Introduction :

You have already studied the concept of utility in the previous chapter. Utility is the basis of demand. Utility may generate a desire or a need to have a particular commodity, but utility on its own cannot generate demand for the commodity. This chapter is an effort to analyse the concept of demand. Demand analysis is concerned with consumer behaviour.

Meaning of Demand :

In ordinary language, demand means a desire. Desire means an urge to have something. In Economics, demand means a desire which is backed by willingness and ability to pay.

For example, if a person has the desire to purchase a television set but does not have the adequate purchasing power then it will be simply a desire and not a demand.

Thus, demand is an effective desire. All desires are not demand.

In short,

Demand = Desire + willingness to purchase + Ability to pay.

Try this :

Identify the concepts :

1) A poor person wants to have a car ......

2) A rich person bought a car ......

Definition of Demand :

According to Benham, "the demand for anything at a given price is the amount of it, which will be bought per unit of time at that price."

Thus, following are the features of demand :

1) Demand is a relative concept.

2) Demand is essentially expressed with reference to time and price.

Demand Schedule :

Demand schedule is a tabular representation of the functional relationship between price and quantity demanded for a particular commodity.

A demand schedule may be either individual demand schedule or market demand schedule.

Individual Demand Schedule :

Individual demand is the quantity of a commodity demanded by a consumer at a given price during a given period of time.

Individual demand schedule is a tabular representation showing different quantities of commodities that an individual consumer is prepared to buy at various prices over a given period of time.

This can be explained with the help of the following individual demand schedule.

Individual demand schedule :

Table 3.1

Price of commodity 'x' (₹)	Quantity demanded of commodity 'x' (in kgs)
10	1
8	2
6	3
4	4
2	5

Table 3.1 shows different quantities of commodity 'x' purchased by an individual consumer at various prices. It can be observed that less quantity of commodity is demanded at rising prices and more quantity of commodity is demanded at falling prices. It indicates an inverse relationship between price and quantity demanded.

Individual Demand Curve :

Individual demand curve is a graphical representation of the individual demand schedule.

Fig. 3.1 represents an individual demand curve

which is based on table 3.1
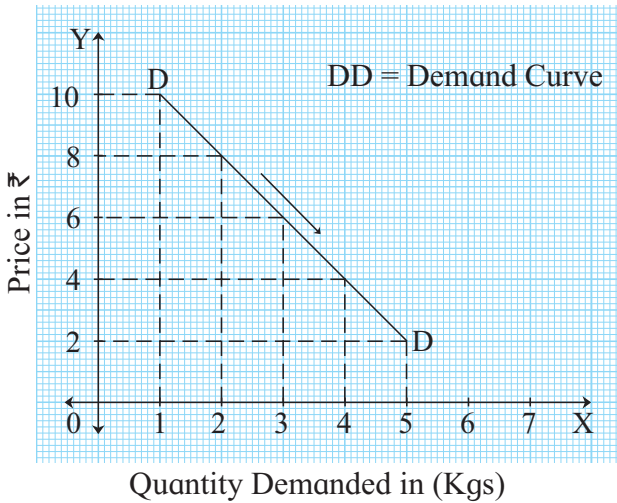
Individual Demand Curve

Fig. 3.1

In figure 3.1, X axis represents quantity demanded and Y axis represents the price of the commodity. The demand curve DD slopes downward from left to right, indicating an inverse relationship between price and quantity demanded.

Fig. 3.2 Individual Demand

Market Demand Schedule :

Market demand is total demand for a commodity from all the consumers at a given price during a given period of time.

Market demand schedule is a tabular representation showing different quantities of commodity which all consumers are prepared to buy at various prices over a given period of time.

It is obtained by a horizontal summation of the demand of all consumers at various prices. It also indicates an inverse relationship between price and quantity demanded.

This can be explained with the help of following market demand schedule.

Market demand schedule :

Table. 3.2

Price of commodity	Quantity of 'x' demanded Kgs.			Market demand
'x'(₹)	Con-sumer	Con-sumer	Con-sumer	A + B + C
	A	B	C	
10	5	10	15	30
8	10	15	20	45
6	15	20	25	60
4	20	25	30	75
2	25	30	35	90

Table 3.2 shows different quantities of commodity x purchased by different consumers (A, B, C) at various prices. It can be observed that less quantity of commodity is demanded at rising prices and more quantity of commodity is demanded at falling prices. Thus, there is an inverse relationship between price and quantity demanded.

Market Demand Curve :

Graphically, the market demand curve is a horizontal summation of individual demand curves. It is based on the market demand schedule. Fig. 3.3 represents the market demand curve
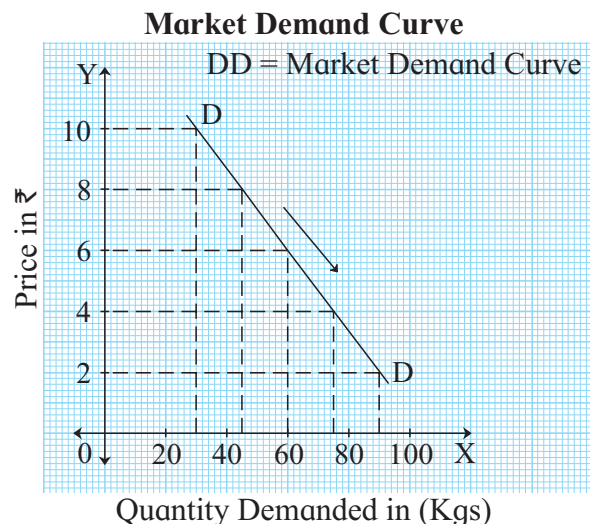
Market Demand Curve

Fig. 3.3

In figure 3.3, X axis represents market demand and Y axis represents the price of the commodity. The market demand curve 'DD' slopes downward from left to right, indicating an inverse relationship between price and market demand.
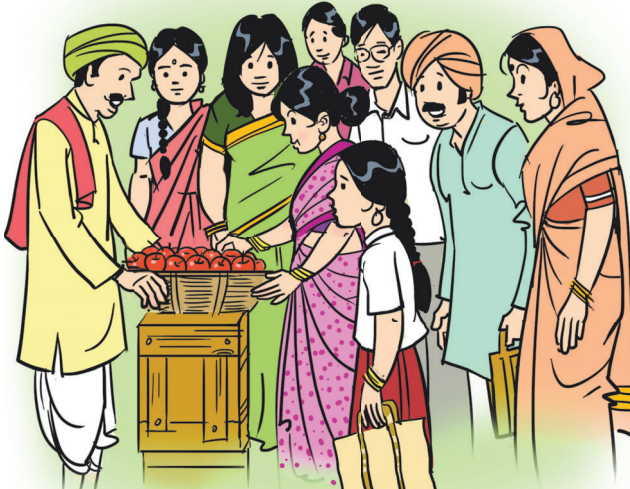

Fig. 3.4 Market Demand

Reasons justifying downward sloping demand curve are as follows :

1) **Law of Diminishing Marginal Utility :** We have seen that marginal utility goes on diminishing with an increase in the stock of a commodity and vice-versa. Therefore, a consumer tends to buy more when price falls and vice-versa. This implies that demand curve is downward sloping.

2) **Income effect :** In the case of normal goods, when price falls, purchasing power (real income) of a consumer increases which enables him to buy more of that commodity. This is known as income effect.

3) **Substitution effect :** In case of substitute goods, when the price of a commodity rises, the consumer tends to buy more of its substitute and less of that commodity whose price has increased. This is known as substitution effect.
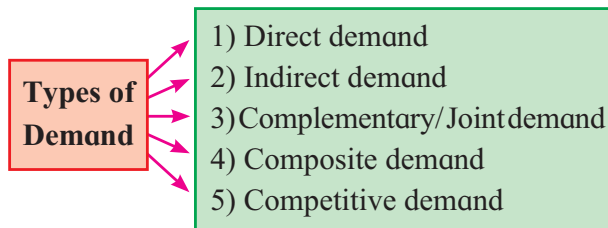
4) **Multi-purpose uses :** When a commodity can be used for satisfying several needs, its demand will rise with a fall in its price and fall with a rise in its price.

5) **New Consumers :** When the price of a commodity falls, a new consumer class appears who can now afford the commodity. Thus, total demand for commodity increases with fall in price.

Types of Demand :

Types of Demand	
	1) Direct demand
	2) Indirect demand
	3) Complementary/Joint demand
	4) Composite demand
	5) Competitive demand

1) **Direct demand :** It is the demand by the consumer for goods which satisfy their wants directly. They serve direct consumption needs of the consumers. Thus, it is the demand for consumer goods. For example, demand for cloth, sugar, etc.

2) **Indirect demand :** Indirect demand is also known as derived demand. It refers to demand for goods which are needed for further production. It is the demand for producer's goods. Hence, all factors of production have indirect or derived demand. For example, demand for workers in a sugar factory is derived or indirect demand.

3) **Complementary/Joint demand :** When two or more goods are demanded jointly to satisfy a single want, it is known as joint or complementary demand. For example, car and fuel etc.

4) **Composite demand :** The demand for a commodity which can be put to several uses is known as composite demand. For example, electricity is demanded for several uses such as light, fan, washing machine etc.

5) **Competitive demand :** It is demand for those goods which are substitute for each other. For example, tea or coffee, sugar or jaggery etc.

Try this :

Complete the table

Type of demand	Example
Direct demand	☐ ☐
☐	Workers in cotton textile industry
Joint demand	For preparing Coffee → Coffee Powder, ☐, ☐, ☐
☐	CNG and petrol, pen and pencil
☐	Milk → Tea, Curd, Direct consumption, Sweets

Determinants of Demand :

The demand for goods is determined by the following factors :

1) **Price :** Price determines the demand for a commodity to a large extent. Consumers prefer to purchase a product in large quantities when price of a product is less and they purchase a product in small quantities when price of a product is high.

2) **Income :** Income of a consumer decides purchasing power which in turn influences the demand for the product. Rise in income will lead to a rise in demand for the commodity and a fall in income will lead to a fall in demand for the commodity.

3) **Prices of Substitute Goods :** If a substitute good is available at a lower price then people will demand cheaper substitute good than costly good. For example, if the price of sugar rises then demand for jaggery will rise.

4) **Price of Complementary Goods :** Change in the price of one commodity would also affect the demand for other commodity. For example, car and fuel. If the price of fuel rises, then demand for cars will fall.

5) **Nature of product :** If a commodity is a necessity and its use is unavoidable, then its demand will continue to be the same irrespective of the corresponding price. For example, medicine to control blood pressure.

6) **Size of population :** Larger the size of population, greater will be the demand for a commodity and smaller the size of population smaller will be the demand for a commodity.

7) **Expectations about future prices :** If the consumer expects the price to fall in future, he will buy less in the present at the prevailing price. Similarly, if he expects the price to rise in future, he will buy more in the present at the prevailing price.

8) **Advertisement :** Advertisement, sales promotion scheme and effective sales-manship tend to change the preferences of the consumers and lead to demand for many products. For example, cosmetics, tooth brush etc.

9) **Tastes, Habits and Fashions :** Taste and habits of a consumer influence the demand for a commodity. If a consumer likes to

eat chocolates or consume tea, he will demand more of them. Similarly, when a new fashion hits the market, the consumer demands that particular type of commodity. If a commodity goes out of fashion then suddenly the demand for that product tends to fall.

10) Level of Taxation : High rates of taxes on goods or services would increase the price of the goods or services. This, in turn would result in a decrease in demand for goods or services and vice-versa.

11) Other factors :

    1) Climatic conditions

    2) Changes in technology

    3) Government policy

    4) Customs and traditions etc.

Law of Demand :

Introduction :

The law of demand was introduced by Prof. Alfred Marshall in his book, 'Principles of Economics', which was published in 1890. The law explains the functional relationship between price and quantity demanded.

Statement of the Law :

According to Prof. Alfred Marshall, "Other things being equal, higher the price of a commodity, smaller is the quantity demanded and lower the price of a commodity, larger is the quantity demanded."

In other words, other factors remaining constant, if the price of a commodity rises, demand for it falls and when price of a commodity falls demand for the commodity rises. Thus, there is an inverse relationship between price and quantity demanded.

Symbolically, the functional relationship between demand and price is expressed as :

$$Dx = f(Px)$$

Where D = Demand for a commodity

x = Commodity

f = Function

Px = Price of a commodity

Assumptions :

Law of demand is based on the following assumptions :

1) Constant level of income : If the law of demand is to find true operate then, consumers' income should remain constant. If there is a rise in income, people may demand more at a given price.

2) No change in size of population : It is assumed that the size of population remains unchanged. Any change in the size and composition of population of a country affects the total demand for the product.

3) Prices of substitute goods remain constant : It is assumed that the prices of substitutes remain unchanged. Any change in the price of the substitute will affect the demand for the commodity.

4) Prices of complementary goods remain constant : It is assumed that the prices of complementary goods remain unchanged because a change in the price of one good will affect the demand for the other.

5) No expectations about future changes in prices : It is assumed that consumers do not expect any further change in price in the near future. If consumers expect a rise in prices in future, they may demand more in the present even at existing high price.

6) No change in tastes, habits, preferences, fashions etc. : It is assumed that consumers' tastes, habits, preferences, fashions etc. should remain unchanged. Any change in these factors will lead to a change in demand.

7) No change in taxation policy : Taxation policy of the government has a great impact on demand for various goods and services.

Therefore, it is assumed that there is no change in the policy of taxation declared by Government.

The law of demand is explained with the help of the following demand schedule and diagram.

Demand schedule :

Table. 3.3

Price of commodity 'x' (₹)	Quantity demanded of commodity 'x' (in kgs.)
50	1
40	2
30	3
20	4
10	5

As shown in Table 3.3 when price of commodity 'x' is ₹ 50, quantity demanded is 1 kg. When price falls from ₹ 50 to ₹ 40, quantity demanded rises from 1 kg to 2 kgs. Similarly, at price ₹ 30, quantity demanded is 3 kgs and when price falls from ₹ 20 to ₹ 10, quantity demanded rises from 4 kg sto 5 kgs

Thus, as the price of a commodity falls, quantity demanded rises and when price of commodity rises, quantity demanded falls. This shows an inverse relationship between price and quantity demanded.
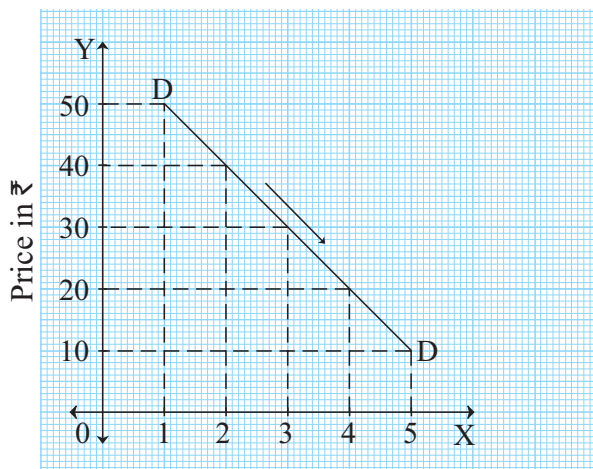
In fig. 3.5, X axis represents the demand for the commodity and Y axis represents the price of commodity *x*. DD is the demand curve which slopes downward from left to right due to an inverse relationship between price and quantity demanded.

Try this :

Draw a demand curve from the following demand schedule :

Price of Apple (₹) per kg	Quantity demanded (in kgs.)
40	5
50	4
60	3
70	2
80	1

Exceptions to the Law of Demand :

There are certain exceptions to the law of demand. It means that under exceptional circumstances, consumer buys more when the price of commodity rises and buys less when price of commodity falls. In such cases, demand curve slopes upwards from left to right. i.e. the demand curve has a positive slope as shown in fig. 3.6.

Demand Curve

Fig. 3.5

Exceptional Demand Curve
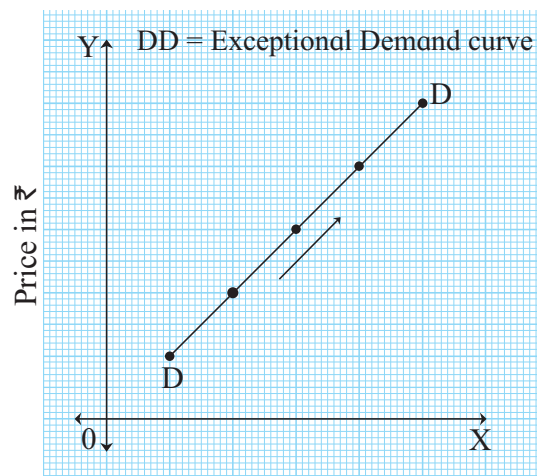
Fig. 3.6

Following are the exceptions to the law of demand:

1) **Giffen's paradox :** Inferior goods or low quality goods are those goods whose demand does not rise even if their price falls. At times, demand decreases when the price of such commodities fall.

   Sir Robert Giffen observed this behaviour in England in relation to bread. He noted that, when the price of bread declined, people did not buy more because of an increase in their real income or purchasing power. They preferred to buy superior good like meat. This is known as Giffen's paradox.

2) **Prestige goods :** Expensive goods like diamond, gold etc. are status symbol. So rich people buy more of it, even when their prices are high.

3) **Speculation :** The law of demand does not hold true when people expect prices to rise still further. In this case, although the prices have risen today, consumers will demand more in anticipation of further rise in price. For example, prices of oil, sugar etc. tend to rise before Diwali. So people go on purchasing more at a high price as they anticipate that prices may rise during Diwali.

4) **Price illusion :** Consumers have an illusion that high priced goods are of a better quality. Therefore, the demand for such goods tend to increase with a rise in their prices. For example, branded products which are expensive are demanded even at a high price.

5) **Ignorance :** Sometimes, due to ignorance people buy more of a commodity at high price. This may happen when consumer is ignorant about the price of that commodity at other places.

6) **Habitual goods :** Due to habit of consumption, certain goods like tea is purchased in required quantities even at a higher price.

Find out :

Examples of the given exceptions to the law of demand.

1) Prestigious goods – [   ] [   ]
2) Habitual goods – [   ] [   ]
3) Branded goods – [   ] [   ]

Variations in Demand :

When the demand for a commodity falls or rises due to a change in price alone and other factors remain constant, it is called variations in demand. It is of two types :

1) **Expansion of demand :** Expansion of demand refers to rise in quantity demanded due to fall in price alone while other factors like tastes, income of the consumer, size of population etc. remain unchanged.

   Demand moves in downward direction on the same demand curve.

   This is explained with the help of following fig. 3.7

Expansion of Demand
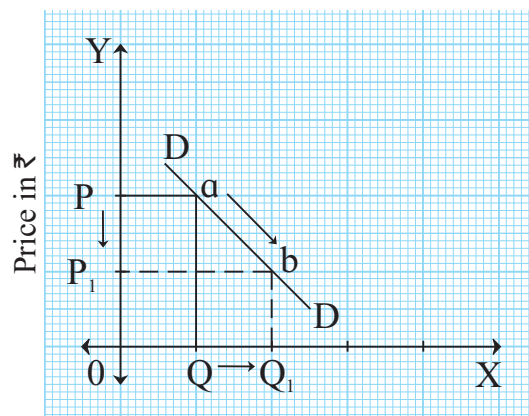

Quantity Demanded in kgs

Fig. 3.7

As shown in fig. 3.7, DD is demand curve. A downward movement on the same demand curve from point a to point b indicates an expansion of demand.

2) Contraction of Demand : Contraction of demand refers to a fall in demand due to rise in price alone. Other factors like tastes, income of the consumer, size of population etc. remain unchanged.

Demand curve moves in the upward direction on the same demand curve.

This can be explained with the help of following fig. 3.8
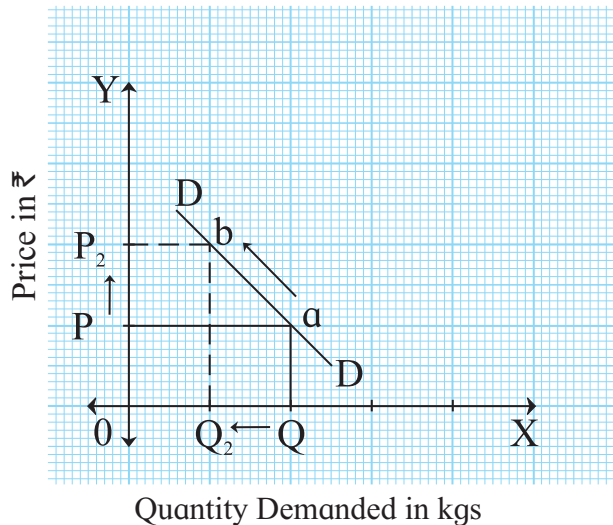
Contraction of Demand

Quantity Demanded in kgs

Fig. 3.8

As shown in fig. 3.8, DD is a demand curve. An upward movement on the same demand curve from point a to point b shows contraction of demand.

Changes in Demand :

When demand for a commodity increases or decreases due to changes in other factors and price remains constant, it is known as changes in demand. It is of two types :

1) Increase in demand : It refers to increase in quantity demanded due to favourable changes in other factors like tastes, income of the consumer, climatic conditions etc. and price remains constant.

Demand curve shifts to the right hand side of the original demand curve. This can be explained with the help of fig. 3.9
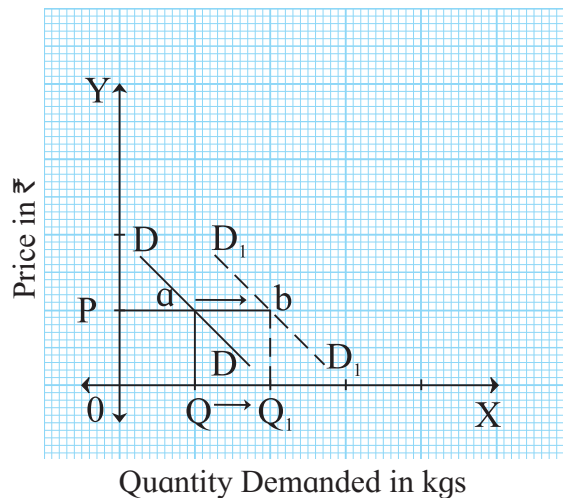
Increase in Demand

Quantity Demanded in kgs

Fig. 3.9

As shown in fig. 3.9, DD is the original demand curve. Demand curve shifts outward to the right from DD to D_1D_1 which indicates increase in demand.

2) Decrease in demand : It refers to decrease in quantity demanded due to unfavourable changes in other factors like tastes, income of the consumer, climatic conditions etc. and price remains constant.

Demand curve shifts to left hand side of the original demand curve. This can be explained with the help of fig. 3.10
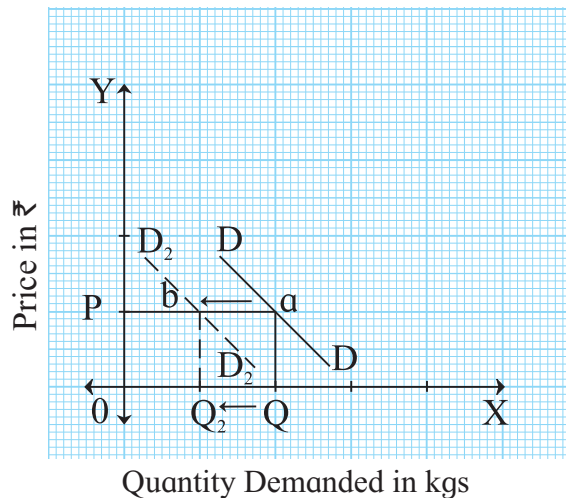
Decrease in Demand

Quantity Demanded in kgs

Fig. 3.10

As show in fig. 3.10, DD is the original demand curve. It shifts inward to the left from DD to D_2D_2 which indicates decrease in demand.

EXERCISE

Q. 1. Complete the following statments :

1) The relationship between demand for a good and price of its substitute is……..
   a) direct
   b) inverse
   c) no effect
   d) can be direct and inverse

2) The relationship between income and demand for inferior goods is…….
   a) direct
   b) inverse
   c) no effect
   d) can be direct and inverse

3) Symbolically, the functional relationship between Demand and Price can be expressed as ....
   a) $Dx = f(Px)$
   b) $Dx = f(Pz)$
   c) $Dx = f(y)$
   d) $Dx = f(T)$

4) When less units are demanded at high price it shows ....
   a) increase in demand
   b) expansion of demand
   c) decrease in demand
   d) contraction in demand

Q. 2. Give economic terms :

1) A situation where more quantity is demanded at lower price ………

2) Graphical representation of demand schedule ………

3) A commodity which can be put to several uses ………

4) More quantity is demanded due to changes in the factors determining demand other than price ………

5) A desire which is backed by willingness to purchase and ability to pay ………

Q. 3. Distinguish between :

1) Desire and Demand
2) Expansion of demand and Contraction of demand
3) Increase in demand and Decrease in demand

Q. 4. State with reasons whether you agree or disagree with the following statements :

1) Demand curve slopes downward from left to right.
2) Price is the only determinant of demand.
3) When price of Giffen goods fall, the demand for it increases.

Q. 5. 1) Observe the following table and answer the following questions :

Quantity demanded				
Price per kg. in ₹	Con-sumer A	Con-sumer B	Con-sumer C	Market demand (in kgs) (A+B+C)
25	16	15	12	☐
30	12	11	10	☐
35	10	09	08	☐
40	08	06	04	☐

a) Complete the market demand schedule.

b) Draw market demand carve based on above market demand schedule.

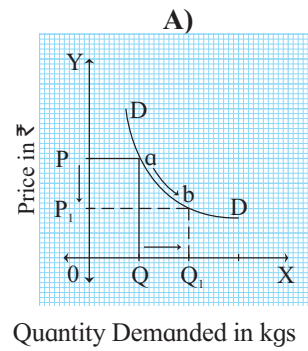**2) Observe the given diagram and answer the following questions :**
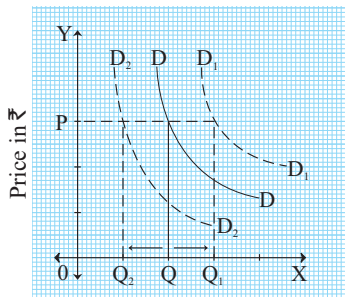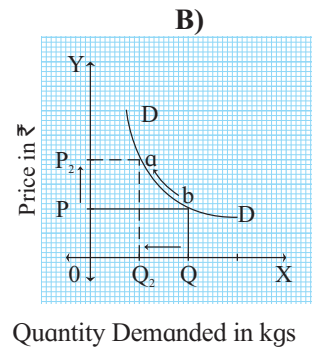

Quantity Demanded in kgs

1) Rightward shift in demand curve ....

2) Leftward shift in demand curve ....

3) Price remains ....

4) Increase and decrease in demand comes under..........

3) Explain the diagrams :

Quantity Demanded in kgs   Quantity Demanded in kgs

A)

1) Diagram A represents ...... in demand

2) In diagram A movement of demand curve is in ...... direction

B)

1) Diagram B represents .... in demand

2) In diagram B movement of demand curve is in ...... direction

Q. 6. Answer in detail :

1) State and explain the law of demand with exceptions.

2) Explain in detail the determinants of demand.

○○○