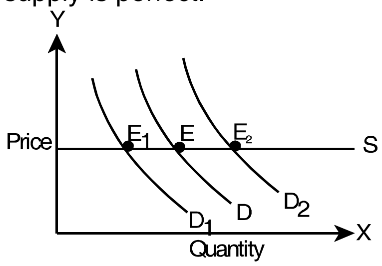
- In the long run, supply cannot be same because in long run, firms enter and leave the industry and hence supply changes.
- In the long run, supply may change in the following three ways and corresponding to this equilibrium price changes:
  1. Constant Returns
  2. Diminishing Returns
  3. Increasing Returns

**1. Constant Returns:**

This situation occurs when due to expansion of industry, there are neither economies nor diseconomies i.e. average cost remains constant (so supply is constant).

Here equilibrium price remains same whereas quantity changes.

The elasticity of supply is perfect.



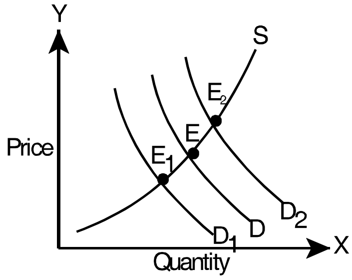

The figure shows that even when there is a change in demand, supply remains constant hence there is no scope for any firm to enter or leave.

**2. Diminishing Returns:**

This occurs when the expansion of the industry leads to increase in average cost of production. Here, the supply curve will slope upward implying that the industry will be ready to sell more if price increase. As the average cost of production increases, the new firms who enter the industry also face higher average product cost.

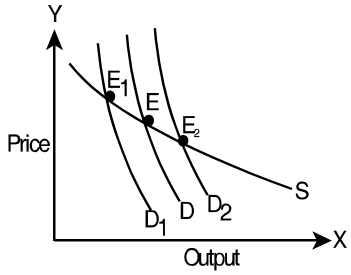
- Expansion results in higher diseconomies than the economies (Diseconomies > Economies), resulting in increased average cost of production.

- The supply curve slopes upwards and it implies that the industry will be ready to sell more only if the prices offered increases.




**3. Increasing Returns:**

This occurs when due to increase in level of production, average cost declines. Here supply curve has a negative slope implying that firms will produce even if price is falling (as their cost of production is declining).




This approach was criticized by many economists but was supported by Marshall.

**Monopoly**

**Prof. A.J. Braff,** " under pure monopoly, there is a single seller in the market. The monopolists demand is the market demand. The monopolist is a price maker, pure monopoly suggests no substitute situation,"

Monopoly is made from two words: "Mono" and "Poly" where mono means single and poly means seller.

- Monopoly is that market in which there is a single seller in the market producing such goods which have no close substitute.
- In monopoly, firm and industry are same.
- Here, the firm/industry is the price maker.
- Example-Railways.
- In order to increase sales monopolist must reduce the price of his product so as to induce:
  1. existing buyer to buy more.
  2. new buyer to enter the market.

**Features**

**(a) Single seller and large number of buyers:**
Since there is a single seller in the market, therefore prices are controlled by the seller. No buyer can influence the price.

**(b) No close substitutes:**
**Pure monopoly:** Under this situation, there is no substitute of the product.
**Simple monopoly:** Under this situation, the product has close substitutes but no perfect substitute.

**(c) Restriction on entry of new firms:**
Due to certain legal and natural barriers, no new firm is allowed to enter the industry.

**(d) Price discrimination:**
- The act of charging different prices from different buyers of the same good is called price discrimination.
- A monopoly performing price discrimination is called discriminating monopoly.
  - **Types of price discrimination:**
    By Pigou
    (i) **Discrimination of first degree:**
    When monopolist charge separate price for each unit
    (ii) **Discrimination of second degree:**
    When monopolist charges separate price of each batch or lot

(iii) **Discrimination of third degree:**
When monopolist charges different prices from different category of buyers.

- **Reasons for price discrimination:**
  (i) **Consumer ignorance:**
  Consumer lacks knowledge of cost of product therefore, seller can charge different prices from different consumers.
  (ii) **Different Markets:**
  Monopolist charges different prices in different markets. Prices in these markets may differ due to distance between one market and another.
  (iii) **Charging different price from different customers:**
  Monopoly may charge different prices from different consumers based on their elasticity of demand.
  **e.g:** A higher price from those having less elasticity and *vice versa*.

**(e) Shape of AR curve:**
In monopoly, if a seller wants to increase the sale of his product, then he must reduce the price. Due to this, the AR and MR curve are downward sloping.

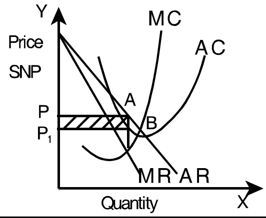
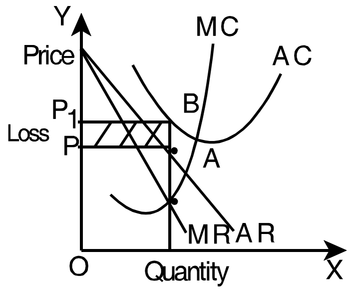
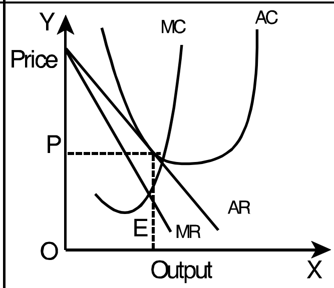
**Equilibrium of a monopoly firm:**

(i) A firm attains equilibrium when:
- MC cuts MR from below
- AR > AC

(ii) Equilibrium of a monopoly firm is possible under two situations:
1. Short Run equilibrium
2. Long Run equilibrium

**In short Run:** Monopolist may incur a loss but will shut down the plant only if loss exceeds its fixed cost.

**In long Run:** Monopolist would not stay in the market if he is to operate at a loss.

| **1. Short Run equilibrium** | | |
|---|---|---|
| Under monopoly in the short the following three situations are possible: | | |
| **Situation** | **Explanation** | **Figure** |
| 1. Normal profits | A firm earns normal profits when its AR = AC. |  |
| 2. Super Normal Profits | A firm earns super normal profits when AR > AC |  |
| 3. Losses | A firm incurs losses when AR < AC |  |

**Note:**

**Normal Profit:**

It is that profit which is included in the total cost and used for recovering fixed cost. Therefore even when AR = AC, then also firm is earning normal profits.

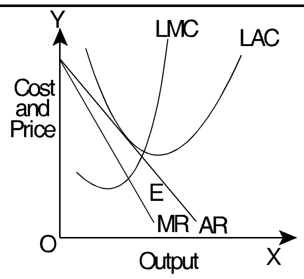
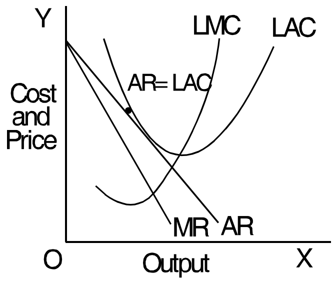
**Abnormal/Super normal profits:**

The profit that is over and above the normal profit, is known as super normal profit. It arises when AR > AC.

**2. Long Run Equilibrium**

In the long run the monopolist can change the supply and hence will not operate if he is incurring losses.

Therefore, in the long run only two situations are possible

| Situation | Explanation | Figure |
|---|---|---|
| 1. Normal Profits | It occurs when AR = LAC |   |
| 2. Super Normal Profits | It occurs when AR > LAC |   |

**Note:**
Note that in perfect competition, abnormal profit is not possible in the long run. A monopoly firm can enjoy abnormal profits in the long run as the entry and exit of firms is restricted.

**Monopolistic Competition**

**Prof. Leftwitch,** " Monopolistic is a market situation in which there are many sellers of a particular products but the product of each seller is in some way differentiated in the minds of consumers from the product of every other seller".

**Prof. H.H. Liebhafsky,** " Monopolistic competition has today come to mean a state of affairs in which there is a large number of sellers, selling non-homogeneous or slightly differentiated products and in which freedom of entry, and exit exists".

- It is a market situation which has large number of buyers and sellers selling differentiated goods.
- In real life, most of the markets are of this type only since perfect competition and monopoly is a myth.
- In this market every seller is a monopolist of his differentiated products.
- Example - toothpaste, automobile industry, cosmetics industry, etc.

**Features**

**(a) Large number of sellers:**
In this market although there are a large number of sellers still do not become price taker. Due to differentiated product, they are free to choose the price of their product.

**(b) Product differentiation:**
- This is the most important feature of monopolistic competition.
- This is the act of producing differential goods i.e. close substitute goods which may differ in packing, colour, quality, etc. e.g. colgate, pepsodent, babool etc.
- **Types of product differentiation:**
  (i) Real (ii) Imaginary
  (i) **Real:** It arises due to change in raw material, colour packing, etc.

(ii) **Imaginary:** It arises due to imaginary differences in the form of brand, trade-marks, shape, size etc.

- Product differentiation necessitates the incurring of selling expenses like advertising etc.
- Some important methods of product differentiation are: trade marks, brand names, size, packing, colour etc.

**(c) Selling expenses:**

- In a non-price competition, in order to increase sales, selling expenses in the form of advertising, publicity etc. are required.
- Selling expenses are the outlays which are made to increase/create demand.
- Various forms of selling expenses are advertisement, show rooms, selling campaigns, offer discounts, incentives etc.
- Generally, average selling cost curve is U shaped but if the selling budget is given, it will be a rectangular hyperbola. (similar to AFC curve)

**(d) Concept of group:**

In a monopolistic competition, it is difficult to define an industry since the firm are selling differentiated goods. Hence, they may be called as "group" of firms instead of industry.

**(e) Average Revenue Curve:**

In this market, in order to increase the sales the seller should reduce the price (because of presence of close substitutes), hence the AR curve or the demand curve has a negative slope.

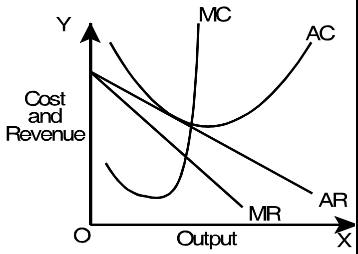
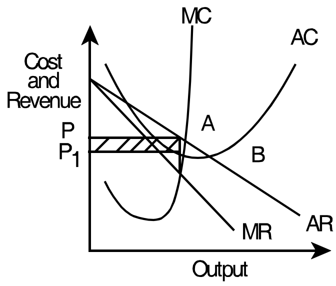
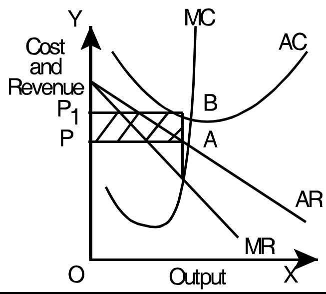
**(f) Free entry and exit of firms:**

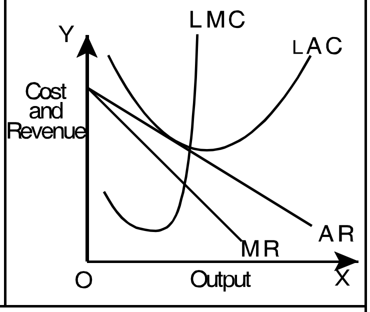
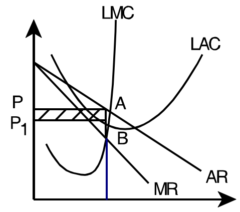
This market allows free entry and exit of firms.

**Equilibrium under monopolistic competition:**

Equilibrium under this market can be studied under two situations:

1. Short Run
2. Long Run

<table>
<tr><td colspan="3">1. Short Run</td></tr>
<tr><td>Situation</td><td>Explanation</td><td>Figure</td></tr>
<tr><td>1. Normal Profit</td><td>It arises when<br>AR = AC</td><td>
</td></tr>
<tr><td>2. Super Normal Profits</td><td>It arises when<br>AR > AC</td><td>
</td></tr>
<tr><td>3. Losses</td><td>When AR < AC, the firm incurs losses</td><td>
</td></tr>
<tr><td colspan="3">Note:<br>➠ The situation is same as in monopoly in short run.<br>➠ Since different firms have different prices of their product so "group equilibrium" is not possible in reality.</td></tr>
</table>

| **2. Long Run Equilibrium** | | |
|---|---|---|
| **Situation** | **Explanation** | **Figure** |
| 1. Normal Profits | It arises when LAC = AR |  |
| **Short Run Equilibrium** | | |
| 1. Super Normal Profits | It occurs when LAC < AR |  |
| The biggest advantage of monopolistic competition is that it is closer to reality.<br>The biggest disadvantage of this market is the concept of group of firm. | | |
| **Oligopoly** | | |
| The term oligopoly is derived from two Greek words.<br>‘Oligi’ means few and ‘polein’ means to sell.<br>An oligopoly is an industry dominated by few firm.<br>**Example:** Supermarket, petrol, can industry etc.<br>Oligopoly is a market structure in which there are few firms selling homogenous or differentiated product. | | |

The main characteristics of oligopoly are:

1. Few firms.
2. Barriers to Entry.
3. Non-price competition.
4. Interdependence.
5. Nature of product.
6. Selling cost.
7. No unique pattern of pricing behaviour.
8. No determinates of demand curve.

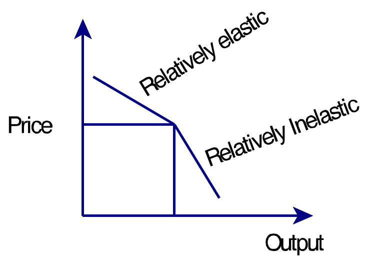
**Firm's behaviour under oligopoly**

There may be different possible outcomes in relation to firm's behaviour under oligopoly.

There are as follows:

1. Stable Prices. (e.g. through kinked demand curve)
2. Price wars (competitive oligopoly)
3. Collusion for higher prices.

**Kinked Demand Curve**




It is an "American Philosophy"
Kinked demand curve was given by "Paul A. Sweezy"
It is also known as Sweezy Model.
It has a (bend) kink shape.

| **Type of Oligopoly** |
|---|
| (i) Pure or perfect oligopoly<br>(ii) Open and close oligopoly<br>(iii) Partial and full oligopoly<br>(iv) Syndicated and organised oligopoly<br>(v) Collusive and Non-collusive oligopoly |
| **Concept of Externalities** |
| • The term externality is used to describe the cost or benefit incurred by the third party who did not choose to receive the cost or benefit.<br>• Externalities may be positive or negative:<br>(a) Positive Externalities:<br>• It is defined as economic activities that have positive effect on unrelated third party.<br>(b) Negative Externalities:<br>• It is defined as economic activities that have negative effect on unrelated third parties. |
| **Duopoly** |
| • It is a form of market where two companies control all or most of the market for a product or service.<br>• Entry for other sellers in such market is either restricted due to some government regulations or is made insurmountable by present sellers.<br>• The two firms produce a homogeneous and indistinguishable goods.<br>• With few significant competitors, firms are able to generate significantly higher profits.<br>• The market is simpler for consumers, as they do not have to search among dozens of options to choose the best product or service.<br>• There are two primary types of duopolies:<br>(i) Cournol Duopoly<br>(ii) Bertrand Duopoly |

## PRACTICE QUESTIONS

1. 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 purchases.
   **Answer:** [ ]
2. 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) Smaller than one
   (d) Zero
   **Answer:** [ ]
3. In the case of an inferior goods, the income elasticity of demand is:
   (a) Positive
   (b) Zero
   (c) Negative
   (d) Infinite
   **Answer:** [ ]
4. If the demand for a good is inelastic, an increase in its price will cause the total expenditure of the consumers of the goods to:
   (a) Remain the same
   (b) Increase
   (c) Decrease
   (d) Any of these
   **Answer:** [ ]

5. The law of demand is:
   (a) A quantitative statement
   (b) Qualitative statement
   (c) Both a quantitative and a qualitative statement
   (d) Neither a quantitative nor a qualitative statement

   **Answer:** 

6. All of the following are determinants of demand except:
   (a) Tastes and preferences
   (b) Quantity supplied
   (c) Income
   (d) Price of related goods

   **Answer:** 

7. _________ goods are those goods which are consumed together simultaneously.
   (a) Competing goods
   (b) Complementary goods
   (c) Inferior goods
   (d) Superior goods

   **Answer:** 

8. Larger the size of the population of a country or region, __________ is the demand for commodities.
   (a) Lesser
   (b) Greater
   (c) Same
   (d) No effect

   **Answer:** 

9. Demand can be defined as:
   (a) Desire to buy
   (b) Ability to pay
   (c) Willingness to buy
   (d) Desire and willingness to buy backed by adequate purchasing power.

   **Answer:** 

10. Movement along the demand curve is due to the following reason:
    (a) Change in the price of substitute goods
    (b) Change in the price of the commodity
    (c) Improvement in technology
    (d) Both “a” and “c”

    **Answer:** $\boxed{\phantom{xx}}$

11. If two goods are perfect substitute for each other, cross elasticity is____.
    (a) Negative
    (b) Positive
    (c) Not defined
    (d) None of the above

    **Answer:** $\boxed{\phantom{xx}}$

12. Demand remains constant, decrease in supply means _________ in equilibrium price.
    (a) Falls
    (b) Rise
    (c) Both (a) and (b)
    (d) None of the above

    **Answer:** $\boxed{\phantom{xx}}$

13. A vertical supply curve parallel to the Y-axis implies that the elasticity of supply is:
    (a) Zero
    (b) Infinite
    (c) Equal to 1
    (d) Greater than 0 but less than 1

    **Answer:** $\boxed{\phantom{xx}}$

14. Total expenditure method of measuring elasticity was formulated by:
    (a) Alfred Marshall
    (b) Hicks and Allen
    (c) Ragnes Frisch
    (d) Paul A Samuelson

    **Answer:** $\boxed{\phantom{xx}}$

15. For luxuries, the elasticity is __________.
    (a) Less than 1
    (b) Equal to 1
    (c) More than 1
    (d) Zero

    **Answer:** ☐
16. Supply Curve is ________ sloped, in direction from__ .
    (a) Positively, upward to right
    (b) Positively, downward negatively sloped
    (c) Negatively, downward to left
    (d) Negatively, left to right.

    **Answer:** ☐
17. Which one of these is not an exception to the law of supply?
    (a) Competition
    (b) Monopoly
    (c) Change in fashion
    (d) Perishable goods

    **Answer:** ☐
18. Excess supply of a commodity will cause ________ in its price.
    (a) Rise
    (b) Consistency
    (c) No effect
    (d) Fall

    **Answer:** ☐
19. In ________, small change in price causes a greater change in quantity demanded.
    (a) Relatively elastic demand
    (b) Perfectly elastic demand
    (c) Unitary elastic demand
    (d) None of the above

    **Answer:** ☐

20. If the price for laptops increases, and relatively the demand for tablets increases then, laptops and tablets are:
    (a) Ceteris Paribus products (b) Independent products
    (c) Substitute products (d) Complementary products

    **Answer:** ☐

21. Necessities are price ________ while luxury goods are ________ .
    (a) Unitary, Inelastic
    (b) Elastic, Unitary
    (c) Elastic, Inelastic
    (d) Inelastic, Elastic.

    **Answer:** ☐

22. Goods for which demand rises when the price increases and demand falls when price decreases:
    (a) Giffen goods
    (b) Normal goods
    (c) Superior goods
    (d) Inferior goods

    **Answer:** ☐

23. Under law of demand:
    (a) Price of commodity is an independent variable
    (b) Quantity demanded is dependent variable
    (c) Reciprocal relationship is found between price and quantity demanded
    (d) All of the above

    **Answer:** ☐

24. 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

    **Answer:** ☐

25. A typical demand curve cannot be:
    (a) Concave from below
    (b) Convex from below
    (c) Rising upward to right
    (d) A straight line

    **Answer:**

26. When price decreases, quantity demanded increase it is known as:
    (a) Expansion of demand
    (b) Contraction of demand
    (c) Increase in demand
    (d) Decrease in demand

    **Answer:**

27. Which of the following is not the exception to the law of demand?
    (a) Giffen goods
    (b) Level of income
    (c) Future expectations
    (d) Conspicuous necessities

    **Answer:**

28. When price elasticity is found between two points is known as:
    (a) Arc elasticity
    (b) Cross elasticity
    (c) Point elasticity
    (d) None of the above

    **Answer:**

29. Luxury goods are price ________ while necessities are price________.
    (a) Inelastic, Elastic
    (b) Elastic, Inelastic
    (c) Inelastic, Unitary
    (d) Unitary, Elastic

    **Answer:**

30. The elasticity of substitution between two perfect substitutes is _______.
    (a) Greater than O
    (b) Infinity
    (c) Less than infinity
    (d) Zero

    **Answer:** ☐

31. Slope of a demand curve is determined by:
    (a) its own price
    (b) factors other than its own price
    (c) any of these
    (d) None of these.

    **Answer:** ☐

32. Demand for car decreases due to increase in price. It implies that car and petrol are ____________.
    (a) Normal goods
    (b) Inferior goods
    (c) Substitute goods
    (d) Complementary goods

    **Answer:** ☐

33. Effect of change in the price of a product on the consumer's purchasing power is __________.
    (a) Consumer surplus
    (b) Income effect
    (c) Substitute effect
    (d) None of the above

    **Answer:** ☐

34. In a free market economy, when consumers increase their purchases of a good and the level of _____ exceeds ______, then prices tend to rise.
    (a) Demand, supply (b) Supply, demand
    (c) Prices, demand (d) Profits, supply

    **Answer:** ☐

35. Total revenue falls as the price of a good increase if price elasticity of demand is:
    (a) Elastic
    (b) Unitary elastic
    (c) Inelastic
    (d) Perfectly Elastic

    **Answer:** $\boxed{\phantom{xx}}$

36. What is the shape of the demand curve faced by a firm under perfect competition?
    (a) Horizontal
    (b) Vertical
    (c) Positively sloped
    (d) Negatively sloped

    **Answer:** $\boxed{\phantom{xx}}$

37. Which of the following is not a condition of perfect competition?
    (a) A large number of firms
    (b) Perfect mobility of factors
    (c) Informative advertising to ensure that consumers have good information.
    (d) Freedom of entry and exit into and out of the market.

    **Answer:** $\boxed{\phantom{xx}}$

38. Which is the other name that is given to the average revenue curve?
    (a) Profit curve
    (b) Demand curve
    (c) Average cost curve
    (d) Indifference curve

    **Answer:** $\boxed{\phantom{xx}}$

39. Under which of the following forms of market structure does a firm has no control over the price of its product?
    (a) Monopoly
    (b) Monopolistic competition
    (c) Oligopoly
    (d) Perfect competition

    **Answer:** $\boxed{\phantom{xx}}$

40. In perfect competition in the long run there will be no_________.
    (a) Normal profits
    (b) Supernormal profit
    (c) Production
    (d) Costs

    **Answer:** [ ]

41. When the perfectly competitive firm and industry are in long run equilibrium then:
    (a) P = MR = SAC = LAC
    (b) D = MR = SMC = LMC
    (c) P = MR = Lowest point on the LAC curve
    (d) All the above

    **Answer:** [ ]

42. The perfectly competitive firm can sell its output at_________prices.
    (a) Variable
    (b) Normal
    (c) Fixed
    (d) Normal or fixed

    **Answer:** [ ]

43. Supply of a product in _________is relatively inelastic.
    (a) Short period
    (b) Long period
    (c) Very short period
    (d) None of the above

    **Answer:** [ ]

44. Many sellers offering differentiated products to many buyers is characterized as:
    (a) Oligopoly
    (b) Monopoly
    (c) Monopolistic competition
    (d) Perfect competition

    **Answer:** [ ]

45. ________refers to the selling of specific commodity or service to different buyer at two or more different prices.
   (a) Price determination
   (b) Price differentiation
   (c) Product differentiation
   (d) Price discrimination

   **Answer:** $\boxed{\phantom{xx}}$

46. In perfect competition since firm is the price taker which curve is straight line?
   (a) Total revenue
   (b) Marginal revenue
   (c) Total cost
   (d) Marginal cost

   **Answer:** $\boxed{\phantom{xx}}$

47. Product differentiation is the feature of_____________.
   (a) Perfect competition
   (b) Monopoly
   (c) Oligopoly
   (d) Monopolistic competition

   **Answer:** $\boxed{\phantom{xx}}$

48. Under ________ there will be no difference between firm and industry.
   (a) Duopoly
   (b) Bilateral monopoly
   (c) Monopoly
   (d) None of the above

   **Answer:** $\boxed{\phantom{xx}}$

49. Monopolist is a _________.
   (a) Price taker
   (b) Price dictator
   (c) Price maker
   (d) Price motivator

   **Answer:** $\boxed{\phantom{xx}}$

50. In the long run, monopolist firm earn _________.
    (a) Supernormal profit
    (b) Loss
    (c) Normal profit
    (d) Any of these

    **Answer:** $\boxed{\phantom{xx}}$

51. In long run, a monopolist can make profit because of:
    (a) Low cost
    (b) Restricted entry
    (c) Product differentiation
    (d) High scales of Economy

    **Answer:** $\boxed{\phantom{xx}}$

52. The term differentiated product denotes_______ product used by______ set of people.
    (a) Same, Differentiated
    (b) Different, Differentiated
    (c) Same, Same
    (d) Different, Same

    **Answer:** $\boxed{\phantom{xx}}$

53. In monopolistic competitive market, seller try to compete on the basis of:
    (i) Price
    (ii) Aggressive Advertising
    (iii) Efficient after sale service
    (iv) Product development
    (a) Only (i)
    (b) Only (iii) and (iv)
    (c) Only (ii), (iii) and (iv)
    (d) (i), (ii), (iii) and (iv)

    **Answer:** $\boxed{\phantom{xx}}$

54. Which of the following is correct regarding perfect competition?
    (i) Firm is the price maker
    (ii) AR = MR
    (iii) MR is linear and parallel to x - axis

(a) Only (i) and (ii)
(b) Only (ii) and (iii)
(c) Only (i) and (iii)
(d) All (i), (ii) and (iii)

**Answer:** [ ]

55. Discriminating monopolist charges a higher price from the market which has a relatively_________demand.
(a) Elastic
(b) Inelastic
(c) Perfectly elastic
(d) Greater than 1

**Answer:** [ ]

56. In imperfect competition, which of the following curves generally lies below the demand curve and slopes downward?
(a) Marginal cost
(b) Marginal revenue
(c) Average cost
(d) Average revenue

**Answer:** [ ]

57. In the long run, a perfectly competitive firm earns only normal profits because of:
(a) Product homogeneity in the industry
(b) Large number of seller and buyers in the industry
(c) Free entry and exit of firms in the industry
(d) Both (a) and (b) above

**Answer:** [ ]

58. In India monopoly exists in the following industry?
(a) Internet service providing industry
(b) Rail transportation
(c) Small car industry
(d) Electricity generation.

**Answer:** [ ]

59. Which of the following is false in a monopolistic competition?
    (a) Many buyers and sellers
    (b) Identical products
    (c) Easy entry and exit
    (d) Price of the competitor is the bench mark price

    **Answer:** [ ]

60. In general speaking, market refers to a place but in economic terms refers to ________ .
    (a) Product
    (b) Internet
    (c) Place again
    (d) All of the above

    **Answer:** [ ]

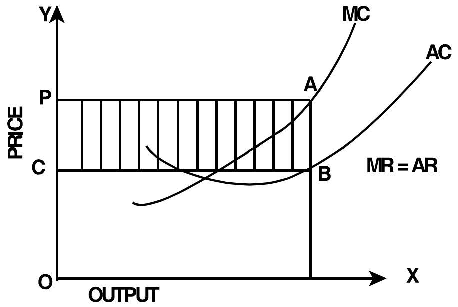
61. ________ refers to the amount of money which a firm realizes by selling certain units of a commodity .
    (a) Total revenue
    (b) Average revenue
    (c) Marginal revenue
    (d) Total product

    **Answer:** [ ]

62. Under which of the following conditions, industry is said to have attained long run equilibrium?
    (a) All firms are earning normal profit
    (b) No further entry and exit from the market
    (c) Both (a) and (b)
    (d) All firms are earning supernormal profit.

    **Answer:** [ ]

63. In the following figure, the area ABCP shows:




(a) Loss
(b) Normal profit
(c) Super normal profit
(d) Shut down point

**Answer:**

64. What is the reason for downward slope of monopolist's demand curve?
(a) Because monopolist can influence the price
(b) Because monopolist can influence the output
(c) Because the industry's demand curve is the monopolist's demand curve
(d) All of the above.

**Answer:**

65. In which of the following market situation are the firms mutually interdependent in pricing output decisions?
(a) Oligopoly
(b) Perfect competition
(c) Monopoly
(d) Monopolistic competition

**Answer:**

66. A monopolist may determine either ________ or ________, but he cannot determine ________ .
    (a) Price, output, revenue
    (b) Price, output, sales volume
    (c) Price, output, both
    (d) None of the above

    **Answer:** $\boxed{\phantom{xx}}$

67. When all the firms are functioning with normal profit, ________ is said to be in equilibrium.
    (a) Firm
    (b) Market
    (c) Industry
    (d) None of the above.

    **Answer:** $\boxed{\phantom{xx}}$

68. Which of the following equation is correct?
    (a) $MR = \triangle TR/\triangle Q$
    (b) $MR_n = TR_n - TR_{n-1}$
    (c) Both (a) and (b)
    (d) $MR = TR/Q$

    **Answer:** $\boxed{\phantom{xx}}$

69. If the firm is not producing anything, it will have an operating loss equal to its ________.
    (a) Total cost
    (b) Average cost
    (c) Fixed cost
    (d) Variable cost

    **Answer:** $\boxed{\phantom{xx}}$

70. If new firm enters in the industry in long run in perfect competitive market, supply curve:
    (a) Shifts to the right
    (b) Shifts to the left
    (c) Moves downwards
    (d) Supply curve will not be affected

    **Answer:** $\boxed{\phantom{xx}}$

71. Government fixes the price of critical inputs, which of the following are the critical inputs?
    (i) Petrol
    (ii) Diesel
    (iii) Fertilizers
    (iv) Coal
    (v) Kerosene
    (a) Only (i), (ii) and (iii)
    (b) Only (i), (ii) and (v)
    (c) Only (i), (ii), (iii) and (v)
    (d) (i), (ii), (iii), (iv) and (v)
    **Answer:** ☐
72. The price of the product depends upon:
    (a) Demand
    (b) Supply
    (c) Both (a) and (b)
    (d) Production
    **Answer:** ☐
73. Under which of the following condition, monopolist can incur loss?
    (a) AC > AR
    (b) MC > MR
    (c) ATC > AR
    (d) All of the above.
    **Answer:** ☐
74. Monopolistic competition does not exist in the following industry:
    (a) Salt
    (b) Toothpastes
    (c) Ice creams
    (d) Exists in all the above industries
    **Answer:** ☐

75. In a perfectly competitive market, the demand curve is ________.
    (a) Relatively elastic
    (b) Infinitely elastic
    (c) Relatively inelastic
    (d) Unitary elastic

    **Answer:** $\boxed{\quad}$

76. If demand decreases and supply remains constant, equilibrium price will ________.
    (a) Constant
    (b) Moves down
    (c) Moves up
    (d) No affect

    **Answer:** $\boxed{\quad}$

77. Which of the following are the barriers to entry?
    (a) Government regulation
    (b) Product differentiation
    (c) High cost of production
    (d) All of the above

    **Answer:** $\boxed{\quad}$

78. Soaps are example of:
    (a) Perfect competition
    (b) Monopoly
    (c) Oligopoly
    (d) Imperfect competition

    **Answer:** $\boxed{\quad}$

79. The reason for the kinked demand curve is that:
    (a) The oligopolist believe that competitors will follow output increase but not output.
    (b) The oligopolist believe that competitors will follow price cuts but not price rises.
    (c) Both (a) & (b)
    (d) None of these.

    **Answer:** $\boxed{\quad}$

80. Kinked demand curve under oligopoly is designed to show:
    (a) Price and output determination
    (b) Price rigidity
    (c) Price leadership
    (d) Collusion among rivals

    **Answer:** ☐

81. _______ is that situation in which a firm bases its market policy, in part on the expected behaviour of a few close rivals.
    (a) Oligopoly
    (b) Monopolistic Competition
    (c) Monopoly
    (d) Perfect competition

    **Answer:** ☐

82. Kinked Demand curve hypotheses is given by:
    (a) Alfred Marshal
    (b) A.C. Pigou
    (c) Sweezy
    (d) Hicks & allen

    **Answer:** ☐

83. Kinked demand curve is observed in ______.
    (a) Dipole Market
    (b) Monopoly Market
    (c) Competitive Market
    (d) Oligopoly Market

    **Answer:** ☐

84. OPEC is an example of:
    (a) Monopolistic competition
    (b) Monopoly
    (c) Oligopoly
    (d) Dipole

    **Answer:** ☐

85. Externalities may be:
  (a) Positive
  (b) Negative
  (c) Mixed
  (d) Both (a) and (b).

  **Answer:** [ ]

86. ______ are defined as economic activities that have positive effect on unrelated third party.
  (a) Positive Externalities
  (b) Negative Externalities
  (c) Both (a) and (b)
  (d) None of these.

  **Answer:** [ ]

## ANSWER

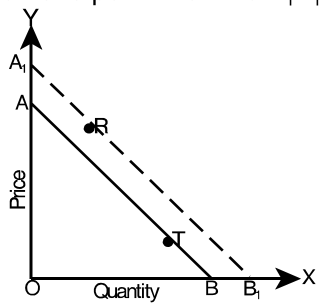
| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **1** | (b) | **2** | (c) | **3** | (c) | **4** | (b) | **5** | (b) | **6** | (b) |
| **7** | (b) | **8** | (b) | **9** | (d) | **10** | (b) | **11** | (b) | **12** | (b) |
| **13** | (a) | **14** | (a) | **15** | (c) | **16** | (a) | **17** | (c) | **18** | (d) |
| **19** | (a) | **20** | (d) | **21** | (d) | **22** | (a) | **23** | (d) | **24** | (b) |
| **25** | (c) | **26** | (a) | **27** | (b) | **28** | (a) | **29** | (b) | **30** | (b) |
| **31** | (a) | **32** | (d) | **33** | (b) | **34** | (a) | **35** | (a) | **36** | (a) |
| **37** | (c) | **38** | (b) | **39** | (d) | **40** | (b) | **41** | (d) | **42** | (c) |
| **43** | (a) | **44** | (c) | **45** | (d) | **46** | (b) | **47** | (d) | **48** | (c) |
| **49** | (c) | **50** | (a) | **51** | (b) | **52** | (d) | **53** | (c) | **54** | (b) |
| **55** | (b) | **56** | (b) | **57** | (c) | **58** | (b) | **59** | (b) | **60** | (a) |
| **61** | (a) | **62** | (c) | **63** | (c) | **64** | (c) | **65** | (a) | **66** | (c) |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **67** | (c) | **68** | (c) | **69** | (c) | **70** | (a) | **71** | (d) | **72** | (c) |
| **73** | (c) | **74** | (d) | **75** | (b) | **76** | (b) | **77** | (d) | **78** | (d) |
| **79** | (b) | **80** | (b) | **81** | (a) | **82** | (c) | **83** | (d) | **84** | (c) |
| **85** | (d) | **86** | (a) | | | | | | | | |

## PAST YEAR QUESTIONS

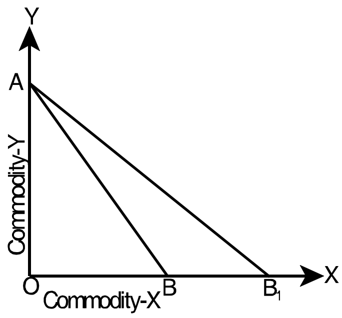
## QUESTIONS OF DECEMBER 2012

1. With a fall in the price of a commodity:—
   (a) Demand for the commodity increases
   (b) Demand for the commodity decreases
   (c) Quantity demanded of the commodity contracts
   (d) Quantity demanded of the commodity expands.
2. A consumer changes, his purchase of a commodity from point T on AB curve to point R on the $A_1B_1$, curve. This represents—




   (a) A contraction in demand
   (b) An expansion in demand
   (c) An increase in demand
   (d) A decrease in demand.

3. In figure below, new price line $AB_1$ reflects—



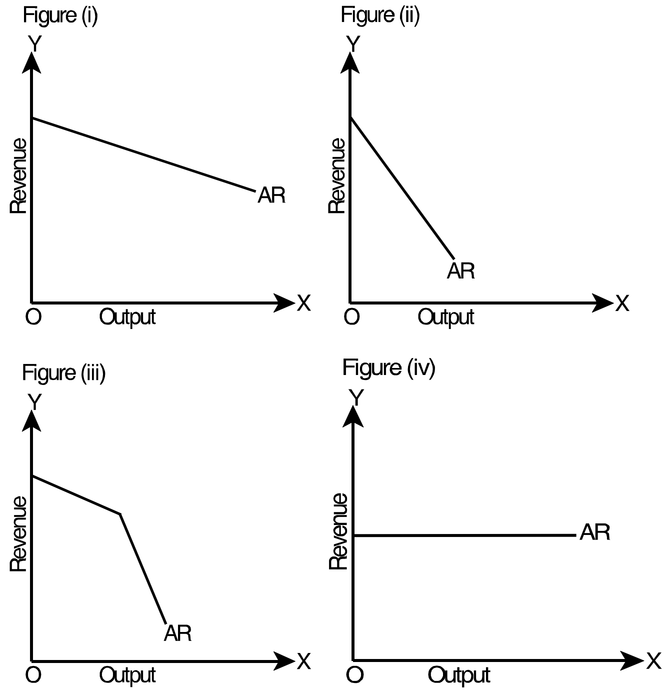

(a) A fall in income of the consumer
(b) A fall in price of commodity — Y
(c) A fall in price of commodity — X
(d) A rise in income of consumer and a simultaneous rise is the prices of both commodities X and Y.

4. Which of the following statements is wrong?
(a) With increase in the level of income, demand for all types of commodities increases
(b) With the increase in the level of income, demand for luxuries and comforts increases
(c) With the increase in level of income, demand for inferior goods falls
(d) With increase in level of income, demand for necessities almost remains unchanged.

5. On a straight line demand curve intercepting both horizontal and vertical axes, elasticity of demand would be equal to unit at the—
(a) Middle point on the curve
(b) Point where the curve forms an intercept with the x-axis
(c) Point where the curve forms an intercept with y-axis
(d) None of the above.

6. With an increase in the supply of commodity, equilibrium price will not fall if:—
   (a) Demand also decreases
   (b) Demand also increases
   (c) Demand increases in the same proportion in which supply has increased
   (d) Demand falls in the same proportion in which supply has increased.
7. Any change in demand will leave the equilibrium quantity unaffected if:—
   (a) Supply increases
   (b) Supply decreases
   (c) Supply curve is perfectly elastic
   (d) Supply curve is perfectly inelastic
8. If with an increase in the price of a commodity, quantity demanded of the commodity rises, it must be a—
   (a) Normal good
   (b) Abnormal good
   (c) Giffen good
   (d) Necessity
9. A firm would be in equilibrium at the level of output where its—
   (a) MR = MC (b) AR = AC
   (c) MR > MC (d) MR < AR
10. Which of the following commodities best represents a monopolistic competitive market?
    (a) Market for motorbikes (b) Market for parlours and saloons
    (c) Metro rail (d) Market for vegetables.
11. In which of the following market structures, a firm is not a price maker—
    (a) Perfect competition (b) Monopoly
    (c) Duopoly (d) Oligopoly
12. In which of the following market structures, a firm in long-run equilibrium earns abnormal profit—
    (a) Perfect competition
    (b) Monopolistic competition
    (c) Monopoly
    (d) None of the above

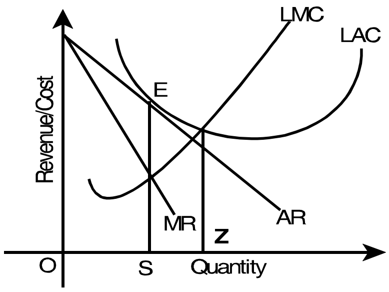
13. In figure below, a perfectly competitive market is represented by figure:—




(a) Figure (i) (b) Figure (ii)
(c) Figure (iii) (d) Figure (iv)

14. For a firm in short-run equilibrium its AR < AC, i.e. it is incurring losses, it will—
    (a) Immediately stop production
    (b) Increase its level of output so that its AR becomes more than MR
    (c) Continue to produce the equilibrium level of output if its AR is either equal to or more than its AVC
    (d) Pray to God and flood the market with its own product and begin to charge very high prices.

15.




Excess capacity for a monopolistic competition firm equals—

(a) OS (b) OZ

(c) SZ (d) None of the above

16. A firm has to take decision about the nature and extent of product differentiation and hence the level of selling expenses in________ market structure.

(a) Monopoly (b) Monopolistic competitive

(c) Perfectly competitive (d) Any of the above.

17. Under monopolistic competition, loss making firms leave the group:

(a) To cover production costs (b) To recover selling costs

(c) To maintain profits (d) To increase market share.

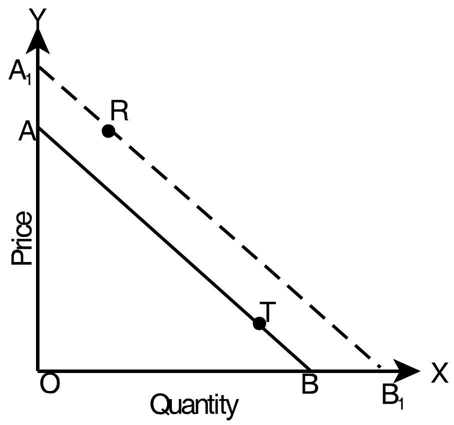
## SOLUTIONS OF DECEMBER 2012

1. (a) **Law of Demand:-** The **amount of demand increases** with a fall in prices and diminishes with a rise in price keeping other factors constant. The law assumes that income, taste, fashion, prices of related goods etc. remains same in a given period.

$$D \propto \frac{1}{P}$$

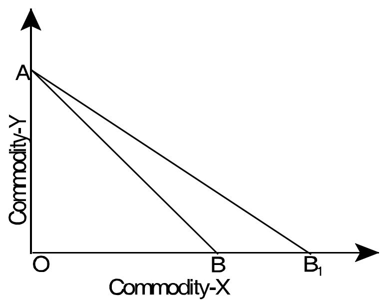
Thus, with a fall in the price of a commodity demand for the commodity increase.

2. (c)




This curve indicates **increase in demand**. Shift in demand curve is due to increase or decrease in demand. Increase in demand is due to change in other factors such as taste, fashion, price of related goods etc.

3. (c)



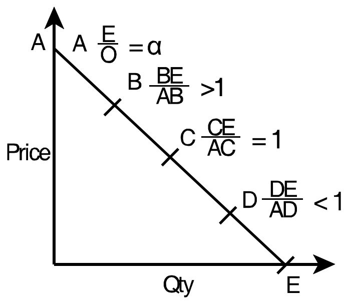

**Fall in price of commodity - X** Increase the quantity demanded of Commodity - X as price is inversely proportional to demand. So Demand or Consumption of Commodity X is increased from OB to OB1.

4. (a) **"With increase in level of income, demand for all types of commodities increases"**- This statement is wrong as there are some goods whose demand decreases with increase in income. Those goods are called as inferior goods.

 **Inferior goods:** Inferior goods are those goods which are cheap and hence consumed by poor people e.g. bajra, jawar etc.

 In case of such goods as the income of the consumer increases, he will demand less of these goods and more of better quality goods.

5. (a)



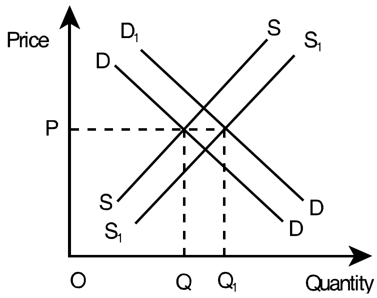

As per the Geometric Method,

$$\sum d = \frac{\text{Lower segment of demand curve}}{\text{Upper segment of demand curve}}$$

∴ At point C i.e. **middle point of straight line demand curve**

$$\sum d = \frac{CE}{AC} = 1$$

6. (c) With an increase in supply of commodity, equilibrium price will not fall if demand increases in the same proportion in which supply has increased.



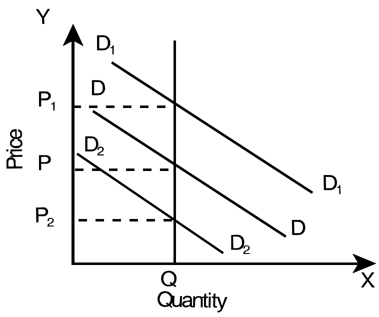

According to the figure above, price does not change if the supply and demand change in same proportion.

Change in quantity supply = $OQ_1$ - OQ

= $QQ_1$

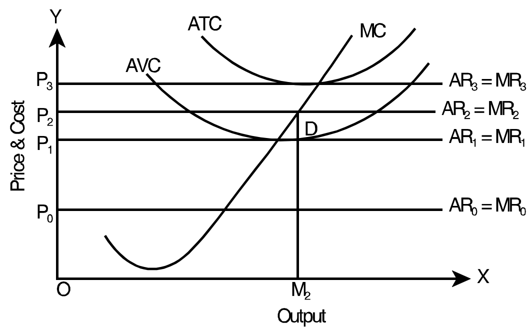
Change in quantity demanded = $QQ_1$

7. (d) Any change in demand will leave the equilibrium quantity unaffected if, **Supply curve is perfectly inelastic**.



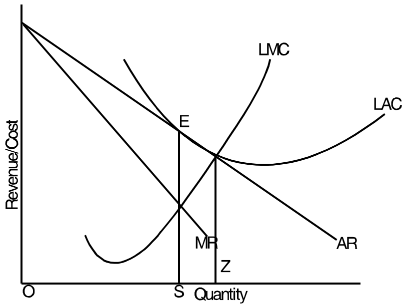

8. (c) With an increase in the price of a commodity, quantity demanded of the commodity rises. It must be a **giffen good** since these are the goods which people continue to buy even at high prices. e.g- bread etc.
9. (a) A firm would be in equilibrium at the level of output. It has to follow two rules.
   (a) MR = MC (Marginal Revenue = Marginal Cost)
   (b) MC = Cuts MR from below.

10. (a) Option (a) is correct market for motorbikes best represented a monopolistic market as there is a market structure in which each seller produces a 'differentiated product'.
11. (a) In the case of **Perfect Competition** firm is not a price maker. Perfect Competition Market is a hypothetical market structure where in every seller takes the market price as the price of his own product, firm are incapable of influencing the market price other by acting singly or in a group.
12. (c) In **monopoly**, a firm in a long run earns abnormal profit. When MR cut MC from below and the Monopolist produces and is able to sell with an extra profit per unit. Moreover this extra profit is not competed away because there is no substitute good in the market and no new firm can enter the market and produce it.
13. (d) Figure (iv) represents the case of perfectly competitive market where AR = MR = MC
In long Run equilibrium, the firm produces 'optimum' output at the least possible average cost. It is the position where the firm is operating under 'Constant returns' to scale consequently its M = AC and at the same time AR = AC so we get AC = AR = MC = MR.
14. (c)




In case of a competitive firm, in short run, if price is equal to $OP_2$ where AR < ATC but exceeds AVC; MR and MC intersects at D; the firm produces $OM_2$. At this stage the firm still incur a loss but less than its fixed cost because it is able to recover a portion of the latter. Thus, if AR < AC, the firm **will continue its production of the equilibrium level of output.**

15. (c)




OS is the quantity produced when AR curve intersect LAC curve at point E. But when long Run Marginal cost is equal to long Run Average cost the OZ Quantity is produced. Due to decrease in the long Run Average cost the capacity to produce is increased. The excess capacity, produced is OZ-OS = SZ.

16. (b) The firm has to take decision about the nature and extent of product differentiation and the level of selling expenses in **Monopolistic competitive** market structure.

**Product differentiation:** A real differentiation refers to the technical feature of the product including its technical life and performance durability, cost of operation and the like. Non technical differentiation may be in the form of brand names, trade mark etc.

Selling Expenses are all those outlay, which are made in order to create or increase its demand. They aim at shifting the demand curve of the advertised product to the right so that buyer should agree to pay more for a given quantity.

These are the features of monopolistic competitive market structure.

17. (a) Under monopolistic competition, no firm can be compelled to operate at a loss. It can always leave the industry so as to **cover its production cost**.

## QUESTIONS OF JUNE 2013

1.

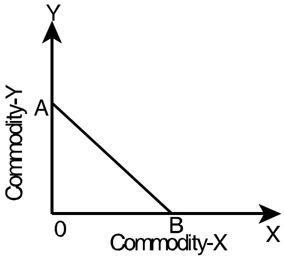


Fig.1

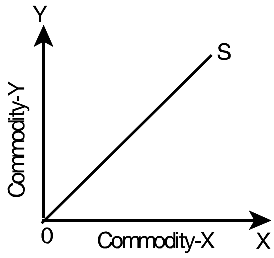


Fig. 2

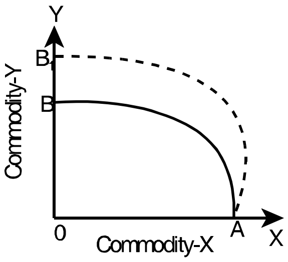


Fig. 3

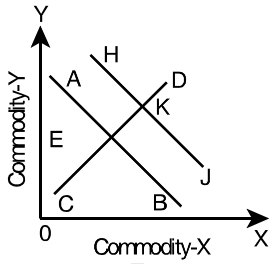


Fig. 4

New advances in technology result in more output of Commodity-Y from given inputs. Which one of the ABOVE figures is best describing this situation? Correct option is:

(a) Figure 1 (b) Figure 2

(c) Figure 3 (d) Figure 4.

2. Match the following:

| | | | |
|---|---|---|---|
| X. | Fall in quantity demanded of a commodity with increase in income | (i) | Complementary goods |
| Y. | A rise in quantity demanded of a commodity due to a fall in its price | (ii) | Decrease in demand |
| Z. | A fall in quantity demanded of a commodity due to a fall in the price of substitute good | (iii) | Expansion in demand |

W. If price of diesel falls, demand for diesel-run cars will increase — (iv) Inferior good

The correct option is:

(a) X (iv); Y (iii); Z (ii); W (i)
(b) X (iii); Y (ii); Z (i); W (iv)
(c) X (ii); Y (i); Z (iii); W (iv)
(d) None of the above.

3. The price of a commodity rises by 5%, its quantity demanded falls by 10%; it implies that a 10% fall in the price of the commodity will result in:
(a) 5% rise in quantity demanded
(b) 10% rise in quantity demanded
(c) 20% rise in quantity demanded
(d) Indeterminate.

4. Marginal Revenue (MR) curve is a straight horizontal line in:
(a) Perfectly competitive market
(b) Monopolistic competitive market
(c) Oligopoly market
(d) Monopoly market.

5. Which of the following figures correctly represents the revenue curves of a monopolistic competitive firm?

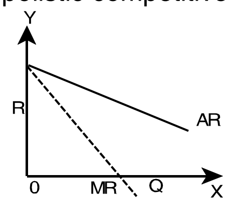


Fig.1

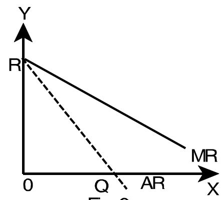


Fig. 2

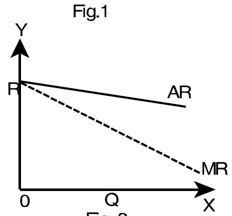


Fig. 3

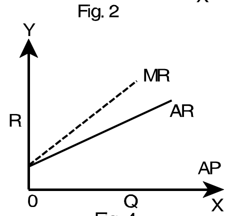


Fig. 4

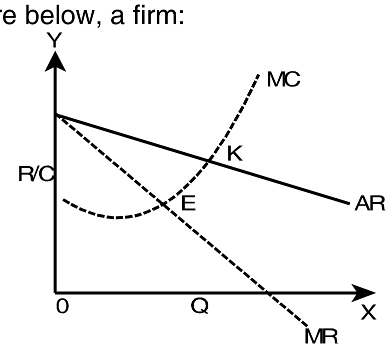
The correct option is:
(a) Figure 1
(b) Figure 2
(c) Figure 3
(d) Figure 4.

6. Which of the following features make a monopolistic competitive firm different from a perfectly competitive firm?
(a) Differentiated products
(b) Number of sellers
(c) Number of buyers
(d) Free entry and exit of the firm.

7. A perfectly competitive firm attains equilibrium at a point where:
(a) Marginal revenue (MR) is equal to marginal cost (MC) and MC curve intersects MR curve from below
(b) MC is equal to MR
(c) MC is falling but is equal to average cost (AC)
(d) MC is constant.

8. A kinked revenue curve best represents:
(a) Monopoly
(b) Dipole
(c) Oligopoly
(d) Monopolistic competition.

9. In the given figure below, a firm:

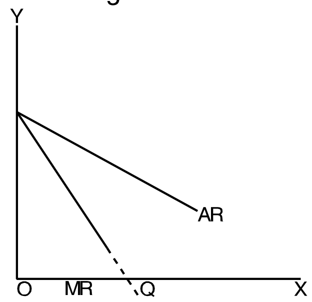


(a) is making abnormal profit in a monopolistic competitive situation
(b) is undergoing losses in a monopoly
(c) is at break-even in a perfectly competitive market
(d) does not know if it is making a profit or is undergoing a loss.

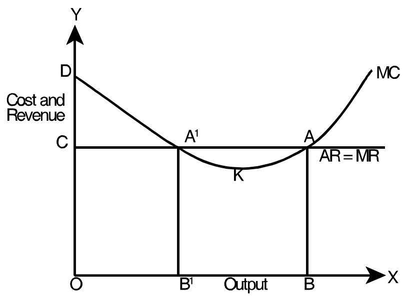
## SOLUTIONS OF JUNE 2013

1. (c) If new resources are available or if the level of technology is improved (E.g. application of high yielding varieties of seeds, better methods of cultivation, better irrigational facilities) then the whole production possibility curve will shift outward. This has been shown as figure 3.
   So, from the above reason we can say that fig. C shows new advances in technology result in more output of commodity Y from given inputs.
2. (a) **Inferior goods** refers to the goods whose quantity demanded falls with the increase in income. Thus, these goods reacts negatively to the change in buyer's income. E.g- maize etc.
   A rise in quantity demanded of a commodity due to a fall in the price is known as **expansion in demand.** It means that with the fall in the price of goods, the consumer moves downwards along the demand curve leading to increase in goods demanded.
   **Decrease in demand** occurs when there is a fall in the quantity demanded of a commodity due to fall in the price of substitute goods.
   **Complimentary goods** are those goods which are consumed together. E.g.- car and diesel etc.
3. (c) Demand of a good is inversely related to the direction of expected change in its price. So when there is change in price of a commodity it leads to change in the demand of a commodity. When price of a good rises by 5%, its quantity demanded falls by 10% i.e. twice.
   Thus, when price of good falls by 10%, its **quantity demanded will rise by 20%**

4. (a) Marginal revenue curve is a straight horizontal line in the perfectly competitive market. Under perfectly competitive market, AR = MR which is a straight horizontal line.




5. (a) The Fig. given as Fig. 1 represent the revenue curve of a monopolistic competitive firm, where AR falls but MR fall faster and become negative. So Fig. 1 represents the revenue curve of a monopolistic competitive firm.
6. (a) The features that make a monopolistic competitive firm different from a perfectly competitive firm is **Differentiated product.** Product differentiation necessitates incurring of selling expenses on the part of firms under market structure of monopolistic competitions.
   So we can say that, only feature that is different for a Monopolistic competitive firm is Differentiated products.
7. (a)



On account of the law of variable proportion, AVC curve is U shaped. Also, the MC represents a change in the TC so that it is related only to the VC and not FC. Since AVC curve is U - shaped, MC curve is also U shaped.

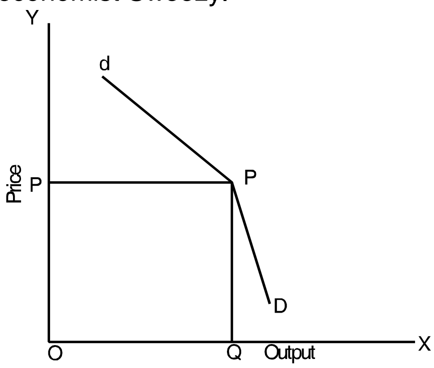
Firm attains its best possible position of maximum profit when its MC curve cuts its MR curve from below. Also, the price p.u. of the product must be able to recover at least AVC. When price exceeds AVC, firm is able to recover a part of its FC.

Thus, in determination of short terms equilibrium of firm, two conditions should be satisfied-

(i) MC must be equal to MR and must cut it from below,

(ii) AR must be equal to exceed AVC.

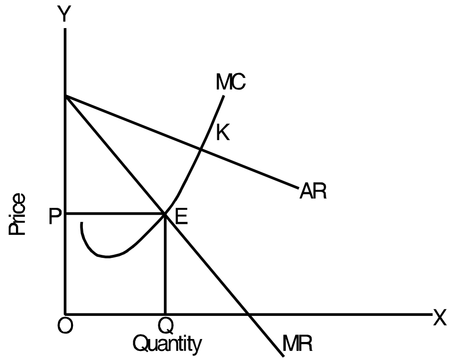
8. (c) It has been observed that in many oligopolistic industries prices remain sticky or inflexible for a long time. They tend to change infrequently, even in the face of declining costs. The most popular explanation given for this is kinked demand curve hypothesis by an American economist Sweezy.




KINKED DEMAND CURVE UNDER OLIGOPOLY

9. (a) There are two conditions for equilibrium under a monopolistic competitive situation:
   (i) MC = MR
   (ii) MC curve must cut MR curve from below.

Fig. shows that MC cuts MR curve at E . At E, the equilibrium price is OP and equilibrium quantity is OQ. Since per unit cost is BQ, per unit super normal profit is AB (or PC) and total super normal profit is APCB.




Thus, the figure shows that the firm **is making abnormal profit in a monopolistic competitive situation.**

## QUESTIONS OF DECEMBER 2013

1. With a fall in the price of a commodity-X demand for commodity-Y also falls. This best represents —
   (a) An exception to the law of demand
   (b) Universal application of the law of supply
   (c) Relationship between two goods that are substitutes for each other
   (d) A market economy where pricing decisions are difficult to make.
2. A functional relationship is given as follows:

   $Q_N = f(P_N)$

   Where $Q_N$ stands for quantity demanded of commodity-N and $P_N$ stands for the price of commodity-N. The law of demand states that other variables remain constant, there is an inverse relationship between price of a commodity and its quantity demanded. It means that if —

(a) The price of a commodity goes up, quantity demanded of its substitute will fall
(b) The demand for a commodity goes up, its price will also go up
(c) The price of a commodity falls, its quantity demanded will rise
(d) None of the above.

3. If the income elasticity co-efficient for demand of a Commodity-X is +0.5; with an increase in the consumer's income, share of income spent on this commodity will—
(a) Rise (b) Fall
(c) Remain same (d) Not be determined.

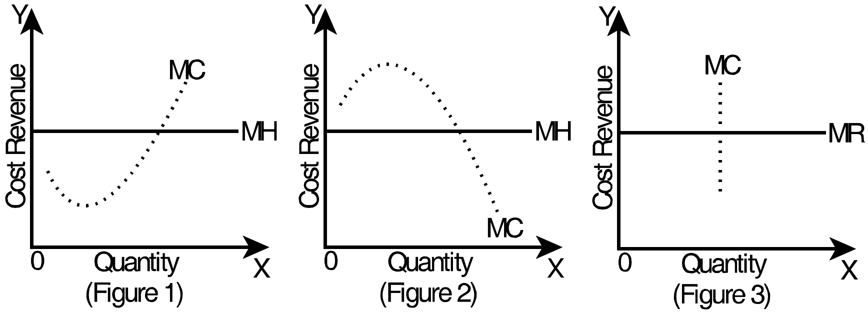
4. Cross elasticity of demand for Commodity-X and Commodity-Y is (-) 0.5.It means that —
(a) Commodity-X and Commodity-Y are not related
(b) An increase in price of Commodity-Y results in a fall in the price of Commodity-X
(c) Commodity-X and Commodity-Y are substitute goods
(d) None of the above.

5. Which of the following type of commodities, normally, do not operate in an oligopoly market structure?
(a) High-brand luxury goods (b) Air-line services
(c) High end beauty parlours (d) Metro rails.

6. Market for mobile phone-sets in India demonstrates the characteristics of a —
(a) Perfectly competitive market (b) Oligopoly
(c) Monopsony (d) Monopoly.

7. Given below is the short-run cost-sheet of a perfectly competitive firm, at equilibrium level of output:
Average variable cost = ₹ 9 per unit
Average fixed cost = ₹ 2 per unit
The firm would be well advised to continue to produce if the per unit market price of the commodity is —
(a) ₹ 6
(b) ₹ 7
(c) ₹ 8
(d) ₹ 10.

8. Which of the following figures best represents the profit being earned by a perfectly competitive firm?




Correct option is —

(a) Figure 1 (b) Figure 2

(c) Figure 3 (d) None of the above.

## SOLUTIONS OF DECEMBER 2013

1. (c) When goods are substitutes, a fall in the price of one commodity, leads to a fall in the Quantity Demanded of its substitutes. For example, if the price of Commodity-X falls, people will try to substitute Y for Commodity-X and demand more of it and less of Commodity -Y.

   Therefore, the answer is **c**.

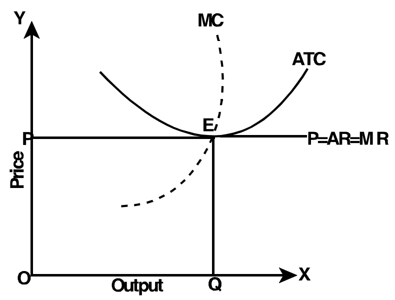
2. (c) The given statement is related to law of demand. According to law of demand other thing being equal, it shows an inverse relationship between price of commodity and its quantity demanded.

   Therefore the **option c** is right.

3. (a) In income elasticity of demand, if the proportion of income spend on a good increases as income increases that leads to increase in the consumer's income.

   Therefore, in case of positive income elasticity (+0.5), with an increase in the consumer's income, share of income spent on this commodity will rise.

4. (d) Cross price elasticity is negative if the change in the price of good y causes a change in the quantity demanded of good X in opposite direction. This occurs in case of complimentary goods.
Since, no option is correct, the answer will be **none of the above**.
5. (c) Oligopoly is described as "competition among the few". Under this form of market, there are few (two to ten) sellers in the market selling homogeneous or differentiated products. Eg. – cold drinks, automobile industry, metro rail, branded goods, airline services etc. However, beauty parlours are not few – they are found in large numbers. Thus, **high end beauty parlours** do not operate in an oligopoly market structure.
6. (a) Perfectly competitive market refers to a market situation in which there are large number of buyers and sellers, selling homogenous product at prevailing price.
Perfect competition market is also known as price taker.
Thus, **market for mobile phone sets in India demonstrates the characteristics of a perfectly competitive market**.
7. (d) In case of short run it is advisable to continue to produce if variable cost is being recovered. Hence, in the given case since variable cost is ₹ 9 so production can be done at under all situation when the unit market price is ₹ 9 or above. So at ₹ 10 p.u. the firm would be well advised to continue as it still has ₹ 1at contribution. (Selling Price ₹ 10 less variable cost ₹ 9)
8. (a)



Amongst the given figures, **Figure1** best represents the profits being earned by a perfectly competitive firm.
When the firm just meets its ATC, it earns normal profits. Here, AR=ATC. The figure shows that MR=MC at E. The equilibrium output is OQ. Since, here AR=ATC or OP=OQ, the firm is just earning normal profits.

## QUESTIONS OF JUNE 2014

1. When ed > 1, it means:
   (a) Perfectly inelastic demand
   (b) Perfectly elastic demand
   (c) Relatively elastic demand
   (d) Relatively inelastic demand
2. When ed < 1, it means:
   (a) Perfectly inelastic demand
   (b) Perfectly elastic demand
   (c) Relatively elastic demand
   (d) Relatively inelastic demand
3. If the price falls by 5%, the quantity supplied, falls by the same 5%. Which type of elasticity is this?
   (a) Unitary Elasticity of Supply
   (b) Unitary Elasticity of Demand
   (c) Relatively Elasticity of Supply
   (d) Relatively Inelasticity of Supply
4. Which type of goods are related to the exceptions to law of demand?
   (a) Giffen Goods
   (b) Substitute Goods
   (c) Complimentary Goods
   (d) Both (a) and (c)

5. When consumers real income increases, price of which type of good falls down?
   (a) Luxurious Goods
   (b) Giffen Goods
   (c) Normal Goods
   (d) Inferior Goods
6. In elasticity of demand, what does elasticity means?
   (a) Eagerness
   (b) Willingness
   (c) Responsiveness
   (d) Both (a) and (b)
7. What is the relationship between Demand and supply?
   (a) Direct Relation
   (b) Inverse Relation
   (c) No relation
   (d) None of these
8. When elasticity of demand is Zero, i.e. ed=0, it is ___________?
   (a) Perfectly Inelastic Demand
   (b) Unitary elastic Demand
   (c) Perfectly elastic Demand
   (d) Inelastic Demand
9. If the demand of blankets increases from 4600 to 5700 and price decreases from 220 to 190. Find elasticity of demand.
   (a) 2.25
   (b) 1.50
   (c) 1.75
   (d) 1.85
10. If the real income of the person rises, then demand of which type of goods increases-
   (a) Normal
   (b) Inferior
   (c) Conspicuous
   (d) none of the above

11. In case of MNC, which goods are not beneficial:
    (a) Demerit goods
    (b) Poor Goods
    (c) Normal Goods
    (d) None of the above
12. __________ goods are the products which the people continue to buy even at high prices due to lack of substitute products-
    (a) Inferior goods
    (b) Normal goods
    (c) Giffen goods
    (d) Luxury goods
13. Under which market system, seller can influence the price to the maximum?
    (a) Perfect competition
    (b) Monopoly
    (c) Monopolistic
    (d) Oligopoly
14. Under which market, price discrimination is not possible?
    (a) Perfect competition
    (b) Monopoly
    (c) Monopolistic
    (d) Oligopoly
15. Which statement is correct under perfect competition market?
    (a) Large number of sellers and buyers
    (b) Large number of sellers and small number of buyers
    (c) Large number of sellers only
    (d) Large number of buyers only.
16. When does the firm gets equilibrium points? OR
    When the firm is said to be in equilibrium?
    (a) MR = MC
    (b) AR = MR
    (c) AR = MC
    (d) Both (a) & (b)

17. “Differentiated product” is the feature of-
    (a) Perfect competitive market
    (b) Monopoly market
    (c) Monopolistic market
    (d) None of the above
18. In which type of market, the firm is the “price taker”.
    (a) Perfect competitive market
    (b) Monopoly Market
    (c) Monopolistic market
    (d) All of the above
19. In monopolistic competition the price policy is-
    (a) Relatively high
    (b) Low
    (c) Moderate
    (d) Very low

## SOLUTIONS OF JUNE 2014

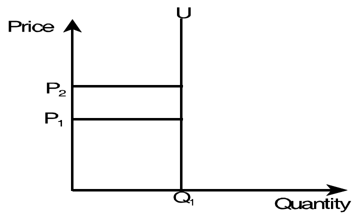
1. (c) When ED > 1 it means relatively elastic ED (Elasticity of Demand) refers to degree of responsiveness of quantity demanded of a good to a change in its price.
2. (d) When the percentage change in demand is less than percentage change in price, ED < 1 which represents the **relatively inelastic demand.**
3. (a) Since the percentage change in quantity supplied and percentage change in price are same that is 5%. It is the case of **unitary elasticity of supply.**
   Ed = $\frac{5\%(q)}{5\%(p)} = 1$
4. (d) The law of demand states that, “other things being constant quantity demanded of a commodity varies inversely with price.

Exceptions to this rule are:

- Giffen goods
- Inferior goods
- Necessaries
- Complementary goods.

Hence, **both (a) and (c)** are the exception to law of demand.

5. (d) When the consumers real income increases, he can shift to better quality goods, and thus the price of **inferior good** falls down.
6. (c) Elasticity refers to the degree of **responsiveness** of quantity demanded of a good to a change in its price.
7. (c) There is no law of demand and supply. They are two separate laws which works Independently of each other. Law of demand and law of supply explains separately the 'plan' of consumer and 'plan' of producer. Thus, it can be said there is **no relation** between demand and supply.
8. (a) When elasticity is Zero it states **perfectly inelastic demand** which means there is a change in price but no change in demand.




9. (c) % change in demand of blankets

$$= \frac{5{,}700 - 4{,}600}{4{,}600} \times 100$$

= 23.91%

% change in price of blankets

$$= \frac{220 - 190}{220} \times 100$$

= 13.64%

elasticity of demand $= \dfrac{23.91}{13.64}$

= 1.75

10. (a) When price falls, consumers real income increases, this induces, him to buy more and hence, there exists an inverse relationship between price and quantity demanded. This happens in case of **normal goods.**
11. (b) MNC mainly produces those goods which are consumed by maximum number of people in the country which are mainly normal goods.
    However, in case of **poor or inferior goods** MNC's are not beneficial as they are consumed by small number of people.
12. (c) **Giffen goods** are the goods which do not follow the law of demand and people continues to buy even at high prices due to lack of substitute products. For example-basic commodity like bread.
13. (b) **Monopoly** market means a single seller and large number of buyers. Monopolist is free to fix a price of his choice, i.e. he is price maker. Thus, it can be said that under this market system, seller can influence the price to maximum because no close substitutes are available.
14. (a) Under **perfect competition** market prices are fixed by the industry. Firms have no control over prices, i.e. firms are price taker while industry is price maker. Thus, in such market price discrimination is not possible.
15. (a) Features of perfect competition market are:
    (a) **Large number of buyer's and seller.**
    (b) Homogeneous products
    (c) Full knowledge of market
    (d) Economic Rationality
    (e) No transportation cost
    (f) Free entry and exit.
    Thus, **option (a)** is correct.
16. (d) A firm is said to be in equilibrium when its profit are maximum, which depends upon cost and revenue of the firm for short term equilibrium which will be when:

(i) MC = MR and MC should cut MR from below

(ii) AR must be equal to or exceed AVC.

Since in this market price is uniform hence AR = MR = P and AR, MR curve is a straight line parallel to X axis. Hence, **both (a) and (b)** are the conditions of equilibrium.

17. (c) Differentiated product is the most important feature of **monopolistic competition market**. This is the act of producing differential goods i.e. close substitute goods which may differ in packing, colour, quality etc.

18. (a) Under **perfect competitive market,** industry decides the prices of the products which are homogeneous is nature. Here the firms are price taker while the industry is the price maker.

19. (b) In monopolistic competitive market due to differentiated products seller are free to choose the price of their product, in order to increase the sales the seller should reduce the price because of presence of close substitutes. Thus, in monopolistic competition, the price policy is **low**.

## QUESTIONS OF DECEMBER 2014

1. When the price of coffee falls, the demand for Tea will?
   (a) Rise
   (b) Fall
   (c) Remains unchanged
   (d) Any of the above
2. Inferior goods have ________and luxury goods have__________ .
   (a) Negative income elasticity, Income elasticity greater than 1
   (b) Income elasticity greater than 1, Negative income elasticity
   (c) Positive income elasticity, negative income elasticity
   (d) Can't say.

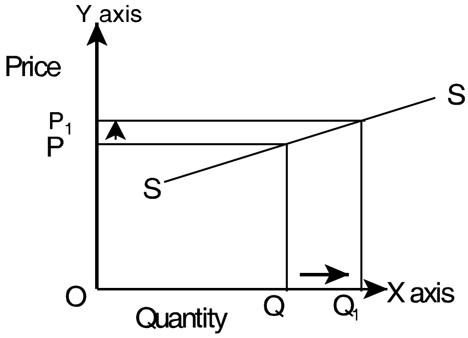
3. Which of the following pair of goods is an example of substitutes?
   (a) Pen and Ink
   (b) Gas and Kerosene
   (c) Shirt and Trousers
   (d) Tea and Sugar
4. On which of the following Law, Law of Demand is based on?
   (a) Total utility
   (b) Diminishing marginal utility
   (c) Equi-marginal utility
   (d) Cardinal utility
5. In which type of price elasticity of supply, a very insignificant change in price leads to infinite change in quantity?
   (a) Relatively elastic
   (b) Perfectly inelastic
   (c) Relatively inelastic
   (d) Perfectly elastic
6. An Oligopoly is a market in which:
   (a) Firms are price takers
   (b) The actions of one seller in the market have no impact on the other seller's profits
   (c) There are only a few sellers, each offering a product similar/dissimilar to the others
   (d) Firms are price giver
7. Which of the following is the difference between perfect competition and monopolistic competition?
   (a) In monopolistic competition, firms produce identical goods, while in perfect competition, firms produce slightly different goods.
   (b) Perfect competition has no barriers to entry, while monopolistic competition does
   (c) In perfect competition firms produce identical goods, while in monopolistic competition, firms produce slightly different goods
   (d) Perfect competition has a large number of small firms, while in monopolistic competition does not.

8. A perfectly competitive firms short run shutdown point is the level of output at which:
   (a) Price equals average fixed costs.
   (b) Price is above the minimum average total cost but below the minimum average fixed cost
   (c) Price equals average total cost
   (d) Price equals the minimum average variable cost
9. In a free market, which of the following will be caused by excess supply for a commodity?
   (a) A fall in the price of commodity
   (b) A rise in the price of commodity
   (c) Either a or b
   (d) Can't say
10. Which of the following is a characteristic of Monopoly?
   (a) Large number of sellers and buyers
   (b) A single seller and large number of buyers
   (c) Large number of sellers and small number of buyers
   (d) Small number of sellers and small number of buyers

## SOLUTIONS OF DECEMBER 2014

1. (b) In a case of substitution effect when the price of a commodity falls, it becomes relatively cheaper than other commodities. It induces consumers to substitute the commodity whose price has fallen for other commodities which have now become relatively expensive. The result is that the total demand for the commodity whose price has fallen increases.
   So, **when the price of coffee falls, the demand for tea will also fall.**
2. (a) Inferior goods have a negative income elasticity of demand. Demand falls as income rises while luxuries have an income elasticity of demand, Ed >1 i.e. The demand rises more than percentage change in income.

3. (b) Substitute goods are goods which, as a result of changed conditions, may replace each other in use or consumption. If the price of a substitute goods, Y increases, the demand for the goods falls and the consumer wants to buy more of X instead.
   So, the **option (b)** is the correct answer i.e. **Gas and Kerosene** are best pair of substitute goods.
4. (b) The law of diminishing marginal utility provides that when a consumer buys additional units of a good, its marginal utility falls. A consumer always compares the marginal utility of a good with the price to be paid for it, the price which he is willing to pay for one additional unit of a good. Conversely, if the price of a goods falls, the consumer is induced to buy more of it. In other words, the price and quantity demanded of a goods moves in opposite directions and the demand curve is negatively sloped.
   Thus, we can say that law of demand is based on **diminishing marginal utility.**
5. (a) Degrees of Price Elasticity:
   (a) **Perfectly elastic:** When there is a change in supply even when there is no change in price. [e = ∞]
   (b) **Perfectly inelastic:** When there is no change in supply even then there is a change in price. [e = 0]
   (c) **Highly elastic:** When percentage change in quantity supplied is more than percentage in price. [e > 1]
   (d) **Highly inelastic:** When percentage change in quantity supplied is less than percentage change in price. [e < 1]
   (e) **Unitary elastic:** When percentage change in quantity supplied is equal to percentage change in price.[e=1]
   So, in price elasticity of supply, a very insignificant change in price leads to infinite change in quantity is a case of relative elastic.




6. (c) Oligopoly is an important form of imperfect competition. It is often described as 'competition among the few'. In other words, when there are few two or ten sellers in a market selling homogeneous or differentiated products, oligopoly is said to exist.

7. (c)

| Perfect Competition | Monopolistic Competition |
|---|---|
| 1. Large number of buyers and sellers, selling homogeneous goods at prevailing price. | 1. Large number of buyers and sellers selling differentiated goods. |
| 2. It is also known as price taker. | 2. It is also known as price-maker. |
| 3. It is characterized by complete absence of rivalry among firms. | 3. Every seller is a monopolist of his differentiated products. |

8. (a) In a short run, a perfectly competitive firm have shut down point when price is equal to average fixed cost. This is a situation in which a firm is not able to earn that much profit to meet out its fixed cost.

9. (a) A fall in the price of commodity causes excess supply for that commodity in a free market. It is directly related with the law of demand, "when the price falls, demand increases and when the price increases, the demand decreases" or in other words the greater the amount to be sold, the lesser must be the price at which it is offered in order that it may find purchasers.

10. (b) Features of Monopoly:
    (a) Single seller and large number of buyers.
    (b) No close substitutes.
        (i) Pure Monopoly
        (ii) Simple Monopoly
    (c) Restriction on entry of new firms.
    (d) Price discrimination.
    (e) Firm/Industry is the price maker.
    (f) Firm and Industry are same.

    So, **option (b)** is the correct answer.

## QUESTIONS OF JUNE 2015

1. How does demand curve moves in case of exception to Law of demand?
   (a) Upward
   (b) Downward
   (c) Positive
   (d) Negative.
2. In Case, Good X and Good Y are substitutes, what will be the impact on Good X for increase in price of Good Y?
   (a) Demand for good X will decrease
   (b) Demand for good X will increase
   (c) Market price of good X will decrease
   (d) Quantity demanded of goods X will increase.
3. In case of two complimentary goods a rise in the price of one commodity will induce:
   (a) An upward shift in demand for the other commodity
   (b) A rise in the price of the other commodity
   (c) No shift in the demand for the other commodity
   (d) A downward shift in demand for the other commodity.

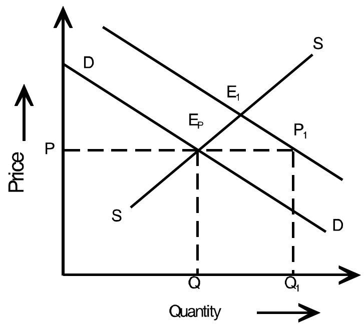
4. A manufacturer supplies goods in such a way that if the price rises by 10%,he is prepared to supply 10% more. This supply is best described as:
   (a) Inelastic
   (b) Unit-inelastic
   (c) Unit-elastic
   (d) Relatively elastic.
5. If 20% change in price of a commodity does not result into any change in the Quantity demanded, which type of price elasticity of demand will be in this case?
   (a) Unitary elastic
   (b) Relatively elastic
   (c) Perfectly elastic
   (d) Perfectly inelastic.
6. Which of the following does not lead to an increase in equilibrium price for a consumer?
   (a) An increase in supply accompanied by a decrease in demand
   (b) A decrease in supply accompanied by an increase in demand
   (c) A decrease in supply without a change in demand
   (d) An increase in demand without a change in supply.
7. In case of monopolistic competition, size of the market for each firm would be ________.
   (a) large
   (b) small
   (c) Infinite
   (d) very large
8. In case of monopoly, capacity utilization of the firm would be _______.
   (a) Minimum
   (b) Sub-optimum
   (c) Optimum
   (d) Not optimum

9. In case of Perfect Competition, number of selling firms would be:
   (a) Large
   (b) Only two
   (c) Varied but not too many
   (d) Single.
10. In a market that is characterised by imperfect competition:
   (a) Firms are price takers
   (b) The actions of one firm in the market never have any impact on the other firms profits
   (c) There is always a large number of firms
   (d) There are at least a few firms that compete with one another.
11. In case of Perfect Competition a firm is a __________.
   (a) Price Controller
   (b) Price taker
   (c) Price maker
   (d) Price creator

## SOLUTIONS OF JUNE 2015

1. (c) Demand curve is negative sloping or downward sloping and major reason is the Law of diminishing Marginal utility. The Law of Equi marginal utility and increased real income. This is according to the law of demand. There are certain exception to the law according to which change in price of goods does not lead to change in quantity demanded in the opposite direction. Therefore, demand curve moves in **positive** direction.
2. (b) One of the factors affecting demand is substitution effect according to which if price of substitute good Y increases the demand for that good falls and the consumer wants to buy more of X instead. Which means **demand of X good increases.** And if price fall of substitute good, consumer increase the demand for that good and will buy less of good X.

3. (d) In case of complementary goods if the price of complementary good Y increases, the demand for that good falls so does the demand of its complement X. In same way fall in price of Y will lead to increase in demand of complementary X.
4. (d) The supply is relatively more elastic when a small change in price cause a great change in quantity demanded.
5. (d) The demand is said to be **perfectly inelastic** when a change in price produces no change in the quantity demanded of a commodity. In such case, quantity demanded remains constant regardless of change in price.
6. (d)




with **increase in demand without a change in supply,** this does not lead to- increase in equilibrium price for a consumer.
7. (b) In case of monopolistic competition size of the market for each firm would be **small.**
8. (b) In case of monopoly, capacity utilization of the firm is **sub optimum.**
9. (a) There are **large** no. of sellers and buyers selling homogenous products in perfect competition.
10. (d) In imperfect competition, **there are at least a few firms that compete with one another.**
11. (b) In perfect competition, firm are **price taker.**

## QUESTIONS OF DECEMBER 2015

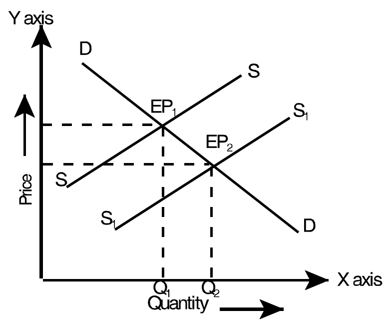
1. What will be the elasticity if there is a change in price and no change in quantity supplied?
   (a) Perfectly inelastic
   (b) Perfectly elastic
   (c) Unitary elastic
   (d) Elastic
2. What would be effect on equilibrium price and equilibrium quantity bought and sold in a free market when there is increase in supply?
   (a) Fall in equilibrium quantity bought and sold and fall in equilibrium price
   (b) Fall in equilibrium price and rise in equilibrium quantity bought and sold
   (c) Rise in equilibrium price and equilibrium quantity bought and sold
   (d) No effect
3. Monopoly is a:
   (a) Price taker
   (b) Price maker
   (c) All of the above
   (d) None of the above
4. Number of firms in a perfect competition:
   (a) Large
   (b) Small
   (c) Medium
   (d) Few
5. In which of the following market, characteristics of product differentiation is observed?
   (a) Monopoly competition
   (b) Monopolistic competition
   (c) Perfect competition
   (d) Both (a) and (c)

6. Which of the following curve represent monopolistic competition?
   (a) Upward
   (b) Downward
   (c) Rising
   (d) No effect
7. Under which of the following forms of market structure does a firm has no control over the price of its product?
   (a) Oligopoly
   (b) Monopolistic competition
   (c) Monopoly
   (d) Perfect competition
8. Shape of AR and MR in a perfect competition:
   (a) Parallel to x-axis
   (b) Horizontal
   (c) Both (a) and (b)
   (d) None of the above
9. Selling expenses in perfect competition is:
   (a) Nil
   (b) Present
   (c) Both (a) and (b)
   (d) None of the above

## SOLUTIONS OF DECEMBER 2015

1. (a) The supply is said to be **perfectly inelastic** when a change in price produces no change in the quantity supplied of a commodity. In such a case quantity supplied remains constant regardless of change in price. The elasticity of supply is said to be zero.

2. (b)




Increase in supply will lead to fall in equilibrium price and rise in equilibrium quantity bought and sold.

3. (b) In case of monopoly, new firms cannot enter the industry. There may be legal barriers, or the producer may own a technology or a naturally occurring substance which others cannot avail of. In the absence of a substitute product, the monopolist is free to fix a price of his choice. So, in case of monopoly, firms are **price maker.**

4. (a) Features of perfect competition:
   (i) Homogeneous product
   (ii) Large number of firms
   (iii) Full knowledge of market
   (iv) Economic rationality
   (v) No transportation cost
   (vi) Free entry and exit

   Thus, option (a) i.e. large number of firms is correct.

5. (b) Differentiated product is the most important feature of monopolistic **competition** market. This is the act of producing differential goods i.e. close substitute goods which may differ in packing, colour, quality etc.

6. (b) In monopolistic, competition is characterized by a large number of sellers. The demand and supply conditions of these sellers are inter-dependent. However, in spite of their large number, no individual seller become a price taker. He has the authority to demand a price

of his choice, though he also considers the demand condition for his product while exercising this authority. In other words, in spite of there being a large number of sellers, the demand curve for the product of an individual seller is downward sloping. Hence, **downward** sloping demand curve represent monopolistic competition.

7. (d) **Perfect competition** market is a hypothetical market structure where every seller takes the market price as the price of his own product, firms are incapable of influencing the market price either by acting singly or in a group.
8. (c) On account of perfect competition, the demand for the product of the firm, is perfectly elastic. The firm can sell all its output at the going price. Accordingly, its AR-curve parallel to X-axis throughout its length and its MR-curve coincides with AR-curve. Thus, **Both (a) & (b)** options are correct.
9. (a) It is assumed that there is no transaction cost to be incurred in perfect competition by buyers and seller in their activities. The price paid by buyer is exactly equal to the price received by seller. There is no resource cost in terms of time or other expenses to be incurred i.e. there are no transaction cost. In particular, a seller has no need to incur any selling expenses.

## QUESTIONS OF JUNE 2016

1. A positive cross elasticity of demand co-efficient indicates that:
   (a) A product is an inferior good
   (b) A product is a normal good
   (c) Two products are substitute goods
   (d) Two products are complementary goods.
2. Which of the following is correct about the negative relationship between price and quantity demanded?
   (a) It applies to most of the goods in the economy
   (b) It is represented by a downward sloping demand curve
   (c) It is referred to as the law of demand
   (d) All are applicable.

3. Ceteris Paribus, which of the following events would cause an upward movement along the supply curve of tomatoes?
   (a) There is an advancement in technology that reduces the cost of production of tomatoes
   (b) The number of sellers of tomatoes increase
   (c) The price of tomatoes rise
   (d) The price of fertilizers decrease and fertilizers is an input in the production of tomatoes.
4. If at a higher price more quantity is demanded, situation can be termed as:
   (a) Exception to law of demand
   (b) Contraction of demand
   (c) Decrease of demand
   (d) None is applicable.
5. In case of normal goods, what will be the income elasticity of demand?
   (a) Infinite
   (b) Zero
   (c) Positive
   (d) Negative.
6. In case of Giffen goods, demand curve will slope:
   (a) Downward to the right
   (b) Upward to the right
   (c) Horizontal
   (d) Vertical.
7. In a free market which of the following will be caused by excess demand for a commodity?
   (a) A fall in the price of commodity
   (b) A rise in the price of commodity
   (c) Either (a) or (b)
   (d) Can't say
8. In case of perfect competition, size of the market for each firm would be:
   (a) Small
   (b) Large
   (c) Not defined
   (d) Infinite

9. In case of monopolistic competition firms have _____ market knowledge.
   (a) Complete
   (b) Incomplete
   (c) Adequate
   (d) Can't say
10. In a perfect competition, a firm has control over_____.
   (a) Price
   (b) Production as well as price
   (c) Production, price and consumer
   (d) None are applicable
11. Which of the following statement is incorrect?
   (a) Firms in a perfectly competitive market are price taker
   (b) It is always beneficial for a firm in the perfectly competitive market to discriminate prices
   (c) Economic laws are less exact than the law of physical science
   (d) Even monopolist can incur losses

## SOLUTIONS OF JUNE 2016

1. (c) Cross price elasticity is positive if the change in price of good Y causes a change in the quantity demanded of good X in the same direction. It is always the case with goods which are substitutes.
2. (d) The law of demand indicates the inverse relationship between the price of the commodity and its quantity demanded in the market. Thus, this emphasize that the conventional demand curve, owing to other things being constant is downward sloping. It is widely applicable to large number of goods with certain exceptions to it.
3. (c) Law of supply states that there exact positive relationship between the price of the product and its quantity supplied, Ceteris Paribus. The supply curve slopes upward from left to right. It means that the supply of a product increase with increase in its price and decreases with decrease in its price.

4. (a) Though **law of demand** is widely applicable to a large number of goods but there are certain exceptions. In case of giffen goods like of cheap or inferior category say, bajra, potatoes etc. the rise in the price compels people to buy more of those products and thus raise the demand. This is known as Giffen Paradox. People continue to buy those products even at high price due to lack of substitute products.
5. (c) Normal goods have a **positive** income elasticity of demand so as consumers' income rise, demand also increase. Normal necessities have an income elasticity of demand between 0 and 1.
6. (b) Giffen goods, in fact, are goods that have upward-sloping demand curve. It is a condition where the rise in price of product compell people to buy more & thus raise the demand. People continue to buy even at high price due to lack of substitute products.
7. (b) In a free market, if there is excess demand of a product then this will tend to rise the **price of the commodity** as the demand is more than supply which will induce the buyer to pay more for the product.
8. (a) In case of perfect competition, size of the market for each firm would be **small** because no firm is in a position to dominate the market and there is free entry and free exit. So no organisation is able to grow up too much.
9. (b) In case of monopolistic competition, firms have lack of perfect knowledge about the market conditions. Selling cost create artificial superiority in the minds of the consumers and becomes very difficult for a consumer to evaluate different products available in the market. Results even if other less priced products are of same quality.
10. (d) Perfect competition market is a hypothetical market structure where every seller takes the market **price** as the price of his own product, firms are incapable of influencing the market price either by acting singly or in a group. Every firm in this industry is "Price taker".
11. (b) **Firms in a perfectly competitive market are price taker.** It can sell any quantity of its own product at an on going price. Every seller takes the market prices as the price of his own product. For it, the demand for its product is therefore perfectly elastic.

## QUESTIONS OF DECEMBER 2016

1. Positive cross-elasticity suggests that goods are ___________ and negative cross elasticity that goods are ___________.
   (a) Normal, inferior (b) Substitutes, inferior
   (c) Substitutes, compliments (d) Normal, compliments.
2. Ceteris Paribus when the price of coffee falls, the demand for tea will?
   (a) Rise (b) Fall
   (c) Remains unchanged (d) None is applicable.
3. In which of the following case more of a good is demanded at less price?
   (a) Decrease of Demand
   (b) Increase of Demand
   (c) Extension of Demand
   (d) Contraction of Demand.
4. Which of the following is a determinant of the price elasticity of supply?
   (a) Time period
   (b) Factor mobility
   (c) Excess capacity
   (d) All are applicable.
5. Which of the following situation does not lead to an increase in equilibrium price of a consumer?
   (a) A decrease in supply without a change in demand
   (b) A decrease in supply accompanied by an increase in demand
   (c) An increase in demand, with a change in supply
   (d) An increase in supply accompanied by a decrease in demand.
6. On which of the following Law, Law of Demand is based:
   (a) Diminishing marginal utility (b) Total utility
   (c) Cardinal utility (d) None is applicable.
7. For a monopoly state of market, which one of the following is not true?
   (a) No market entry for new entrants
   (b) Single seller and large number of buyers
   (c) Homogeneous product
   (d) No close substitute

8. As per Theory of Revenue, if price is denoted by (P) and quantity is denoted by (Q), then the total revenue (TR) will be:
   (a) $P \times Q$
   (b) $P \times P/Q$
   (c) P/Q
   (d) QP
9. A firm encounters its shut down point when:
   (a) Average cost equals price at the profit maximizing level of output
   (b) Average variable cost equal price at the profit maximizing level of output
   (c) No connection with cost and price
   (d) Average fixed cost equals price at the profit maximizing level of output
10. Which of the following is not an example of Product differentiation?
   (a) An advice help-line
   (b) A customer-care department
   (c) Advertising which stresses that the product is of higher quality
   (d) 2 for 1 offer
11. The general term for market structures that fall somewhere in-between monopoly and perfect competition is:
   (a) Monopolistically competitive markets
   (b) Incomplete markets
   (c) Oligopoly markets
   (d) Imperfectly competitive markets

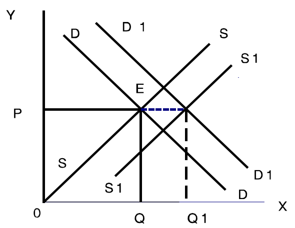
## SOLUTIONS OF DECEMBER 2016

1. (c) The change in the demand of good 'X' in response to change in price of good 'Y' is called cross price elasticity:

   Cross price elasticity is positive if the change in price of good 'Y' causes a substantial change in quantity demanded of good 'X' in same direction. It is case of substitute goods.

Cross price elasticity is negative if the change in the price of good 'Y' causes a change in the quantity demanded of good 'X' in opposite direction. It is the case of **Complementary Goods**.

2. (b) Substitute goods are those goods which can be used in place of one another.
   For example – Tea and coffee.
   If the price of coffee falls, the demand of coffee will rise and thus, the demand of its substitute tea will **fall**.
3. (c) An **extension of demand** takes place when there is increase in quantity demanded due to fall in price. Extension in demand causes upward movement on the same demand curve.
4. (d) Determinants of price elasticity of supply:
   – Time period
   – Ability to store output
   – Factor mobility
   – Cost relationships
   – Excess supply.
5. (c)




**An increase in supply accompanied by an increase in demand** does not lead to an increase in equilibrium price of consumer.

6. (a) According to law of **DMU**, when a consumer buys additional units of a good, its marginal utility falls. A consumer always compares the marginal utility of a good with the price to be paid for it, the price which he is willing to pay for additional unit of a good falls. Conversely, if the price of a good falls, the consumer is induced to buy more of it. Thus, law of demand is satisfied as price and quantity demanded move in opposite directions.
7. (c) Characteristics of a monopoly market:
   (i) Restricted entry
   (ii) Single seller
   (iii) Large no. of buyers
   (iv) No close substitute of goods sold
   (v) Price Discrimination
8. (a) Total Revenue represents total sales proceeds of the firm and is equal to per unit price multiplied by the quantity sold.
   **Total Revenue = Price per unit × Quantity sold**
9. (d) A firm incurs a shut down point when **average fixed cost equals price at the profit maximizing level of output**.
10. (c) Product differentiation is one of the main features of Monopolistic Competition which mean differentiating your own product from that of competitor.
   Advertising is a type of paid advertisement which is done intentionally and every producer proclaim their product to be best. Thus, it is not an example of product differentiation.
11. (d) The general term for Market Structure that fall somewhere between monopoly and perfect competition is **Imperfectly Competitive Market**.

## QUESTIONS OF JUNE 2017

1. If price of milk falls then what will be the effect on the demand of milk?
   (a) Increase
   (b) Decrease
   (c) Both (a) & (b)
   (d) None of these
2. When ed >1, it means:
   (a) Perfectly inelastic
   (b) Perfectly elastic
   (c) Relatively elastic
   (d) Relatively inelastic
3. When change in quantity is less than the change in the price:
   (a) Relative elastic
   (b) Relative inelastic
   (c) Perfectly elastic
   (d) None of these
4. Education is:
   (a) merit goods
   (b) specific goods
   (c) both
   (d) none of the above
5. In monopoly, selling expenses are:
   (a) NIL
   (b) High
   (c) Very High
   (d) Relatively High
6. Price discrimination is a property of which of the following market:
   (a) Monopoly
   (b) Monopolistic
   (c) Perfect
   (d) Oligopoly

7. Under which market selling cost is NIL?
   (a) Perfect competition
   (b) Monopoly
   (c) Monopolistic Competition
   (d) All are applicable
8. Which of the following is not a feature of perfect competition?
   (a) Large no. of buyer
   (b) Homogeneous products
   (c) Both (a) & (b)
   (d) None of the above
9. Which of the following is not the component of the market?
   (a) Buyer
   (b) Seller
   (c) Price
   (d) A firm

## SOLUTIONS OF JUNE 2017

1. (a) With a change in the price of the good, the consumer changes the quantity purchased by him. Normally, the consumer buys more of a good when its price falls and reduces the quantity when its price **increases**. The law indicates the inverse relation between the price of a commodity and its quantity demanded in the market. Thus, **option (a)** is correct.
2. (c) The demand is **relatively more elastic** when a small change in price causes a greater change in quantity demanded. In such a case a proportionate change in price of a commodity causes more than proportionate change in quantity demanded.

   **For example:** If price changes by 10% the quantity demanded of the commodity changes by more than 10%. The demand curve in such a situation is relatively flatter. Numerically, elasticity of demand is said to be greater than 1. (Ed > 1)

3. (b) **Relatively inelastic demand:** It is a situation where a greater change in price leads to smaller change in quantity demanded. The demand is said to be **relatively inelastic** when a proportionate change in price is greater than the proportionate change in quantity demanded.
   **For example:** If price falls by 20% quantity demanded rises by less than 20%. The demand curve in such a case is relatively steeper. Numerically, elasticity of demand is said to be less than 1. (Ed < 1). Hence, **option (b)** is correct.
4. (a) **Merit goods** because services (such as education) provided free for the benefit of the entire society by a government, because they would be under provided if left to the market forces or private enterprise.
5. (d) The term monopoly means a single seller. In economics, this term refers to a firm the product of which has no close substitute in the market. It is, in that sense, a single firm industry. Moreover, irrespective of the profit income of the existing producer firm, new firms cannot enter the industry. Hurdles to their entry may be on account of various reasons. There may be legal barriers, or the producer may own a technology or a naturally occurring substance which others cannot avail of. It is also possible that the size of the market may be too small and no new firm may find it economically worthwhile to enter it. Hence, **option (d)** is correct.
6. (b) The Act of charging different prices from different buyers of the same good is called price discrimination.
   A monopoly performing price discrimination is called discriminating monopoly.
7. (a) **Perfect competition** is also characterized by no Transportation Cost. It is assumed that there is no transaction cost to be incurred by buyers and sellers in their activities. The price paid by a buyer is exactly equal to the price received by the seller. There is no resource cost in terms of time or other expenses to be incurred i.e. there are no transaction costs. In particular, a seller has no need to incur any selling expenses (say, in the form of advertisements) because his product is not differentiated from the products supplied by other sellers.

8. (d) Perfect Competition Market is a hypothetical market structure where in every seller takes the market prices as the price of his own product, firms are incapable of influencing the market price either by acting singly or in a group. It is characterized by large number of buyers/sellers, homogeneous products, free entry & exit, no transportation cost, full knowledge of market and economic rationality.
9. (d) **A market has the following basic components:**

   **Buyers:** There should be buyers of the product. If a country consists of people who are very poor, there can hardly be market for luxuries like cars, vcr etc.

   **Seller:** A commodity should be offered for sale in the market. Otherwise there is no question of buying the commodity. Therefore, existence of sellers is a necessity for any market.

   **Contact:** Buyers and sellers should have close contact with each other.

   **Price:** There should be a price for the commodity. The exchange of commodities between buyers and sellers occurs at a particular price which is mutually agreeable to both the buyers and sellers.

   Therefore option (d) **A firm** is not the component of the market.

## QUESTIONS OF DECEMBER 2017

1. What will happen in the rice market if buyers are expecting higher rice prices in the near future?
   (a) The demand for rice will decrease at present
   (b) The demand for rice will increase at present
   (c) The demand for rice will be unaffected
   (d) The supply of rice will increase
2. In Demand theory, what is the relationship between price and quantity?
   (a) Relative
   (b) Inverse
   (c) Direct
   (d) Positive

3. If Ram always spends 15 percent of his income on food, then which of the following will be the income elasticity of demand for food?
   (a) 1.15
   (b) 1
   (c) 1.5
   (d) 0.15
4. In response to which of the following factors, price elasticity of supply indicates the change in quantity supplied?
   (a) Demand
   (b) State of technology
   (c) Costs of production
   (d) Price
5. In case of two complementary goods, a rise in the price of one commodity will induce:
   (a) No shift in the demand for the other commodity
   (b) A rise in the price of the other commodity
   (c) An upward shift in demand for the other commodity
   (d) A downward shift in demand for the other commodity
6. In a market that is characterized by imperfect competition (except monopoly):
   (a) There is always a large number of firms
   (b) The actions of one firm in the market never have any impact on the other firms profits
   (c) Firms are price takers
   (d) There are at least a few firms that compete with one another.
7. Which of the following is common between monopolistic competition and monopoly?
   (a) Strong Barriers to entry
   (b) The Strategy is decided according to price
   (c) A downward sloping demand curve
   (d) A large number of firms.

8. Which of the following is not a characteristic of monopoly?
   (a) The firm produces a unique product
   (b) The firm is a price taker
   (c) There is a single firm
   (d) There are strong barriers to entry.

## SOLUTIONS OF DECEMBER 2017

1. (b) The current **demand of rice will increase** if buyers are expecting rise in rice prices in near future.
2. (b) There is an **Inverse** Relationship between the price and quantity demanded.
3. (d) Let Income be 100
   Income spend on food = 15
   Income increased by 10% (suppose)
   Income spended = 16.5
   $\frac{\text{Change in Income Spended}}{\text{Change in Income}} = \frac{16.5-15}{110-110} = \frac{1.5}{10} = 0.15$
4. (d) **Price** Elasticity of supply indicate change in quantity supplied with reference to change in price.
5. (c) In case of complimentary good, rise in price of one commodity lead to increase in quantity demanded of other good. Leading to which there is an **upward shift in demand curve.**
6. (d) In imperfect competition, **there are few firms that compete with one another.** They are price maker and there actions affect other firms.
7. (c) Both Monopoly and Monopolistic type of competition have **Downward Sloping Demand Curve.**
8. (b) The Firm is Monopoly is a Price Market not a price taker.

## QUESTIONS OF JUNE 2018

1. Match the following:
   X. Fall in quantity demanded of a commodity with increase in income
      (i) Complementary goods is
   Y. A rise in quantity demanded of a commodity due to a fall in its price
      (ii) Decrease in demand
   Z. A fall in quantity demanded of a commodity due to a fall in the price of substitute goods
      (iii) Expansion in demand
   W. If price of diesel falls, demand for diesel-run cars will increase
      (iv) Inferior good.

   The correct option is:
   (a) X (iv), Y (iii), Z (ii), W (i)
   (b) X (iii), Y (ii), Z (i), W (iv)
   (c) X (ii), Y (i), Z (iii), W (iv)
   (d) None of the above.
2. The price of a commodity rises by 5%, its quantity demanded falls by 10%. It implies that a 10% fall in the price of the commodity will result in:
   (a) 5% rise in quantity demanded
   (b) 10% rise in quantity demanded
   (c) 20% rise in quantity demanded
   (d) Indeterminate
3. Marginal Revenue (MR) Curve is a straight horizontal line in:
   (a) Perfectly Competitive Market
   (b) Monopolistic Competitive Market
   (c) Oligopoly Market
   (d) Monopoly Market

4. Which of the following figures correctly represents the revenue curves of a monopolistic competitive firm?

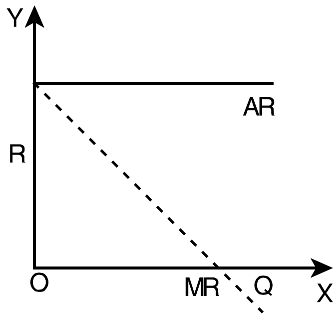



Fig - 1

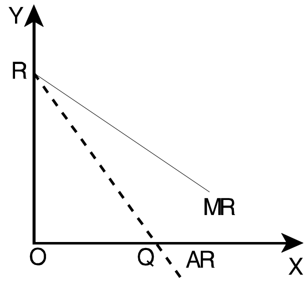



Fig - 2

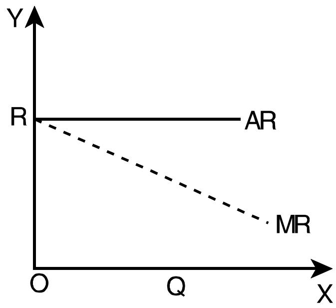



Fig - 3

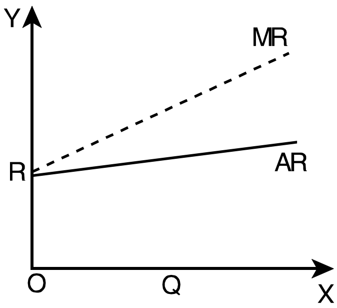



Fig - 4

The Correct option is:

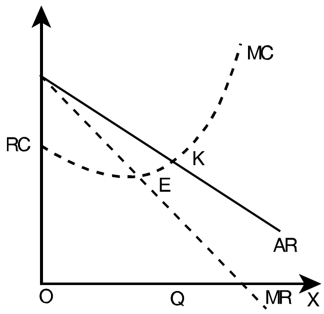
(a) Figure 1

(b) Figure 2

(c) Figure 3

(d) Figure 4

5. Which of the following features makes monopolistic competitive firm different form a perfectly competitive firm?
   (a) Differentiated products
   (b) Number of sellers
   (c) Number of buyers
   (d) Free entry and exit of the firm
6. A perfectly competitive firm attains equilibrium at a point where:
   (a) Marginal Revenue (MR) is equal to Marginal Cost (MC) and (MC) Curve intersect' x MR Curve from below
   (b) MC is equal to MR
   (c) MC is falling out and is equal to average cost (AC)
   (d) MC is constant
7. A Kinked demand curve best represents:
   (a) Monopoly
   (b) Dipole
   (c) Oligopoly
   (d) Monopolistic competition
8. In the given figure below, a firm:




   (a) is making ab-normal profit in a monopolistic competitive situation
   (b) is undergoing losses in a monopoly
   (c) is breaking-even in a perfectly competitive market
   (d) Does not know if it is making a profit or is undergoing a loss.

## SOLUTIONS OF JUNE 2018

1. (a) Inferior good is a type of good for which quantity demanded fall with increase in income.
   Expansion of demand means rise in quantity demanded due to fall in its price. All in quantity demanded due to decrease in fall in its price of substitutes goods is decrease in demand. If price of diesel falls, demand for diesel run will increase are complementary goods.
2. (c) Demand of good is inversely related to the direction of expected change in its price. So when there is change in price of a commodity it leads to change in the demand of a commodity. When price of a good rises by 5%, its quantity demanded falls by 10% i.e. twice. Thus, when price of good falls by 10%, its **quantity demanded will rise by 20%.**
3. (a) In perfectly competitive market, marginal revenue curve is straight horizontal line.
4. (c) Figure - 3 represents the revenue curve of monopolistic competitive firm.
5. (a) Monopolistic market is different from perfectly competitive market in way of differentiated products.
6. (b) When marginal cost is equal to marginal revenue then perfectly competitive firm attains equilibrium at a point.
7. (c) A Kinked demand curve is best curve that/which represents oligopoly.
8. (a) When MC Curve Cuts MR, then monopolist firm is making abnormal profits.

## QUESTIONS OF DECEMBER 2018

1. If two goods are perfect substitute for each other, cross electricity is:
   (a) Negative
   (b) Positive
   (c) Not defined
   (d) None of the above

2. When the government curbs(restrain) the supply of certain commodities, the supply of such commodity will be:
   (a) Increase
   (b) Decrease
   (c) either (a) or (b)
   (d) neither (a) nor (b)
3. There is a direct relationship between, as per law of supply:
   (a) Relationship between price and demand
   (b) Relationship between price and supply
   (c) Relationship between quantity demanded and price
   (d) Relationship between price and quantity supplied
4. Greater change in price leads to smaller change in quantity demanded; reflect that demand is?
   (a) Relatively Elastic
   (b) Relatively Inelastic
   (c) either (a) or (b)
   (d) Neither (a) nor (b)
5. TR is _____________ MR is Zero.
   (a) Maximum
   (b) Minimum
   (c) Zero
   (d) None of the above
6. Monopolist is a:
   (a) Price Taker
   (b) Price Dictator
   (c) Price Maker
   (d) Price Motivation
7. In Monopolistic Competition, size of the market is:
   (a) Small
   (b) Large
   (c) Very Small
   (d) All of these

8. In which competition, an industry is dominated by a few firms?
   (a) Monopsony
   (b) Monopoly
   (c) Perfect Competition
   (d) Oligopoly

## SOLUTIONS OF DECEMBER 2018

1. (b) If two goods are perfect substitute for each other, then cross elasticity is Positive Infinity.
2. (b) If supply of any commodity curbed or restrained by the government policies, then supply of such commodity will decrease.
3. (d) As per law of supply, there is a direct relationship between price and quantity supplied.
4. (b) Relatively Inelastic demand leads to greater change in price but smaller change in quantity demanded.
5. (a) Total Revenue is maximum when marginal revenue is zero.
6. (c) Monopolist is a price maker because he is the single seller of its product.
7. (a) Size of market in monopolistic competition is small.
8. (d) In oligopoly, an industry is dominated by few firms.

## QUESTIONS OF JUNE 2019

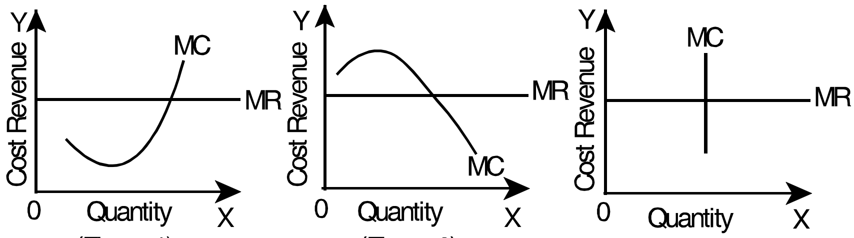
1. With a fall in the price of a commodity - x demand for commodity - y also falls. This best represents:
   (a) An exception to the law of demand
   (b) Universal application of the law of supply
   (c) Relationship between two goods that are substitutes for each other
   (d) A market economy where pricing decisions are difficult to make.

2. A Functional relationship is given as follows:

$$Q_N = F(P_N)$$

Where $Q_N$ Stands for quantity demanded of commodity - N and $P_N$ Stands for the price of commodity- N. The Law of demand states that other variables remain constant, there is an inverse relationship between price of a commodity and its quantity demanded. It means that if:
   (a) The price of a commodity goes up, quantity demanded of its substitute will fall
   (b) The demand for a commodity goes up, its price will also go up
   (c) The price of a commodity falls, its quantity demanded will rise
   (d) None of the above
3. If the Income elasticity co-efficient for demand of a commodity-X is + 0.5; with an increase in the consumer's income share of income spent on this commodity will:
   (a) Rise
   (b) Fall
   (c) Remain same
   (d) Not be determined
4. Cross elasticity of demand for commodity-x and commodity-y is (-) 0.5. it means that:
   (a) Commodity-X and Commodity-Y are not related
   (b) An increase in the price of Commodity-Y result in the fall in the price of Commodity-X
   (c) Commodity-X and Commodity-Y are substitute goods
   (d) None of the above
5. Which of the following type of commodities, normally do not operate in an Oligopoly market Structure?
   (a) High-brand Luxury goods
   (b) Air-line Services
   (c) High end beauty parlors
   (d) Metro rails

6. Market for mobile phone-sets in India demonstrates the characteristics of a:
   (a) Perfectly Competitive Market
   (b) Oligopoly
   (c) Monopsony
   (d) Monopoly
7. Given below is the Short-run Cost-sheet of a perfectly competitive firm, at equilibrium level of output:
   Average Variable Cost = ₹ 9 per unit
   Average Fixed Cost = ₹ 2 per unit
   The firm would be well advised to continue to produce if the per unit market price of the commodity is:
   (a) 6
   (b) 7
   (c) 8
   (d) 10
8. Which of the following figures best represents the profit being earned by a perfectly competitive firm?



(Figure 1) (Figure 2) (Figure 3)

   Correct option is:
   (a) Figure - 1
   (b) Figure - 2
   (c) Figure - 3
   (d) Note of the above

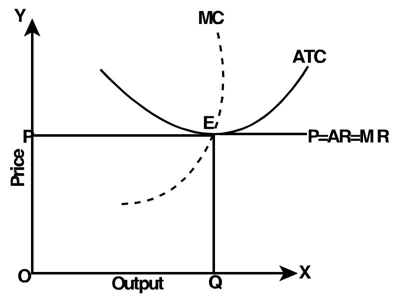
## SOLUTIONS OF JUNE 2019

1. (c) The relationship between the two goods that are substitutes for each other due to the effect of cross price elasticity and substitute price and demand analysis. As in case price of good x falls therefore its demand will rise (x) and hence demand for good y will fall and so the statement says.
2. (c) If the price of a commodity falls other factors remaining constant it will affect the quantity demanded of that commodity and thus, it will rise.
3. (a) The income spent on the commodity will rise as the income of the consumer rises because income elasticity coefficient i.e. + 0.5 can be adjusted there if.
4. (c) Commodity X and commodity Y are substitutes as the negativity in the cross elasticity shows the relationship between two goods that are substitutes of each other.
5. (c) Oligopoly is described as 'competition among the few, under this form of market, there are few (2 to 10) sellers in the market selling homogeneous or differentiated products, cold drinks, automobile industries, metro branded goods etc. however, beauty parlors are not few. They are found in large numbers.

   Thus, high end beauty parlors do not operate in an oligopoly market structure.
6. (a) Perfectly competitive market refers to a market situation in which there are large no. of buyers and sellers, selling homogeneous product at prevailing price. Perfect competition market is also known as price taker.

   Thus, market for mobile phones sets in India demonstrates the characteristics of a perfectly competitive market.
7. (d) In case of short run, it is advisable to continue to produce if variable cost is being recovered. Hence, in the given case since variable cost is ₹ 9 so production can be done under all situations when the unit market price is ₹ 9 or above. So that @ ₹ 10 per unit the firm would be well advised to continue, as it still has ₹ 1 as contribution, (SP ₹ 10 less variable cost ₹ 9)

8. (a)




Amongst the given figures, figure 1 best represents the profits being earned by a perfectly competitive market / firm. When the firm just meets at its ATC, it earns normal profits. Here, AR = ATC. The figure shows that MR = MC at E. The equilibrium output is OQ since, here AR - ATC or OP = OQ the firm is just earning normal profits.

## QUESTIONS OF DECEMBER 2019

1. The withdrawal of the State from an industry or sector, partially or fully:
   (a) Liberalization
   (b) Privatization
   (c) Globalization
   (d) All of the above
2. Income Elasticity of Demand for luxuries items:
   (a) Between 0 to 1
   (b) Positive greater than 1
   (c) Positive between 0 to 1
   (d) Both 'b' and 'c'
3. Relative Elastic Demand is:
   (a) Ed = 0
   (b) Ed > 1
   (c) Ed < 1
   (d) Ed ∞

4. Theories of consumer behaviour are:
   (i) Cardinal Utility analysis
   (ii) Ordinal Utility analysis
   (iii) Marginal Utility analysis
   (iv) Revealed Preference analysis
   (a) Both (i) and (ii)
   (b) (i), (ii) and (iv)
   (c) (i), (ii), (iii) and (iv)
   (d) (iii) and (iv)
5. What are the reception of law of diminishing Marginal Utility?
   (a) Reading Book
   (b) Miser
   (c) Hobbies
   (d) All of these
6. Consumer sovereignty shown in which market?
   (a) Mixed Market
   (b) Socialist Market
   (c) Capitalistic Market
   (d) None
7. Total Expenditure Method is given by:
   (a) Adam Smith
   (b) Peter F. Drucker
   (c) Henry Fayol
   (d) Marshall
8. For which type of market, branded items are more accessible:
   (a) Oligopoly
   (b) Perfect Competition
   (c) Imperfect Competition
   (d) Monopoly
9. Under which market condition the AR and MR coincide each other:
   (a) Oligopoly
   (b) Monopoly
   (c) Perfect Competition
   (d) Monopsony

10. What is a 'break-even' point?
    (a) Profit and Loss
    (b) Revenue and Expense
    (c) Both (a) and (b)
    (d) None
11. Equilibrium condition for Monopoly:
    (a) MC cut MR from below where MR = ML
    (b) MR = MC
    (c) AR = AL
    (d) None
12. Monopoly Market considered as:
    (a) Price taker
    (b) Price maker
    (c) Both 'a' and 'b'
    (d) None

## SOLUTIONS OF DECEMBER 2019

1. (b) Privatisation means withdrawal of state from an industry or sector, partially or fully. Another dimension of privatisation is opening up of industry that has been reserved for public sector to private sector. It has become a universal trend.
2. (b) Income elasticity of demand refers to degree of responsiveness of change in quantity demanded of commodity to change in income of consumer. There is a direct relationship between income and demand for commodity of consumer. Here, elasticity of luxuries is greater than 1 (e.d > 1) because consumer will prefer necessities to luxuries with rise in price of luxury goods.
3. (b) The demand is relatively more elastic when the percentage change in quantity demanded is more than the percentage change in price of commodity i.e. ($E_d > 1$).

4. (a) Theories of consumer behaviour are defined in cardinal utility approach and ordinal utility approach which states how consumer compares the utility for a good with the price he has to pay for it.
5. (d) According to law of diminishing marginal, utility, other things being equal, marginal utility of goods falls as a individual consumer from unit of commodity in a given period of time. In the present case, the three activities are exception because here the consumption of commodity is increasing marginal utility for consumer.
6. (c) Consumer sovereignty in production refers to the controlling power of consumers, versus the holder of scarce resources, in what final products should be produced from these resources. Hence, consumer sovereignty is in capitalistic society where factor of production is owned by private individuals.
7. (d) Total expenditure method was formulated by Alfred Marshall. The elasticity of demand can be measured on the basis of change in total expenditure in response to change in its price.
   Total expenditure = Price × Quantity demanded
8. (c) The branded items are more accessible in imperfect competition market i.e. Monopoly. Monopolistic competition, Oligopoly market because in case of perfect competition market seller are required to sell the homogenous products at same price.
9. (c) In case of perfect competition, AR and MR coincide each other. Every firm under perfect competition is a price taker, that are required to sell each commodity at same price therefore, (AR = Price). The sellers, also sell the additional commodity at that fixed price therefore, AR = MR = Price.
10. (a) 'Break even point' in economics means the point at which the total cost = total revenue i.e. 'even'. There is no net loss or gain and one has 'break even' though opportunity cost have been paid and capital has received the risk adjusted, expected return.

11. (a) In case of monopoly firm, the equilibrium is achieved when marginal cost is equal to Marginal Revenue Curve at that point where 'Marginal Cost Curve cut the Marginal Revenue Curve from below because, at that point firm earns maximum profit.
12. (b) Monopoly Market is considered as 'price maker, because these firms are having the market power. They are having the power to influence the price of goods and services with a change in its price of commodity. The firm having market power are 'price makers.'

## QUESTIONS OF AUGUST 2020

1. When quantity supplied of a commodity is more than its quantity demanded, the most common outcome is competition among?
   (a) Buyers leading to rise in price
   (b) Sellers leading to fall in price
   (c) Buyers leading to fall in price
   (d) Sellers leading to rise in price.
2. During Diwali festive season, when airlines in India raise prices, if the Indian Railways were to reduce their ticket prices and run additional passenger trains, what would have happened, assuring that rail travel is a substitute to air travel?
   (a) The demand curve for airline tickets should shift leftward
   (b) The supply curve for airline tickets should shift leftward
   (c) The demand curve for airline tickets should shift rightward
   (d) The supply curve for airline tickets should shift rightward
3. When there is a 10% increase in price of movie tickets, aggregate supply increases by 8%. What is the relationship between supply and price of movie tickets?
   (a) Supply is price inelastic
   (b) Supply is perfectly elastic
   (c) Supply is price elastic
   (d) Supply is perfectly inelastic

4. To classify manufacturing sector enterprises in to micro, small and medium the Government of India measures the size of business units in terms of:
   (a) Electricity consumption for business activities during a given year
   (b) Average number of persons employed during a given year
   (c) Investment in plant and machinery
   (d) Sales during a given year
5. In the long run, a firm in a perfectly competitive industry earns:
   (a) nil profit
   (b) normal profit
   (c) super normal profit
   (d) between 9% and 12% annual profit on capital employed

## SOLUTIONS OF AUGUST 2020

1. (b) When quantity supplied is more than quantity demanded, there is excess of supply. Price will fall because sellers need to sell their supply. Whenever there is excess in supply or demand; market forces work to create equilibrium.
2. (a) The demand curve for airline tickets should shift leftward as the price of the airlines tickets has been increased and on the other side the price of the rail tickets decreases. So the demand for train will increase and demand for airline tickets will decrease.
3. (c) Supply is price elastic because the given percentage change in price is causing a smaller percentage change in quantity supplied or demanded so it is Relatively Elastic.
4. (d) "Sales during a year" is used to classify manufacturing sector Enterprises into micro small and medium Enterprises.
5. (b) In long run, a firm in a perfectly competitive industry earns normal profit because, there is freedom of entry and exit of firms so all firms can earn only normal profits.

## QUESTIONS OF NOVEMBER 2020

1. In India, which reform policies led to the establishment of private sector banks, both Indian and foreign?
   (a) Financial sector reforms
   (b) Industrial sector reforms
   (c) Foreign exchange reforms
   (d) Tax reforms
2. Potato Chips and popcorn are substitutes if there is an increase in the price of potato chips, all other things remaining constant.
   (a) Demand curve of popcorn shifts right ward
   (b) There is no change in demand of popcorn
   (c) Demand Curve of popcorn shifts leftward
   (d) Demand Curve of popcorn remains unchanged but there is a movement on its demand curve. Both price and quantity demanded change and a new equilibrium established
3. In monopolistic competition, each firm makes its product different on the basis of colour, taste, packaging, size and shape. This practice is called:
   (a) Product Differentiation
   (b) Homogenous Product
   (c) Product Distribution
   (d) Price Discrimination
4. Commodities A and B are complementary goods. If price of A decreases,
   (a) quantity demanded for Both A and B decrease
   (b) quantity demanded for A decreases, but the quantity demanded for B increases
   (c) quantity demanded for A increases, but the quantity demanded for B decreases
   (d) quantity demanded for both A and B increase.

## SOLUTIONS OF NOVEMBER 2020

1. (a) In India **financial sector reforms** led to the establishment of private sector banks, both Indian and foreign.
2. (a) If potato chips and popcorns are substitutes then increase in price of potato chips will increase the demand for popcorns and hence demand curve of popcorn will shift to the right.
3. (a) **Product Differentiation:**
   Process of making the product different on the basis of colour, taste, packaging, size & shape to make it more attractable to a particular target market.
4. (d) If commodities A & B are complementary goods and price of a decreases then quantity demand for both A & B will increases.

## QUESTIONS OF JANUARY 2021

1. A unit tax is a tax that the government imposes per unit sale of output for manufacturing firm operating under perfect competition, what is the likely impact of a unit tax an its supply?
   (a) At any given market price, the firm will supply the same number of units of output
   (b) Impact cannot be determined
   (c) At any given market price, the firm will supply fewer units of output
   (d) At any given market price, the firm will supply greater units of output
2. In a perfectly competitive market with a fixed number of firms, with market supply curve remaining unchanged when market demand curved shift left ward.
   (a) Equilibrium quantity decreases and equilibrium price increases
   (b) Both equilibrium quantity and equilibrium price increase
   (c) Equilibrium quantity increases and equilibrium price decreases
   (d) Both equilibrium quantity and equilibrium price decrease

3. Commodities X and Y are complementary goods. If price of X increases, it is likely that:
   (a) Quantity demanded for both X and Y will increase
   (b) Quantity demanded for X will decrease, but the quantity demanded for Y will increase
   (c) Quantity demanded for both X and Y will decrease
   (d) Quantity demanded for X will increase, but the quantity demanded for Y will decrease
4. In general, if market demand for a commodity is price inelastic, then the price elasticity of demand for that commodity is:
   (a) Greater than 2 but less than 3
   (b) Equal to 1
   (c) Greater that 1 but less than 2
   (d) Less than 1

## SOLUTIONS OF JANUARY 2021

1. (a) At any given market price the firm will supply the same number of unit of output.
2. (d) Both equilibrium quantity and price decrease because a decrease in demand will cause the equilibrium price to fall quantity supplied will decrease.
3. (c) As commodities x and y are complementary goods hence, if price of x increase by any specific reason the quantity demanded for both x and y will decrease (eg. pen and ink).
4. (d) The price elasticity of demand for that commodity is less than 1 because the demand is inelastic and it cannot be postponed.

## QUESTIONS OF MAY 2021

1. At any given price of a commodity, if market demand for the commodity is sold to be price elastic, then it can be concluded that the price elasticity of demand for that commodity $e_D$ has the following value.

(a) $e_D = -1$
(b) $e_D > -1$
(c) $-1 < e_D < -0.5$
(d) $-0.5 < e_D < 0$

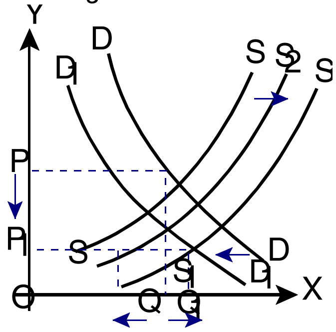
2. Studies of market equilibrium show that for fixed number of firms, if the supply curve shifts rightward and if simultaneously the demand curve shifts leftward, then:
   (a) equilibrium quantity may increase, or decrease or remain unchanged and equilibrium price decreases
   (b) equilibrium quantity decrease and equilibrium price may increase, or decrease or remain unchanged
   (c) equilibrium quantity increases and equilibrium price may increase, or decrease or remain unchanged
   (d) equilibrium quantity may increase, or decrease or remain unchanged and equilibrium price increases
3. A perfectly competitive market having a fixed number of firms was in equilibrium. The equilibrium was last, price rase and market supply exceeded market demand. The expected outcome is competition among:
   (a) Firms leading to fall in price
   (b) Firms leading to rise in price
   (c) Consumers leading to fall in price
   (d) Consumers leading to rise in a price
4. A market structure where the number of firm is large, there is free entry and exit to firms and where each firm makes its product different on the basis of colour, taste packaging, size and shape is a/an:
   (a) Monopoly
   (b) Perfect Competition
   (c) Oligopoly
   (d) Monopolistic Competition
5. Duopoly is the special case of oligopoly where there are:
   (a) exactly two sellers
   (b) exactly three buyers
   (c) exactly three sellers
   (d) exactly two buyers

6. In which market structure, is the following statement true?
   The demand curve that a firm faces is perfectly elastic; it is a horizontal straight line at the market price.
   (a) Monopoly
   (b) Perfect competition
   (c) Monopolistic competition
   (d) Oligopoly
7. Consider the following statements:
   (i) In a perfectly competitive market, firms are price-takers.
   (ii) The market supply curve is obtained by the horizontal summation of the supply curves of individual firms.
   Which of the following is CORRECT?
   (a) Both (i) and (ii) are FALSE
   (b) Both (i) and (ii) are TRUE
   (c) (i) is TRUE and (ii) is FALSE
   (d) (i) is FALSE and (ii) is TRUE
8. Which is correct for each firm operating in a perfectly competitive market?
   (a) Marginal Revenue = Average Revenue
       Market Price > Marginal Revenue
   (b) Marginal Revenue = Market Price
       Marginal Revenue > Average Revenue
   (c) Marginal Revenue = Average Revenue = Market Price
   (d) Marginal Revenue = Average Revenue
       Market Price > Average Revenue

## SOLUTIONS OF MAY 2021

1. (a) At any given price of commodity if market demand for the commodity is said to be price elastic, then it can be concluded that the price elasticity of demand for that commodity $C_D = -1$
   i.e. It is the unit price elastic if the absolute value is equal to 1.

2. (a) Supply curve shifts rightward means



supply is increasing and demand curve shifts leftward means demand is decreasing. This may increase/ decrease/ remain unchanged the quantity but equilibrium price will reduce as demand has reduced.

3. (a) When supply exceeds demand in a perfectly competitive market then the competition amongst firms will lead to a fall in price
4. (b) **Perfect competition:** Where the number of firms is large. There is a free entry and exit to firms and where each firm makes its products different on the basis of colour, taste packaging, size and shape.
5. (a) A small collection of firms who dominate a market is called an oligopoly. A duopoly is a special case of an oligopoly, in which only two sellers exist.
6. (b) In Perfect Competition the demand curve that a firm faces is perfectly elastic; it is a horizontal straight line at the market price.
7. (b) Both (i) and (ii) are TRUE as In perfect competition the firms are price-takers and the market supply curve is the summation of supply curves of individual firms.
8. (c) In case of a perfectly competitive market the Marginal Revenue = Average Revenue - Market Price.

## QUESTIONS OF JULY 2021

1. The market price of a commodity rises from ₹ 500 to ₹ 550. As a result, the quantity supplied by a firm increases by 10 units. The price elasticity of the firm's supply curve is 0.8. What are the initial and final output levels of the firm?
   (a) Initial output = 112 units
   Final output = 122 units
   (b) Initial output = 134 units
   Final output = 144 units
   (c) Initial output = 125 units
   Final output = 135 units
   (d) Initial output = 120 units
   Final output = 130 units
2. In a perfectly competitive market, when both supply curve and demand curve shift rightwards, what is the effect?
   (a) Quantity increases; Price may increase, decrease or remain unchanged.
   (b) Price increases; Quantity may increase, decrease or remain unchanged.
   (c) Quantity decreases; Price may increase, decrease or remain unchanged.
   (d) Price decreases; Quantity may increase, decrease or remain unchanged.
3. Consider the following statement:
   As the income of the consumer increases, the demand for this good falls, and as the income decreases, the demand for this good rises.
   The statement applies to:
   (a) Normal goods
   (b) Inferior goods
   (c) Substitutes
   (d) Complements

## SOLUTIONS OF JULY 2021

1. (c) Elasticity of Supply = 0.8
Initial Price, $P_1$ = ₹ 500
Final, Price, $P_2$ = ₹ 550
$P = P_2 - P_1$
$P = 550 - 500$
$P = 50$
$Q = 10$ units

$$e_s = \frac{\triangle Q}{\triangle P} \times \frac{P_1}{Q_1}$$

$$0.8 = \frac{10}{50} \times \frac{500}{Q_1}$$

$$\frac{8}{10} = \frac{10}{50} \times \frac{500}{Q_1}$$

$$Q_1 = \frac{10 \times 500 \times 10}{8 \times 50} = 125 \text{ units}$$

Initial Quantity = 125 units
Final Quantity $= \triangle Q + Q_1$
= 125 + 10
= 135 units

2. (a) In a perfectly competitive market when both the supply curve and demand curve shift rightwards **the quantity increases and the price may increase, decrease or remain unchanged**. When we will make a curve with adjustments the quantity will increase and price will remain unchanged and also perfect competition is characterized by uniform price.

3. (b) As the income of the consumer increases and decreases, the demand of **inferior goods** fall and rise respectively.

## QUESTIONS OF NOVEMBER 2021

1. Darjeeling Tea, Nagpur Orange and Banaras Sarees and brocades enjoy domestic and International Protection as:
   (a) Copyrights
   (b) Patents
   (c) Geographical indications
   (d) Trademarks
2. A manufacturing firm operating under perfect competition uses two factors of production capital and labour. The firm makes a technological innovation and thus, starts to produce more units of output with the same levels of capital and labour. All other things being equal, what is the expected effect on the quantity supplied by the firm of any given price ?
   (a) At any given price, the quantity supplied by the firm will be higher
   (b) At any given price, the quantity supplied by the firm will be lower
   (c) The effect on quantity Supplied by the firm at any given price cannot be determined
   (d) At any given price, the quantity supplied by the firm will remain unchanged
3. Shoes and socks are complenmentary goods. If there is an increase in the price of socks, all other things remaining constant:
   (a) Demand curve of Shoes shifts rightward
   (b) Demand curve of Shoes remains unchanged
   (c) Demand curve of Shoes remains unchanged but there is a movement along the demand curve
   (d) Demand curve of Shoes shifts leftward
4. Pen and ink are complementary goods .If there is an increase in the price of Pens, all other things remaining constant. It can be expected that:
   (a) Demand of ink will rise
   (b) Demand of Pens will increase
   (c) Demand of ink will fall
   (d) Demand of ink will remain constant

5. Consider the following statements:
   (i) The number of firms is large
   (ii) There is free entry and exit of firms
   (iii) The goods produced by the firms are not homogenous
   All statements are true in case of:
   (a) Pure Competition
   (b) Perfect Competition
   (c) Monopolistic Competition
   (d) Monopoly
6. The nature of relationship of India with foreign countries and the political ideology and practices of the ruling party are some of the elements of the:
   (a) Political environment
   (b) Social environment
   (c) Economic environment
   (d) Legal environment
7. In general, if the market demand for a good is said to be inelastic, at a given price, then at that price the price elasticity of demand for that good is:
   (a) Greater than 2 but less than 3
   (b) Less than 1
   (c) Greater than 1 but less than 2
   (d) Equal to 1
8. A manufacturing firm operates under perfect competition. At the market price of ₹100, the firm supplies 200 units of output. The market prices increases to ₹110. The price elasticity of the firm's supply is 11 what quantity will the firm supply at the new price?
   (a) 216 units
   (b) 222 units
   (c) 196 units
   (d) 210 units

9. For a Firm under monopolistic competition, the Average Revenue Curve is:
   (a) Convex to the origin
   (b) Upward sloping
   (c) Downward sloping
   (d) A horizontal straight line
10. In a perfectly competitive market with a fixed number of firms, at the current market price, it is found that the market supply exceeds the market demand. Then, all other things remaining the same, it can be expected that:
   (a) Market price tends to rise, quantity demanded falls and quantity supplied increases
   (b) Market price tends to fall, quantity demanded falls and quantity supplied increases
   (c) Market price tends to rise, quantity demanded increases and quantity supplied falls
   (d) Market price tends to fall, quantity demanded increases and quantity supplied falls

## SOLUTIONS OF NOVEMBER 2021

1. (c) **A geographical indication (GI)** is a sign used on products that have a specific geographical origin and possess qualities or a reputation that are due to that origin. In order to function as a GI, a sign must identify a product as originating in a given place. Examples of possible Indian Geographical Indications are Basmati Rice, Alphanso Mango, Nagpur Orange, Kolhapuri Chappal, Bikaneri Bhujia, Agra Petha, Paithani and Banaras Saree, Feni (Liquor from Goa), Lonavala Chikki, Tirunelveli Halwa, Mysore Rasam, etc.
2. (a) Shifts in a supply curve are usually the result of advances in technology that reduce the input costs of production. Technological advances that improve production efficiency will shift a supply curve to the right. The cost of production goes down, and consumers will demand more of the product at lower prices.

3. (d) Shoes and socks both are complementary to each other and are used together. Therefore, the increase in shoe price will discourage the demand for socks. Therefore, due to the decrease in demand for socks, the **demand curve for socks will shift leftwards** parallelly from D1D1 to D2D2. The price of shoes decreased. A decline in the price of shoes will increase demand for socks because these goods are complements.
4. (c) Fountain pen and ink are complementary goods; because without ink, fountain pen is useless and without fountain pen ink is useless. If only the price of fountain pen (Ink) increases, then the demand for ink (fountain pen) is decreases along with decreasing the demand for fountain pen (ink).
5. (b) In a **perfect competition** market structure, there are a large number of buyers and sellers. All the sellers of the market are small sellers in competition with each other. There is no one big seller with any significant influence on the market. So, all the firms in such a market are price takers.
6. (a) According to the Business Dictionary the **political environment** is the government actions which affect the operations of a company or business. These actions can be present on several different levels including the local, state, regional, national, and international level.
7. (b) Demand for a good is said to be inelastic when the elasticity is less than one in absolute value: that is, change in price have a relatively small effect on the quantity supplied.
8. (d) Let the firm supply x units at the new price.

$P = ₹\ 100;\ P1 = ₹\ 100;$

$\triangle P = P1 - P = ₹\ 110 - ₹\ 100$

$Q = 200$ *units;* $Q1 = x$ *units;*

$\triangle Q = Q1 - Q = (x - 200)$ *units*

$Es = 1$

$Es = P/Q \times \triangle Q/\triangle P$

$1 = 100/200 \times (x - 200)/10$

$x = 210$ *units*

9. (d) If a monopolistic competition wants to sell a larger quantity, then it must lower the price. The average revenue curve reflects the competitive degree of market control held by a firm. For a perfectly firm with no market control, the average revenue curve is a **horizontal line.**
10. (b) In a perfectly competitive market, it can be expected that market price tends to fall, quantity demanded falls and quantity supplied increases.

## QUESTIONS OF JANUARY 2022

1. With a fixed number of firms, market equilibrium was achieved in a perfectly competitive market with demand curve remaining unchanged when supply curve shifts rightward, then:
   (a) the equilibrium quantity increases and the equilibrium price decreases
   (b) both the equilibrium quantity and the equilibrium price increase
   (c) both the equilibrium quantity and the equilibrium price decreases
   (d) the equilibrium quantity decreases and the equilibrium price increases
2. As an example of monopolistic competition in up on Meerut highway Shopkeepers sell soda that is of almost flavour from Jan Shikanji this is an example of:
   (a) Close but not perfect substitutes
   (b) Close but not perfect complements
   (c) Perfect substitutes
   (d) Perfect complements
3. In a perfectly competitive market, demand curve facing a firm is:
   (a) Downward sloping
   (b) Upward sloping
   (c) A vertical straight line whose distance from the Y-axis is the market price
   (d) A horizontal straight line whose height above the x-axis is the market price

4. In which market structure does , the following relationship hold good for all firms?
   Marginal revenue = Average revenue-Market price
   (a) Monopoly
   (b) Perfect Competition
   (c) Monopolistic Competition
   (d) Oligopoly
5. In market equilibrium, supply of oil is vertical line. The downward sloping demand curve shifts to the rights. Then:
   (a) Price of oil will rise
   (b) Quantity of oil will rise
   (c) Price of oil will fall
   (d) Price of oil will remain the same
6. Two goods X and Y are substitutes if price of X falls. What is the expected impact on equilibrium quantity of Y ?
   (a) a decrease in equilibrium price and an in equilibrium quantity of Y
   (b) an increase in both equilibrium price and equilibrium quantity of Y
   (c) a decrease in both equilibrium price and equilibrium of Y
   (d) an increase in equilibrium price and a decrease in equilibrium quantity of Y.

## SOLUTIONS OF JANUARY 2022

1. (a) A positive change in supply when demand is constant shifts the supply curve to the right, which results in an intersection that yields lower prices and higher quantity. A negative change in supply, on the other hand, shifts the curve to the left, causing prices to rise and the quantity to decrease. Hence, a fixed number of firms, market equilibrium was achieved in a perfectly competitive market with demand curve remaining unchanged when supply curve shifts rightward, then the equilibrium quantity increases and the equilibrium price decreases.

2. (a) Monopolistic competition is a type of imperfect competition such that there are many producers competing against each other, but selling products that are differentiated from one another (e.g. by branding or quality) and hence are not perfect substitutes.
3. (d) The Demand Curve in Perfect Competition A perfectly competitive firm faces a demand curve is a horizontal line equal to the equilibrium price of the entire market.
4. (b) Marginal Revenue, Price, and Demand for the Perfectly Competitive Firm. We have seen that a perfectly competitive firm's marginal revenue curve is simply a horizontal line at the market price and that this same line is also the firm's average revenue curve. For the perfectly competitive firm, MR = P = AR.
5. (a) In market equilibrium supply of oil is vertical line the downward sloping demand curve shifts to the rights. Then price of oil will rise.
6. (b) The equilibrium price and quantity are likely to increase if there is an increase in the price of a substitute (Y) of Good X. Changes in the price of one substitute good tends to change the demand for another substitute good.

## QUESTIONS OF JUNE 2022

1. The firms adopt the following strategy in an industry characterized by monopolistic competition.
   (a) exploit economies of scale in production and reduce costs with the passage of time
   (b) advertise brand names and specialities of their products to differentiate themselves
   (c) expand plant size and sell globally
   (d) Set the unit price nearly to average cost and not make much profits.
2. Which market structure has all of the following characteristics?
   (i) Firms produce goods that are not homogeneous
   (ii) Free entry and exit of firms
   (iii) A large numbers of firms

(a) Perfect Competition
(b) Monopoly
(c) Monopolistic Competition
(d) Oligopoly.

3. A firm in a perfectly competitive industry in the long run, earns:
(a) Nil profit
(b) Between 8% and 11% annual profit on capital employed
(c) Super normal profit
(d) Normal profit.

4. The loans given from the International Monetary Fund to the Government of India are examples of:
(a) Revenue Receipts
(b) Capital Expenditure
(c) Capital Receipts
(d) Revenue Expenditure.

5. Consider the following statements
(i) In monopoly, there is restriction on entry of firms
(ii) In a monopoly, the demand curve for the output that the monopolist firm faces is a horizontal line which of the following is CORRECT?
(a) Both (i) and (ii) are TRUE
(b) (i) is TRUE and (ii) is FALSE
(c) (i) is FALSE and (ii) is TRUE
(d) Both (i) and (ii) are FALSE.

6. A market structure in which the number of firms is large selling differentiated Products based on colour, taste, packing, size, and shape, there is free entry and exit of firms and each firm has partial control over price.
(a) Oligopoly
(b) Perfect competition
(c) Monopolistic competition
(d) Monopoly

7. For each firm operating in a perfectly Competitive market, the following is correct ?
   (a) Marginal Revenue = Average = Market price
   (b) Marginal Revenue = Average Revenue Market price = Average Revenue
   (c) Marginal Revenue = Average Revenue Market price = Marginal Revenue
   (d) Marginal Revenue = Market price Marginal Revenue = Average Revenue
8. For a firm under perfect Competition which relationship holds good ?
   (a) average revenue and marginal revenue curves are downward sloping from left to right and marginal revenue lies below average revenue.'
   (b) average revenue and marginal revenue curves are straight lines. Coinciding with each other and are parallel to the quantity axis.
   (c) average revenue and marginal revenue curves are convex to the origin and marginal revenue lies below average revenue.
   (d) average revenue and marginal revenue curves are convex to the origin and marginal revenue lies below average revenue.
9. Consider the following statements:
   (i) Net Domestic Product at Factor Cost is the factor income occurring to owners of factors of production for supplying factor services within domestic, territory during an accounting year.
   (ii) A subsidy given directly to firm by the government to encourage production is likely to reduce prices.

   Which of the following is CORRECT ?
   (a) Both (i) and (ii) are FALSE
   (b) (i) is TRUE and (ii) is FALSE
   (c) Both (i) and (ii) are TRUE
   (d) (i) is FALSE and (ii) is TRUE

## SOLUTIONS OF JUNE 2022

1. (b) The firms adopt the strategy of heavy brand names advertising and specialities of their products to differentiate themselves in monopolistic competition.
2. (a) In economic theory, **perfect competition** occurs when all companies sell identical products, market share does not influence price, companies are able to enter or exit without barrier, buyers have perfect or full information, and companies cannot determine prices.
3. (a) Firms in a perfectly competitive world earn **zero profit or Nil Profit** in the long-run. While firms can earn accounting profits in the long-run, they cannot earn economic profits.
4. (c) The loans given from the International monetary fund (IMF) to the government of India are example of **Capital receipts.** The IMF assists countries hit by crises by providing them financial support to create breathing room as they implement adjustment policies to restore economic stability and growth. It also provides precautionary financing to help prevent and insure against crises. The IMF's lending toolkit is continuously refined to meet countries' changing needs.
5. (b) In monopoly, there is restriction on entry of firms whereas in a monopoly, the demand curve seen by the single selling firm is **the entire market demand curve.** If the market demand curve is downward sloping, the monopolist knows that marginal revenue will not equal price.

   Hence, statement 1 is true and statement 2 is false.
6. (c) Monopolistic competition is a type of imperfect competition such that there are many producers competing against each other, but selling products that are differentiated from one another (e.g. by branding or quality) and hence are not perfect substitutes. In monopolistic competition, a firm takes the prices charged by its rivals as given and ignores the impact of its own prices on the prices of other firms.

7. (a) A competitive firm's marginal revenue always equals its average revenue and price. This is because the price remains constant over varying levels of output.
8. (b) In the perfect market competition, there are a large number of small buyers and sellers. Thus, the firm is the price taker. Also, in this situation, all the firms sell homogeneous goods. Thus, the price remains constant but the revenue changes. Here, Average revenue curve is a straight line parallel to X-axis. Also, in this situation AR = MR.
9. (d) The net domestic product at factor cost is the sum total of net values added by all the producers in the domestic territory of the country during an accounting year.
   A subsidy given directly to firm by the government to encourage production is likely to reduce prices.

## QUESTIONS OF JULY 2022

1. Assuming that milkshakes and smoothies are perfect substitutes for the consumer, if there is an increase in the price of milkshakes, all other things remain constant, it is expected that:
   (a) demand curve of smoothies will shift rightward
   (b) slope of the demand curve of smoothies will reduce
   (c) demand curve of smoothies will shift leftward
   (d) slope of the demand curve of smoothies will increase
2. The output of the monopoly firm has the market demand curve, which is:
   (a) parallel to they y-axis
   (b) parallel to the x-axis
   (c) downward sloping
   (d) upward sloping
3. Tea and Sugar complementary goods for the consumer. A decrease in the price of Sugar is likely lead to:
   (a) increase in the price of tea
   (b) increase in the demand for tea

(c) decrease in the price of tea
(d) decrease in the demand for tea

4. Consider the following statement.
As the income of consumers increase, the demand for this good falls, and as the income decrease, the demand for this goods rises. The statements applies to
(a) Substitute goods
(b) Complementary goods
(c) Public goods
(d) Inferior goods

5. Among the following which is true?
(a) Gross fiscal deficit = Gross primary deficit – Net interest liabilities
(b) Gross primary deficit = Gross fiscal deficit – Interest receipts
(c) Gross primary deficit = Gross fiscal deficit – Interest payments
(d) Gross fiscal deficit = Gross primary deficit – Interest receipts.

6. Which of the following is the capital expenditure of Government of India?
(a) Expenditure on acquisition of land and building for Central Sector Scheme projects.
(b) Payments of Interest subsidy for short-term credit to farmers.
(c) Interest payments on market loans borrowed by the Government of India.
(d) Expenditure on salaries of Cabinet Ministers.

7. Shoes and socks are complementary goods. If there is an increase in the price of socks, all other things remaining constant:
(a) Demand curve of shoes shift rightward
(b) Demand curve of shoes remains unchanged
(c) Demand curve of shoes remains unchanged but there is a movement along the demand curve
(d) Demand curve of shoes shifts leftward

8. The government imposes a unit tax which is a tax imposed per unit sale of output . The imposition of a unit tax by the government in a perfectly competitive market with a fixed number of firms shifts:
(a) The supply curve of a firm to the right
(b) The demand curve faced by a firm to the right

(c) The demand curve faced by a firm to the left
(d) The supply curve of a firm to the left

9. The following statement holds true in which market structure?
The demand curve that a firm faces is perfectly elastic . It is a horizontal straight at the market price?
(a) Monopoly
(b) Oligopoly
(c) Monopolistic Competition
(d) Perfect Competition

10. A firm a perfectly competitive industry, in the long run, earns?
(a) Nil profit
(b) Super -normal profit
(c) Normal profit
(d) Between 7% and 10% annual Profit on capital employed

## SOLUTIONS OF JULY 2022

1. (a) Milkshakes and smoothies are blended drinks that people often consume as treats. A milkshake is typically a cold drink made with milk, icecream and sweet flavorings like fruit. In comparison, a smoothie is a cold beverage often composed of blended fruit, vegetables and crushed ice. Some smoothies also include milk, yogurt or icecream. Since these treats serve a similar purpose, they're close substitutes for each other. A change in the price of a milkshake could influence consumer demand for smoothie substitutes.
Hence, A change in the price of a substitute-in-consumption causes a change in demand and a shift of the demand curve. An increase in the price of one substitute good causes **an increase in demand for the other**. A decrease in the price of one substitute good causes a decrease in demand for the other. The demand curve of smoothies will shift rightwards.

2. (c) The monopolist faces the **downward -sloping** market demand curve, so the price that the monopolist can get for each additional unit of output must fall as the monopolist increases its output.
3. (b) The prices of complementary or substitute goods also shift the demand curve. When the price of a good that complements a good decreases, then **the quantity demanded of one increases and the demand for the other increases**.

   Hence, a decrease in the price of sugar is likely lead to increase in the demand for tea.
4. (d) As the income of the consumer increases, the demand for an **inferior good** falls, and as the income decreases, the demand for an inferior good rise. Inferior goods include low-quality food items like coarse cereals. Inferior goods demand is inversely proportional to the income of consumers.
5. (c) Gross Primary Deficit is **Gross Fiscal Deficit less interest payments**. Net Primary Deficit is Net Fiscal Deficit minus net interest payments. A shrinking primary deficit indicates progress towards fiscal health.
6. (a) Capital expenditures are long-term investments, meaning the assets purchased have a useful life of one year or more. An example of capital expenditure could be **the money spent on, say, Railways or building national highways and roads**.

   Hence, expenditure on acquisition of land and building for central sector scheme/project is an example of Capital expenditure of government of India.
7. (d) A Complementary good is **a product or service that adds value to another**. In other words, they are two goods that the consumer uses together. For example, cereal and milk, or a DVD and a DVD player. On occasion, the complementary good is absolutely necessary, as is the case with petrol and a car. Demand for a complementary good decreases when the price of the commodity rises. Demand curve will shift to the left.

8. (d) When there is a tax on a good, the cost of production increases and decreases the profit of the producer. Hence, it leads to a decrease in the supply of a good which shifts the supply curve towards the left, i.e. $S_2S_2$ to $S_1S_1$. Concept: Movements Along and Shifts in Supply Curve.
9. (d) At a given price, a firm can sell any amount of output in a perfectly competitive market. **The demand curve facing the firm is a horizontal straight line representing a perfectly elastic demand curve**, since the product is homogeneous in this market.
10. (a) Firms in a perfectly competitive world earn zero profit in the long-run. While firms can earn accounting profits in the long-run, they cannot earn economic profits.

## QUESTIONS OF NOVEMBER 2022

1. Consider the following statements-
   (i) In a market with perfect competition, the average revenue for all firms equals the market price.
   (ii) In a market with perfect competition, marginal revenue for all businesses equals market price.
   Which of the following statements is TRUE?
   (a) (i) is TRUE and (ii) is FALSE
   (b) Both (i) and (ii) are FALSE
   (c) Both (i) and (ii) are TRUE
   (d) (i) is FALSE and (ii) is TRUE
2. In general, if the market demand for a good is said to be inelastic at a given price, then at that price the price elasticity of demand for that good is:
   (a) Greater than 2 but less than 3
   (b) Less than 1
   (c) Greater than 1 but less than 2
   (d) Equals to 2

3. There was equilibrium in a perfectly competitive market with a fixed number of firms. Price increased, the market supply outpaced the market demand and the equilibrium was lost. The expected outcome of the competition is:
   (a) A price decline driven by consumers
   (b) A price increase driven by firms
   (c) A price drop driven by firms
   (d) A price increase driven by consumers
4. When there is monopolistic competition instead of perfect competition, the short run equilibrium results in:
   (a) Both quantity produced and prices being higher than those of perfect competition.
   (b) Quantity produced being less and prices being higher than those of perfect competition.
   (c) Both quantity produced and prices being less than those of perfect competition.
   (d) Quantity produced being higher and prices being less than those of perfect competition.
5. In a perfectly competitive market, a firm makes technological progress in its production process. The results in a reduction in its marginal cost of production. What is the effect?
   (a) It shifts the demand curve faced by a firm to the left
   (b) It shifts the supply curve of the firm to the right
   (c) It shifts the demand curve faced by a firm to the right
   (d) It shifts the supply curve of the firm to the left
6. All of the following is FALSE in the case of monopolistic competition EXCEPT?
   (a) Entry into the industry by a firm is restricted
   (b) Goods produced by firms are homogeneous
   (c) Entry by new firms continues until super – natural profits are wiped out and firms in the long run make only normal profits
   (d) The number of firms is small

7. If firms experience short term losses under monopolistic competition, it is reasonable to assume that:
   (a) Some firms would exit from the market and demand curve for remaining firms would shift leftward
   (b) Some firms would exit from the market and demand curve for remaining firms would shift rightward
   (c) New firms would enter the market and demand curve for all participating firms would shift leftward
   (d) New firms would enter the market and demand curve for all participating firms would shift rightward

## SOLUTIONS OF NOVEMBER 2022

1. (d) In a perfectly competitive market, **price always equals marginal revenue** because no matter how many units are sold the market price is always added to the total revenue. Therefore, when we say that price equals marginal revenue, we are also saying the marginal revenue equals marginal cost.
   **Hence, statement (i) is FALSE and statement (ii) is TRUE**.
2. (b) Price elasticity of demand is a measurement of the change in consumption of a product in relation to a change in its price. A good is perfectly elastic if the price elasticity is infinite (if demand changes substantially even with minimal price change).
   - If price elasticity is greater than 1, the good is elastic; if less than 1, it is inelastic.
   - If a good's price elasticity is 0 (no amount of price change produces a change in demand), it is perfectly inelastic.
   - If price elasticity is exactly 1 (price change leads to an equal percentage change in demand), it is known as unitary elasticity.
   - The availability of a substitute for a product affects its elasticity. If there are no good substitutes and the product is necessary, demand won't change when the price goes up, making it inelastic.

Hence, as per the given question in general, if the market demand for a good is said to be inelastic at a given price, then at that price the price elasticity of demand for that good is **Less than 1**.

3. (b) In a perfectly competitive market, equilibrium price is determined by the forces of market demand and market supply. Market demand refers to the sum total of demand for a commodity by all the buyers in the market. Whereas market supply refers to the sum total of supply of a commodity by all the firms in the market.

   Hence, in the case where there was equilibrium in a perfectly competitive market with a fixed number of firms. Price increased, the market supply outpaced the market demand and the equilibrium was lost. The expected outcome of the competition is a rise in price driven by firms.

4. (b) When there is monopolistic competition instead of perfect competition, the short run equilibrium results in Quantity produced being less and prices being higher than those of perfect competition. In the short run, a monopolistically competitive firm maximizes profit or minimizes losses by producing that quantity where marginal revenue = marginal cost. If average total cost is below the market price, then the firm will earn an economic profit.

5. (a) Economic profits and losses play a crucial role in the model of perfect competition. The existence of economic profits in a particular industry attracts new firms to the industry in the long run. As new firms enter, the supply curve shifts to the right, price falls, and profits fall. Firms continue to enter the industry until economic profits fall to zero. If firms in an industry are experiencing economic losses, some will leave. The supply curve shifts to the left, increasing price and reducing losses. Firms continue to leave until the remaining firms are no longer suffering losses—until economic profits are zero.

6. (b) Monopolistic competition exists when many companies offer competing products or services that are similar, but not perfect, substitutes. The barriers to entry in a monopolistic competitive industry are low, and the decisions of any one firm do not directly affect its competitors.

7. (a) If firms experience short term losses under monopolistic competition, it is reasonable to assume that a) some firms would exit from the market and demand curve for remaining firms would shift leftward.

## QUESTIONS OF JANUARY 2023

1. The supply of oil is vertical in an equilibrium market. The demand curve's downward slope moves to the right then:
   (a) Price of oil will fall
   (b) Quantity of oil will rise
   (c) Price of oil will rise
   (d) Price of oil will remain the same
2. As an example of monopolistic competition in UP, on the Meerut highway, shopkeepers sell soda with a flavour almost similar to that of Jain shikanji.
   This is an example of-
   (a) Close but not perfect compliments
   (b) Perfect compliments
   (c) Close but not perfect substitutes
   (d) Perfect substitutes
3. According to data on hotel/occupancy in India tourists prefer to travel to fill areas in the summer. The implication of this is that:
   (a) Supply curve of hotels in hill stations is likely to shift leftward during the summers.
   (b) Supply curve of hotels in hill stations is likely to shift rightward during the summers.
   (c) Demand curve of hotels in hill stations is likely to shift rightward during the summers.
   (d) Demand curve of hotels in hill stations is likely to shift leftward during the summers.
4. A manufacturing firm operates under perfect competition. The firm's labour wage rate has been raised from the present level. At any given market price and assuming all other factors remain unchanged from the present level, it can be expected that:

(a) the firm supplies the same number of units of output
(b) the firm supplies fewer units of output
(c) the firm supplies more units of output
(d) the impact on the number of units of output of the firm cannot be exactly determined.

5. Which is the marketing function of a company that manufactures and sells goods including making decisions regarding the choice of wholesalers and retailers managing the inventory levels hold between the points of production and the points of sale well as storage and transportation of finished goods?
(a) Promotion
(b) Pricing
(c) Branding
(d) Physical distribution

## SOLUTIONS OF JANUARY 2023

1. (c) The supply of oil is vertical in an equilibrium market. The demand curve's downward slope moves to the right. Then price of oil will rise.
2. (a) As an example of monopolistic competition in Uttar Pradesh on the Meerut highway shopkeepers sell soda with a flavour almost similar to that of Jain shikanji. This is an example of close but not perfect compliments.
3. (c) According to data on hotel/occupancy in India tourists prefer to travel to fill areas in the summer. The implication of this is that demand curve of hotels in hill stations is likely to shift rightward during the summers.
4. (a) A manufacturing firm operates under perfect competition. The firm's labour wage rate has been raised from the present level. At any given market price and assuming all other factors remains unchanged from the present level, it can be expected that the firm supplies the same number of units of output.

5. (d) Physical distribution refers to the movement of finished goods from a company's distribution and fulfilment network to the end user. In ecommerce, physical distribution involves several ecommerce supply chain activities including warehousing, inventory control, order processing, retail fulfilment, and shipping.

## QUESTIONS OF NOVEMBER 2023

1. When does contraction in demand occur?
   (a) When quantity demanded increases due to a rise in income
   (b) When quantity demanded decreases due to a fall in income
   (c) When quantity demanded increases due to a price decrease
   (d) When quantity demanded decreases due to a price increase
2. Duopoly represents a specific instance of an oligopoly characterized by the presence of:
   (a) exactly three buyers (b) exactly two sellers
   (c) exactly two buyers (d) exactly three sellers
3. With regard to a commodity market characterized by a monopoly market structure, all of the following statements are accurate, EXCEPT
   (a) there is one seller of the commodity
   (b) entry into the industry by another firm is prevented
   (c) there are close substitutes for the commodity
   (d) the equilibrium level of output is defined by the point at which Marginal Revenue Marginal Cost and Marginal Cost is rising
4. What is the relationship that applies to a firm operating under perfect competition?
   (a) average revenue and marginal revenue curves are straight lines coinciding with each other and are parallel to the quantity axis
   (b) average revenue and marginal revenue curves are convex to the origin and marginal revenue is lower than average revenue
   (c) average revenue and marginal revenue curves are downward sloping and marginal revenue is lower than average revenue
   (d) average revenue and marginal revenue curves are concave the origin and marginal revenue is lower than average revenue

5. A startup wants to bid for government tenders to undertake large projects. Which government scheme gives startups priority in acquiring government tenders and does not require them to have prior experience?
   (a) Skill India
   (b) Start-Up India
   (c) Make in India
   (d) Stand up India
6. When does expansion in demand occur?
   (a) When quantity demanded decreases due to a fall in income
   (b) When quantity demanded decreases due to a price increase
   (c) When quantity demanded increases due to a price decrease
   (d) When quantity demanded increases due to a rise in income
7. Which market structure has both the following characteristics?
   (i) If firms in the industry are receiving supernormal profit in the short run, new firms will enter the industry
   (ii) If firms in the industry are facing losses in the short run, some firms will exit from the market
   (a) Monopolistic competition
   (b) Monopoly
   (c) Oligopoly
   (d) Perfect competition
8. When a commodity's supply exceeds its quantity demanded, the most common outcome is competition among:
   (a) buyers leading to fall in price
   (b) seller leading to rise in price
   (c) seller leading to fall in price
   (d) buyers leading to rise in price
9. If the cross elasticity of demand is negative, what does it indicate about the relationship between two commodities?
   (a) They are not related at all
   (b) They are complementary goods
   (c) They are perfect substitutes
   (d) They are unrelated to consumer preferences

## SOLUTIONS OF NOVEMBER 2023

1. (d) When quantity demanded decrease due to a price increase.
   **Explanations:** Meaning of contraction of demand is when the quantity demanded falls due to a increase in the price, keeping other factor constant. It is known as contraction in demand.
2. (b) Exactly two sellers.
   **Explanations:** In a duopoly, there are two sellers or producers dominating a particular market.
3. (d) The equilibrium level of output is defined by the point which Marginal Revenue Marginal Cost and Marginal Cost is rising.
   **Explanations:** A market has a monopoly structure, if there is:
   One seller of the commodity
   Entry into the industry by another firm is Prevented
   There are also substitutes for the commodity.
   So the answer is (d).
4. (a) Average revenue and marginal revenue curves are straight lines coinciding with each other and are parallel to the quantity axis.
   **Explanations:** A firm's demand curve in prefect competition is horizontal-making it perfectly elastic, since the firm is a price take, and it has to accept the market price. The firm can produce as much of the good as it wants to because the demand for the good will not change regards less of the level of supply.
5. (b) Start -up India.
   **Explanations:** In Start-up India scheme is an initiative by the government of India for generation of employment and wealth creation. The Start-up get priority in getting government tenders. Also, they are not required to have any prior experience.
6. (c) When quantity demanded increases due to a price decrease.
   **Explanation**: When the commodity falls, the qty. demanded rises. It leads to the downward movement of the demand curve. It is also known as expansion of demand.

7. (d) Perfect competition

   **Explanation**: In the above mention option the structure which has Both the characteristics is perfect competition marker a market situation where are large number of buyer and seller's dealing in a homogenous product at a price fired by the market and there is free exit and entry in this market.

8. (c) Seller's leading to fall in price

   **Explanation**: Given the quantity supplied of a commodity is more than its quantity demanded. To Find write the most common outcome is competition among? Seller's leading to fall in price the most common outcome is competition among. Because there is mall supply than demand, the price effect is modest.

   **Fall in Price** Deflamation is a widespread drop in the price of goods and services, usually accompanied by a reduction in the amount of money and credit available in the economy.

9. (b) They are complementary goods

   **Explanation**: If the cross elasticity of demand is negative, it indicates that the two commodities are complementary goods.

## QUESTIONS OF MAY 2024

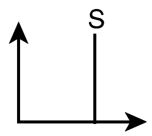
1. What is the main factor determining the demand of a commodity according to the law of demand?
   (a) Consumer preferences
   (b) Price of the commodity
   (c) Government policy
   (d) Weather conditions
2. What does a perfectly inelastic supply imply?
   (a) Quantity supplied changes proportionately with the change in price
   (b) Quantity supplied remains the same regardless of the price
   (c) Quantity supplied changes by a larger percentage than the percentage change in price
   (d) Quantity supplied becomes zero with a slight fall in price

3. When is demand considered to be relatively elastic?
   (a) When the price is constant
   (b) When the proportionate change in demand is less than the proportionate change in price
   (c) When the proportionate change in demand is equal than the proportionate change in price
   (d) When the proportionate change in demand is greater than the proportionate change in price
4. In a monopolistic competition market, two sellers are offering slightly different versions of the same product. Seller A decides to introduce a new feature to its product. What is the likely outcome?
   (a) Consumer will not notice the change and will buy any product offered to them
   (b) Seller A can now set a significantly higher price for its product
   (c) Seller A may attract some customers who prefer the new feature, but completion will limit the price increase
   (d) Seller A may attract some customers who prefer the new feature, but competition will not limit the price increase
5. Which of the following is NOT an assumption of the law of demand?
   (a) No change in consumer's preferences
   (b) No change in the quality supplied
   (c) No change in consumer's income
   (d) No expectation of future price changes
6. What is the numerical value for perfectly inelastic demand?
   (a) -1
   (b) 0
   (c) 1
   (d) Infinity
7. How does the length of time affect the elasticity of Supply?
   (a) The elasticity of supply can be affected by the length of time in certain circumstances
   (b) Shorter time periods often result in a more elastic supply
   (c) Longer time periods typically lead to a smaller elasticity of supply
   (d) The elasticity of supply in the long-period market is larger than in the short period market

8. In a market with perfect competition, there are numerous small sellers of identical products. One of the sellers decides to increase the price of its product. What is likely to happen?
   (a) The seller will face a significant decrease in sales as consumers switch to other sellers
   (b) Other sellers will follow suit and raise their prices
   (c) Consumers will only buy from the seller who increased the price
   (d) The government will intervene and set a maximum price for the product

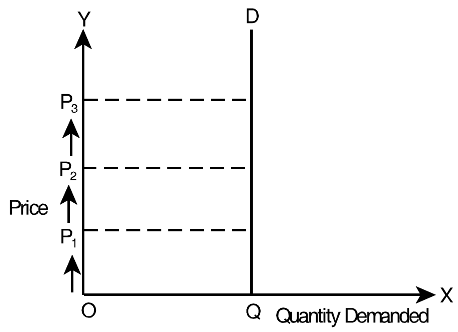
## SOLUTIONS OF MAY 2024

1. (b) 'Own price' of the commodity is the most important determinant of demand. When the own price of the commodity falls, its demand rises and when its own price rises, its demand falls.
2. (b) Perfectly inelastic supply means that quantity supplied remains the same when price increases or decreases.




3. (d) Demand is considered to be Relatively Elastic when the proportionate change produced in demand is greater than the proportionate change in price of a product. (Ep > I).
4. (b) In a monopolistic competition market, there are a large number of buyers as well as sellers. But they do not sell homogeneous products. The products are similar but all sellers sell slightly differentiated products. Now, consumers have the preference of choosing one product over another. The sellers can also charge a marginally higher price since they may enjoy some market power. So, the sellers become the 'price setters' to a certain extent.

5. (b) 'No change in the quality supplied' is NOT an assumption of the law of demand. Law of demand relates to the change in price variable only, assuming other determinants of demand to be constant. The law of demand is thus, based on the ceteris paribus assumptions.
6. (b) A 'Perfectly Inelastic Demand' is one when there is no change produced in the demand of a product with a change in its price. The numerical value for perfectly inelastic demand is zero, (ep = o).




7. (d) If the price of good rises, then by how much would supply rise, or how large will be the price - elasticity of supply, would depend on the length of time available for the necessary adjustments (e.g., in the quantities of the factor inputs used) to complete. That is why; the elasticity of supply in the long-period market would be larger than that in the short-period market.
8. (a) In a market with perfect competition, if one of the sellers decides to increase the price of its product, then the seller will face a significant decrease in sales as consumers will switch to other sellers. There is no big seller with any significant influence on the market. So, all the firms in such a market are price takers and if a firm rises the price of its product by so much as a penny, it will lose all of its sales to its competitors.