2. Demand & Supply Analysis

Q:1 :- Is demand and desire are same Concepts. Explain (2 M)

A] **Introduction**:- Generally we use the concepts desire and demand as Similar concepts. But in economics the term Demand is different from desire.

The term demand is well explained by Alfred Marshall to explain relation between demand and Price.

B] **Meaning**:- According to Marshall –

"Demand is a desire backed by ability and willingness to Pay for it".

C] **Formula** :- $\boxed{\text{Demand} = \text{a desire} + \text{Ability to Pay} + \text{willingness to Pay}}$

D] **Example** :- 1) A Poor Person have a desire to have a Car / bunglow but he donot have ability to Pay for it. Then it will remain desire only.

2) A Rich Person have a desire to have a Car / bunglow but he is not willing to Pay for it. then it cannot become a demand

Q:2

Q.2 Explain Individual Demand and Market Demand

Introduction:-

A] The concept of Individual demand and Market demand are explained by Alfred Marshall in his book - 'Principles of Economics' - 1890. He explained the relationship between demand and Price.

B] ~~Indiv~~ Meaning:- According to Alfred Marshall -
" Individual demand means the demand of single individual consumer at different - Price level during a Period of Time".

C] Individual Demand Schedule & Diagram :-

Price Per Orange	Qty. demanded
₹ 5	10
₹ 4	20
₹ 3	30
₹ 2	40
₹ 1.	50

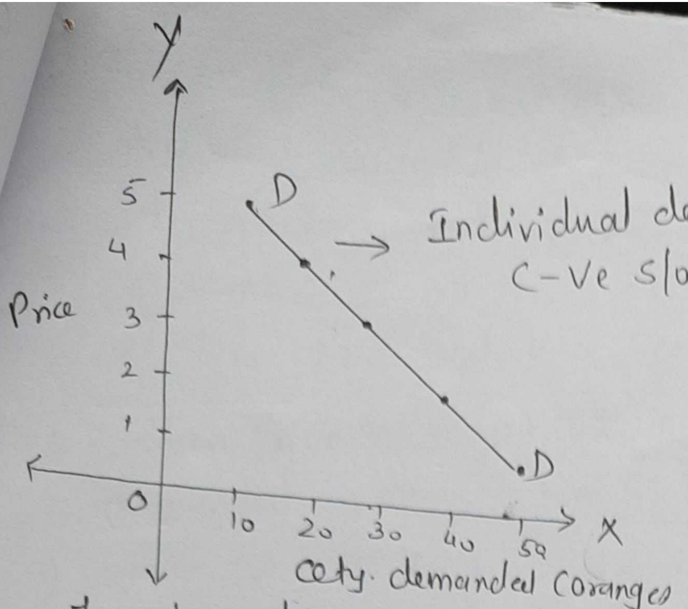
In above Schedule we observe -

1) More quantity is demanded at Less Price and low quantity is demanded at high Prices.

2) ~~At high~~ When Price is very high i.e ₹5, Limited quantity was demanded i.e 10 oranges only.

3) When Price is very low i.e ₹1, maximum quantity was demanded by consumer i.e 50 Oranges

It can be explained with the help of following diagram -



In above diagram we observe —

1) On X-axis quantity demanded and on Y-axis Price of commodity are shown.
2) DD is Individual demand curve sloping downwards from left to right.
3) As Price and quantity demanded have inverse relationship So it has Negative slope.

Q.3 Write Short Note on — Market Demand. (4M)

A] Introduction :- (same from Q: 2)

B] Meaning :- According to Alfred Marshall —

" Market demand means the demand of several/many consumers at different Price level during a Period of Time."

C] Market Demand Schedule and Diagram :-

Price Per Orange	Qty. demanded A	B	C	Total Market dd.
₹ 5	10	20	30	60
₹ 4	20	40	60	120
₹ 3	30	60	90	180
₹ 2	40	80	120	~~240~~ 240.
₹ 1	50	100	150	300

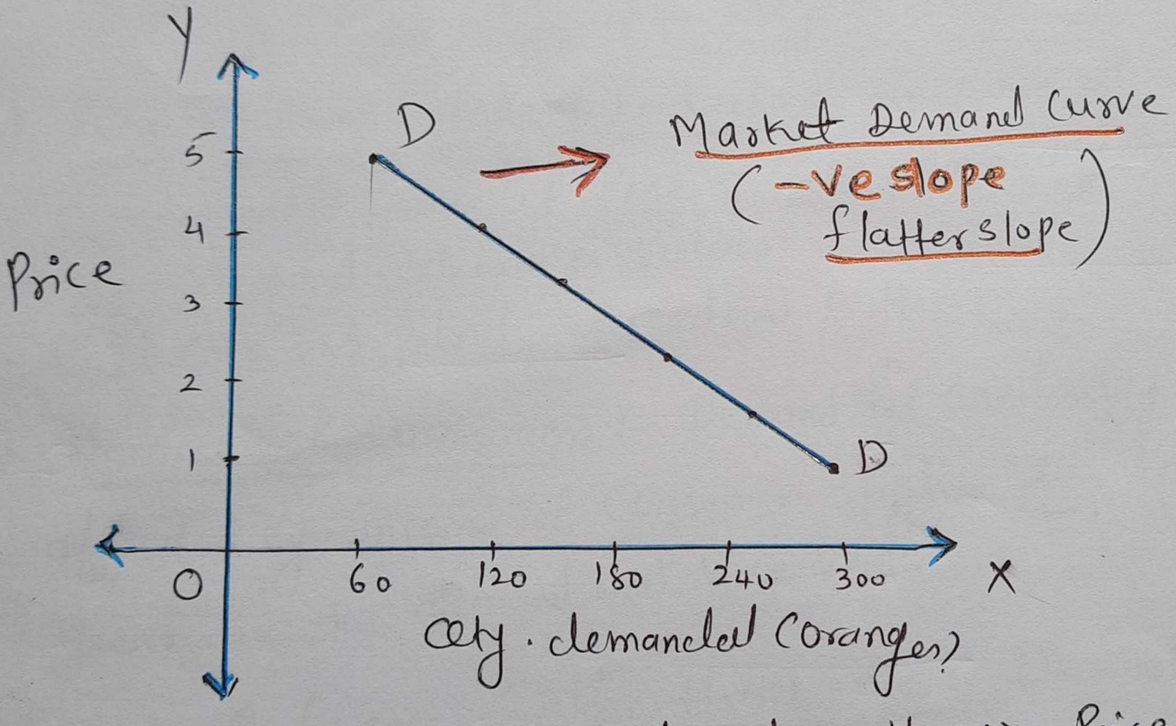
In above schedule we observe —

1) In market different consumers A, B, C have demanded different quantity of Oranges ~~at~~ ~~Pes~~ due to different income. But Behaviour of all the consumers is same i.e All have demanded more quantity at less Price and Vice Versa.

2) When Price is very high i.e ₹5, limited quanity is demanded in market i.e 60 oranges only.

3) When Price is very low i.e ₹1, maximum quantity is demanded in market is 300 oranges.

It is clear with the help of following diagram—



1) on X-axis, quantity demanded and on Y-axis Price of Commodity are shown.

2) DD is Market demand curve sloping downward from left to right.

3) As Price and quantity demanded have inverse relationship It has Negative slope.

4) As compare to Individual demand curve market demand curve have Flatter slope.

Q.5 Explain Law of Demand with Assumptions :-

A] Introduction :- The Law of Demand is developed by Alfred Marshall in his book - "Principles of Economics" in 1890. He explained inverse relationship between Price and Quantity demanded.

B] Statement of Law of Demand :-

According to Marshall -

1. "Other things being equal, more quantity is demanded at less Price and Vice Versa".

2. "Other things being equal, Price and Quantity demanded are inversaly related.

(C) Schedule and diagram :-

Price Per Orange	Qty. demanded
₹ 5	10
₹ 4	20
₹ 3	30
₹ 2	40
₹ 1	50

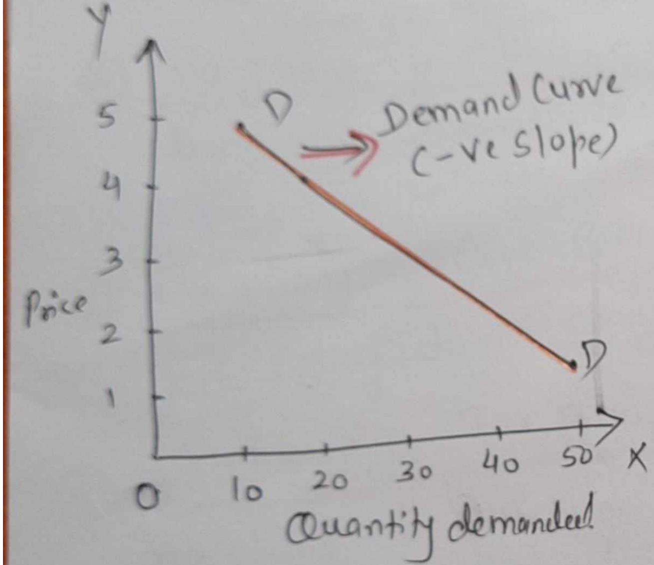
In above Schedule we observe—

(1) A Consumer demand more quantity at higher Price and less quantity at Low Price.

(2) when Price is Very high i.e ₹5, limited quanity was demanded by Consumer i.e 10 oranges only

(3) when Price is very low i.e ₹1, Maximum quantity was demanded i.e 50 Oranges.

It is clear with the help of following diagram:-



In above diagram:-

1) On x-axis Quantity demanded and Price on Y-axis are shown.

2. DD is Demand curve sloping downward from left to right.

3. As Price and Quantity demanded have inverse relationship So it has negative slope.

(D) Assumptions of the Law of Demand :-

The Law of demand is based on some conditions these are known as assumptions of Law. They are—

1. No Change in Price of Close Substitutes :- It is assumed that Price of close substitutes Should not change. Otherwise Law of demand will not applicable

(2) No Change in Income :- The consumer's income assumed to be constant. If income increases, the demand will increase and vice versa.

(3) No Change in Taste Preference and Fashion :- It is assumed that there is no change in Taste, Preference and Fashion otherwise Law of demand will not applicable.

(4) No Change in Future Expectation :- If consumer expects about future Price changes then law of demand will not applicable.

(5) No Change in Population Growth :- It is assumed that the size and composition of Population remain unchanged, otherwise Law will not applicable.

(6) No Change in Climate :- The change in climate will change the demand. So it is assumed that there is no change in Climate

(7) No Change in Govt. Policy :- It is assumed that the govt. Policy do not change, otherwise law will not applicable

(8) No Change in Tax Policy :- It is assumed that there is no change in direct or indirect tax as it will affect the Price and demand.

(9) No Change in Distribution of Income and wealth :- It assumed that there is no change in distribution of income and wealth otherwise law of demand will not operate.

(10) No Change in Technology :- A Change in Technology especially new Technology will effect the cost and Price. It will direct affect the demand.

(11) No Change in Advertisement and Salesmanship :- It is assumed that there is no change in Advertisement and Salesmanship otherwise Law of demand will not applicable

Q:7 Explain Law of Demand with Exceptions :- (9)

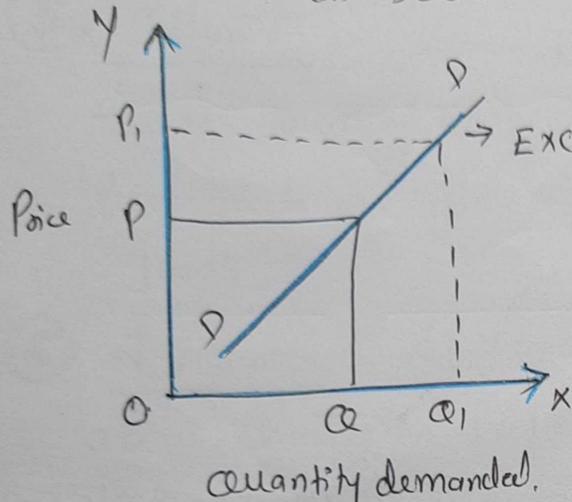
A] Introduction.
B] Statement of Law.
C] Schedule & diagram

} same from Q:6 → (4M)

D] Exceptions To the Law of Demand :- (4 m)

Law of demand is not applicable under some situations. These are called exceptions of the law of demand.

In such case demand curve is sloping upward shown as below :-



In above diagram we observe –

1. Exceptional demand curve is sloping upward from left to right.
2. Price and quantity demand have direct relationship. So it has positive slope
3. It is also known as Abnormal Demand curve

Following are Exceptions of the Law of Demand

1. Giffen Goods / Inferior Goods :- Sir Robert Giffen, an English economist explain Giffen Paradox. According to him In case of inferior goods, demand falls with fall in Price.
e.g - cheap Potatoes, Vegetable oil, bread etc.

2. Prestige Goods :- Law of demand is not applicable in case of Prestige goods. These goods are highly demanded by rich people to show off. e.g diamonds, gems etc

3) **Necessary Goods :-** In Case of necessary goods if Price changes, demand ~~manu~~ maynot change Very much.
e.g Salt, Sugar, Petrol etc.

4) **Quality / Branded goods :-** If consumer gets Satisfaction with Quality or branded goods then even at high Price he will demand more.
e.g

5) **Illusion :-** Some People have Price illusion. They think quality of highPrice goods is better and low Price goods are Poor. So they demand more highPrice goods.

6) **Ignorance :-** If consumer is ignorant or Unaware about change in Price than demand will remain unchanged. Hence law of demand is applicable.

7) **Fashion :-** In case of New fashion, People demand more even at high Price.
In case of Old fashion outdated goods, People demand less even at low Price

8) **Share Market :-** In case of Share market law of demand is not applicable. People demand more at high Price and less at low Price.

9) **Consumers Future Expectations :-** If People expect a fall in the Price of goods in near future, they buy less in Present. Thus law of demand is not applicable when consumer expect future Prices

10) **Demonstration effect :-** Here low income Group (Poor) People imitate Higher income Group (rich People). They demand more at high Price due to Snob effect.

(11) **Bandwagon Effect** :- Some People get influed by Filmstars, Crickets, Friends etc. So they buy more at high Price. It is called bandwagon effect.

(12) **Advertisement effect** :- Due to advertisement and Salesmanship People buy more even at high Price.

Q:8 Explain Changes / shift / Movement in demand.

Ans

Shift / Movement in Demand

- (A) Variation in dd
  - 1. Expansion in dd
  - 2. Contraction in dd.
- (B). Changes in dd
  - 1. Increase in dd
  - 2. Decrease in dd.

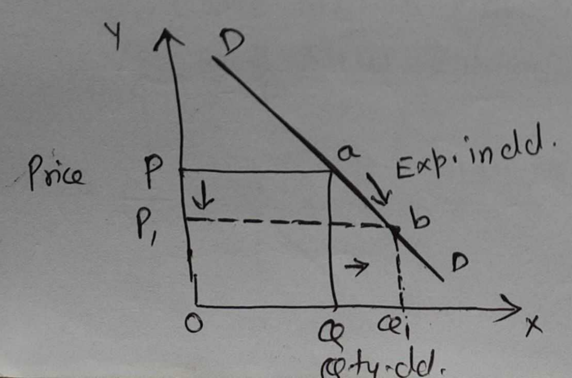
(A) Variation in demand :-

"When change in demand is found due to change in Price is known as Variation in demand".

It is of Two types—

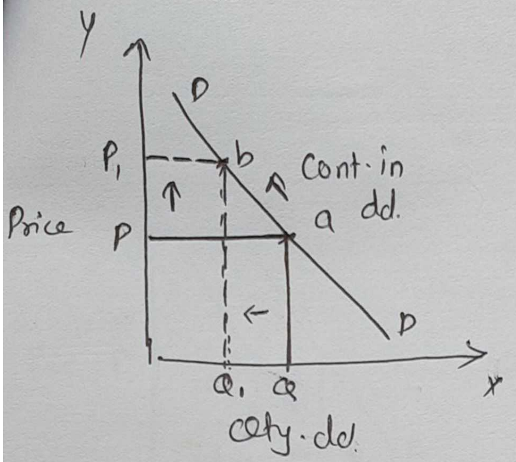
1. Expansion in demand.
2. Contraction in demand.

1. **Expansion in demand** :- "When More Quantity is demanded due to Fall in Price is known as Expansion in demand".



1. Expansion in demand is shown on Same demand curve.
2. It is Sloping downward from left to right.

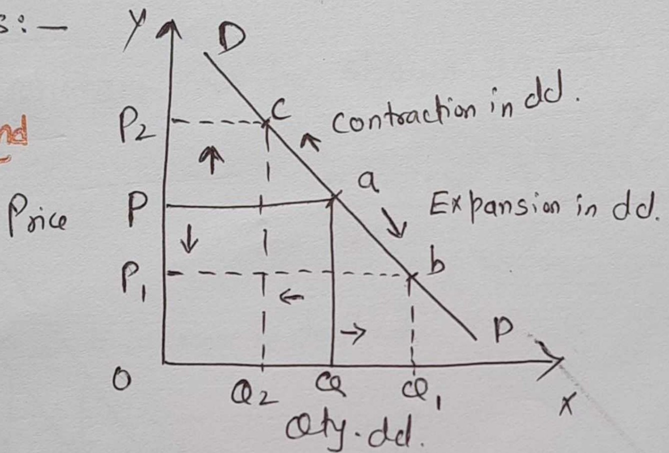
(2) **Contraction in demand :-** "When less Quantity is demanded due rise in Price is known as Contraction in demand".



1. Contraction in dd is shown on same demand curve.
2. It is sloping upward from right to left.

Both the changes can be shown in one diagram as follows:-

Variation in Demand →



(B) **Changes in demand :-**

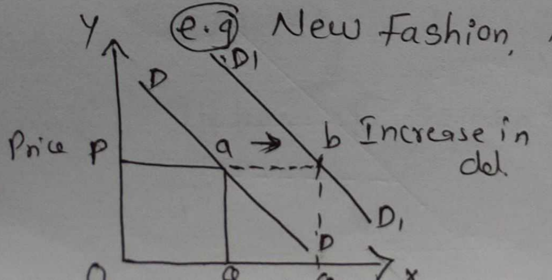
"When change in demand is found due to change in Factors but Price remain constant is known as Changes in demand".

It is of two types—

1. Increase in demand.
2. Decrease in demand.

1. **Increase in demand :-** "When more Quantity is demanded due to change in Factors but Price remain constant is known as Increase in demand".

e.g. New Fashion, New Technology, Increase in Income etc.



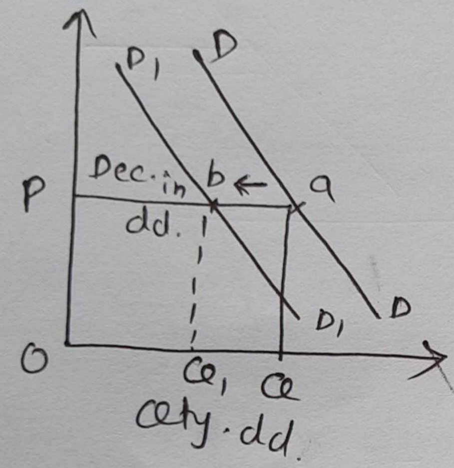
1. ~~It is shown~~ DD is original dd curve and D_1D_1 is New Demand curve
2. New demand curve is shifted on right side of original dd curve

(2) Decrease in demand :-

13

" When Less Quantity is demanded due to Change in Factors but Price remain Constant is known as Decrease in demand ".

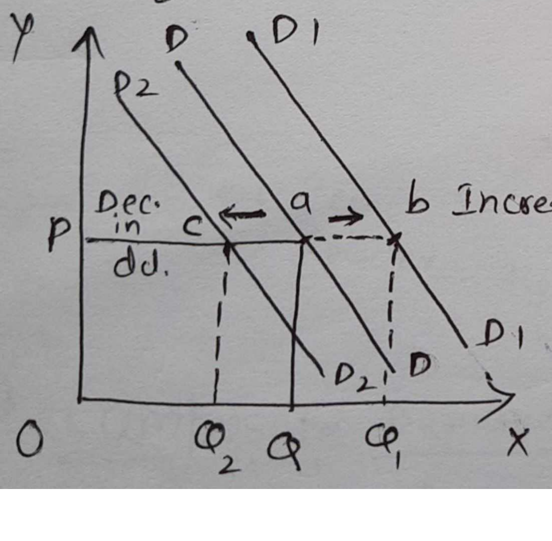
(e.g) Old Fashion, Change in Climate, Govt. Policy etc.



1. DD is original demand curve. and D_1D_1 is New demand curve.
2. It is Shifted on left side of Original demand curve

Both the Changes can be shown in one diagram as follows :-

Changes in Demand



Q.4 Short Note on Individual supply (4m)

(A) Introduction :- The concept of Individual supply, market supply was developed by Alfred Marshall in his book – 'Principles of Economics' in 1890. He explained direct relationship between Price and Quantity Supply

(B) Meaning :-

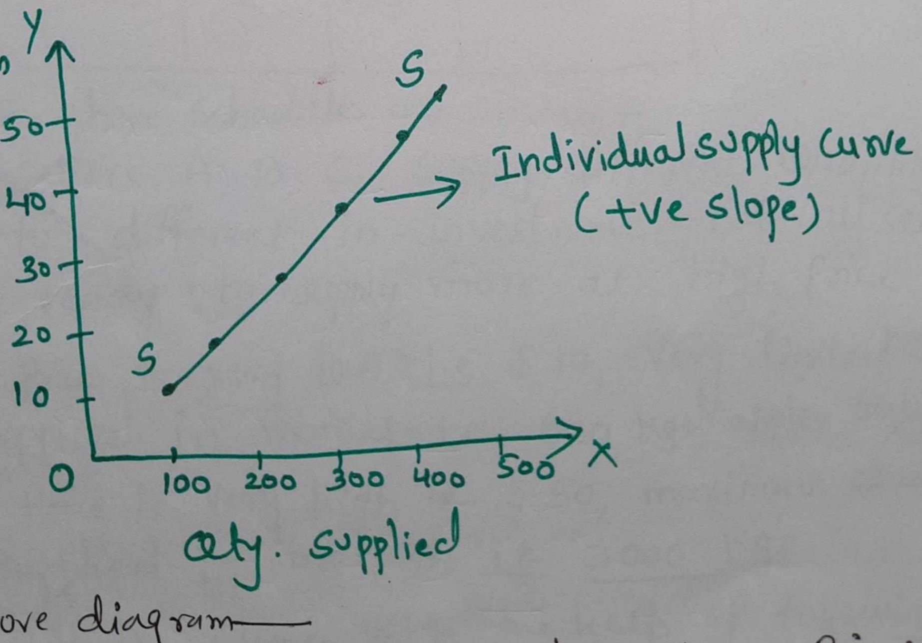
" Individual supply means supply of Single seller at different Prices during a Period of time"

(C) Schedule and Diagram :-

Price Per Apple	Qty. Supply (in kgs.)
* ₹ 10	100
₹ 20	200
₹ 30	300
₹ 40	400
* ₹ 50	500

1. In the above Schedule we Observe that individual Seller is ready to supply more at high Price
2. when Price is very low i.e ₹ 10, he supplied limited Quantity i.e 100 kg. only
3. when Price is very high i.e ₹ 50, maximum Quantity is Offered For Sale i.e 500 kgs.

Diagram



In above diagram

1) On X-axis Quantity supply and on Y-axis Price of Commodity are shown.

(2) SS is Individual supply curve sloping Upward from left to right.

(3) As Price and supply have direct relationship so it have Positive slope

Q:5 Short Note -> Market supply (4m)

(A) Introduction - Same (Q:4)

(B) Meaning :- Marshall —

" Market supply means supply of Several Sellers at different Prices during a Period of time "

(C) Schedule and Diagram

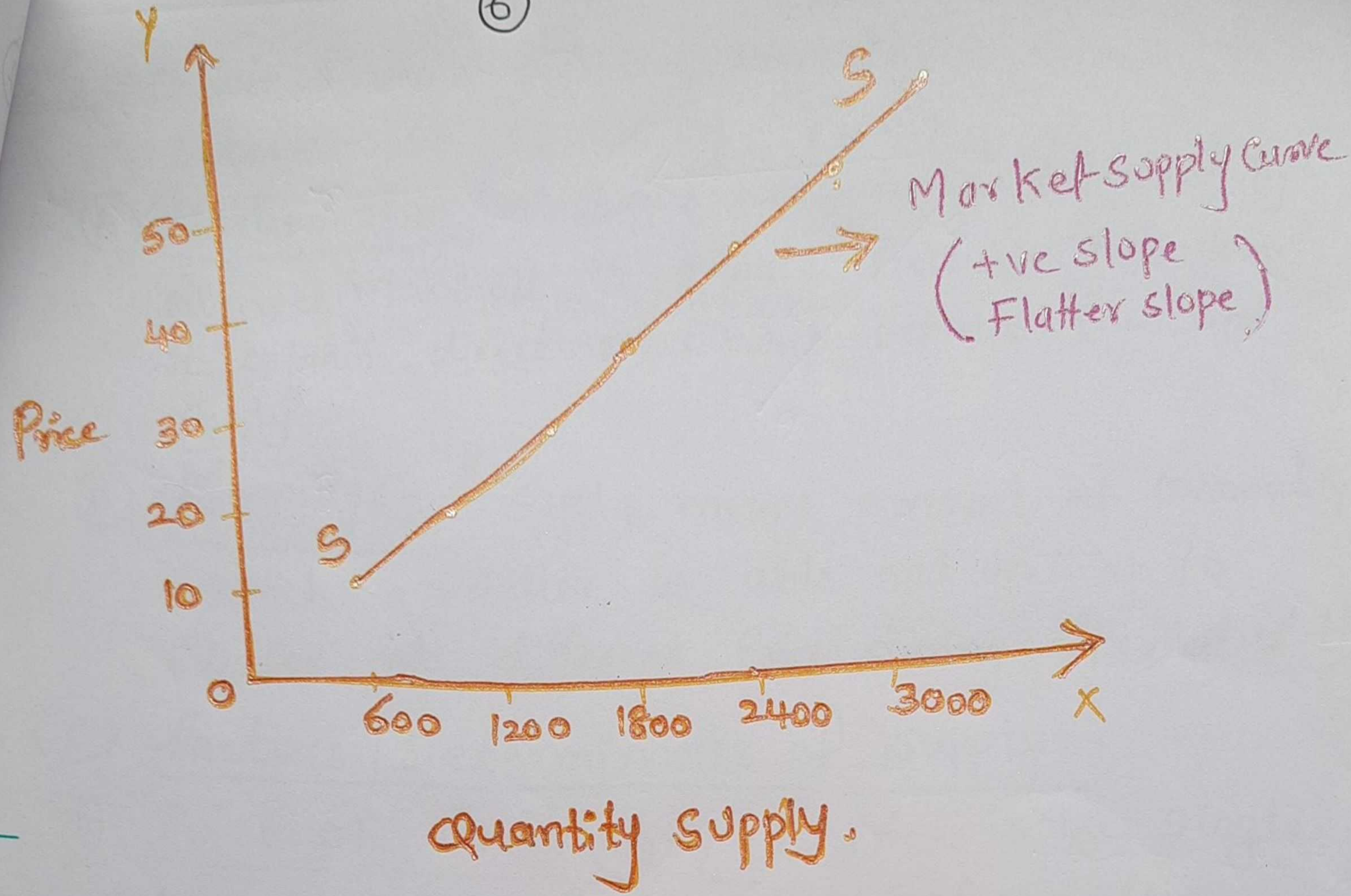
Price per Apple	Qty. supply			Total market supply
	A	B	C	
* ₹ 10	100	200	300	600
₹ 20	200	400	600	1200
₹ 30	300	600	900	1800
₹ 40	400	800	1200	2400
* ₹ 50	500	1000	1500	3000

(1) In the above Schedule we observe -
Three sellers A, B, C supply different quantity due to different in Investment. But all sellers are ready to supply more at high Price

(2) When Price is very low i.e ₹ 10, very limited quantity is supplied in market i.e 600 kgs. apples only.

(3) When Price is very high i.e ₹ 50, maximum quantity is supplied in market i.e 3000 kgs.

It is clear with the help of following diagram —



1) On X-axis Quantity supply and on Y-axis Price of commodity are shown.
2) SS is Market supply curve sloping Upward From left to right.
3) As Price and supply have direct relationship so it has Positive slope.
4) As compare to Individual supply curve, market supply curve has Flatter slope.

Q:1 Explain Law of Supply with Assumptions? (8m)

Ⓐ Introduction :- The Law of supply was explained by Alfred marshall in his book 'Principles of Economics' in - 1890. He explain Producer behaviour in market

Ⓑ statement of Law:- According to marshall-

1) "Other things being Constant, Supplier is ready to supply more at higher Price and Less Quantity at low Price".

2) " Other things being constant, Price and supply are directly related.

Ⓒ Schedule and Diagram

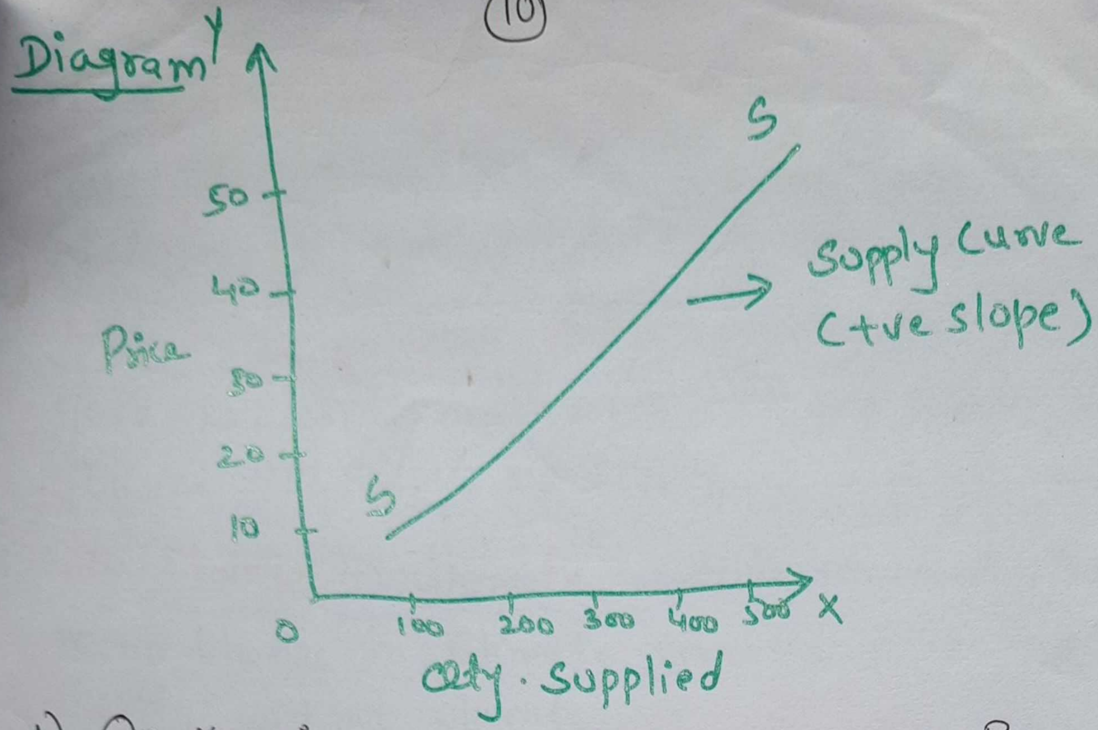
Price Per Apple	Qty. supply (in kgs.)
* ₹ 10	100 kgs
₹ 20	200 kgs
₹ 30	300 kgs
₹ 40	400 kgs
* ₹ 50	500 kgs

1) In above Schedule we Observe that every seller is ready to supply more at high Price and Vice Versa.

2) when Price is very low i.e ₹10, Limited Quantity is offered for sale i.e 100 kgs of Apples only

3) when Price is very high i.e ₹50, then seller is ready to supply maximum quantity i.e 500 kgs.

Diagram:



1) On x-axis Quantity supply and y-axis Price of Commodity are shown.
2) SS is supply curve sloping upward from left to right
3) As Price and supply have direct relationship, so it have positive slope.

(D) Assumptions of Law of supply :- (4m)

Law of supply is based on some conditions, these conditions are called Assumption of law. They are :-

1) **No change in Price of Substitutes** :- It is assumed that there is no change in Price of other related goods i.e substitute goods. Otherwise Law of supply will not applicable.

2) **No change in Cost of Production** :- Marshall assumed that there is no change in cost of Production. If cost of Production increase than its Price will also rise and Law will not applicable

3) **No change in state of Technology** :- If Producer change technique of Production, the cost will be reduced. So it is assumed that Technology should not be changed.

4. **No Change in Transport cost** :- The transport costs is assumed to be constant otherwise Law of supply will not applicable.

5. **No change in Govt. Policies** :- Marshall assumed that govt. Policies do not change. e.g. Govt policies, Tax Policies will affect on supply.

6. **No Change in Climate** :- It is assumed that there is no Change in Climate conditions other wise Law of supply will not operate.

7. **No Change in Sellers Expectation** :- Sellers expectations about Future Prices also affect the supply. So it is assumed that there in no change in Sellers Expectations about Future Prices.

8. **No Change in Self Consumptions** :- It is assumed that Producer do not Change Quantity kept aside For self consumption Otherwise Law of supply will not applicable.

9. **No Change in Goal of Producer** :- Marshall assumed that Goal of Producer remain constant other Supply will be affected.

10. **No Change in Scale of Production** :- It is assumed that Scale of Production remain constant.. Any change in scale of Production will change the supply.

11. **No change in Natural and Other Resources** :- Marshall assumed that there is no change in availability of natural and other resources Otherwise Law of supply will not applicable.

12. **No Speculation** :- Speculation will always affect the supply. So it is assumed that there is no speculation, hoarding, black-marketing etc.

13 **No change in Nature of market** :- It is assumed that nature of market remain fixed otherwise Law of supply will not operate

14 **No change in Export & Import** :- It is assumed that Export and Import remain fixed otherwise Law of supply will not operate

Q:8 Explain Law of Supply with Exceptions? (8m)

A] Introduction
B] statement of law
C] schedule & diagram

(4m) Same Q: 7

D] **Exceptions of Law of supply** (4m)

The Law of Supply do not applicable in some conditions. These conditions are called Exceptions. They are →

1. **Labour Supply** :- Law of supply do not applicable in case of Labour. When wages of Labour rises, the labour would wish to work for more and more hours. But after some time he gets tired and he will try to work less at high wages.

For Example

Wage Rate ₹	Supply of labour Hours	Total wages
₹ 100	8 Hours	₹ 800
₹ 200	10 Hours	₹ 2000
₹ 300	8 Hours	₹ 2400

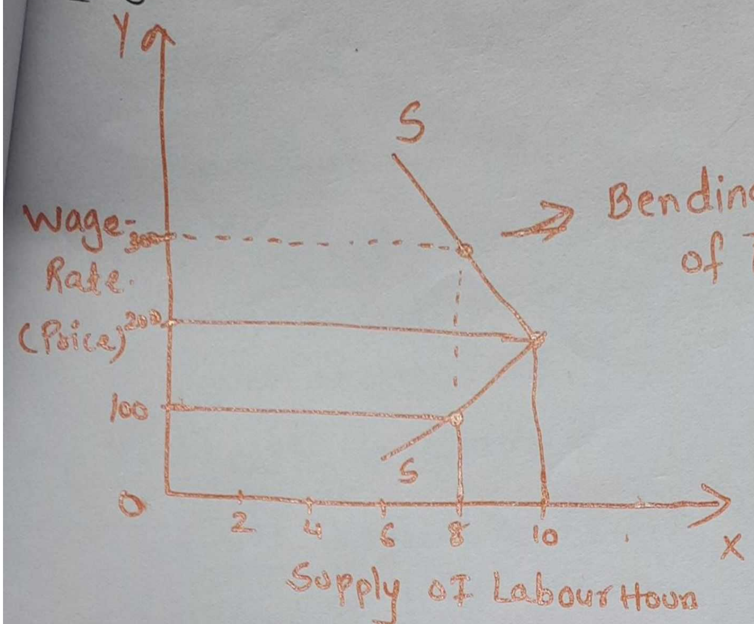
In above table we Observe —

1) Labour is ready to work for 8 hours at ₹ 100.

2) As wage rate rise to ₹ 200, he is willing to work more for 10 Hours

3) But as wage Rate rise to ₹ 300, he Prefer to work less for 8 Hours

Diagram



i) SS is Bending Supply Curve of Labour.

ii) At initial stage it is sloping upward from left ~~lat~~ to right

iii) But after some time it start bending backward from right to left

2) Saving :- Law of supply do not applicable in case of saving because majority of persons prefer to earn fixed income.

Example :-

A Person invest ₹ 10,000 @ 10% to earn ₹ 1000 as Interest. If Rate of Interest increase to 20%, then Person will invest ₹ 5000 to earn ₹ 1000 as Interest. Rest ₹ 5000 he will enjoy for present consumption.

3) Need for cash :- When seller is in need of cash then he will try to sell more at Low Price

4) Self consumption :- If the seller need more goods for self consumption, then he ~~so~~ will supply Less even at high Price.

5) Future Expectation :- The Law of supply do not applicable in case of seller's future expectation.

e.g. If seller expect rise in Price in near future then will reduce its supply.

6. Hoarding :- Law of Supply do not applicable in case of Stocking or Hoarding. Here Seller may hoard the stock and reduce the supply even at high Price

7. Perishable Goods :- Perishable goods like - Fruits, Vegetables, Flowers, Fish etc cannot store For long time. So the Seller will try to sell more even at Low Price

8. Agricultural Goods :- Law of supply do not applicable in case of Agricultural Crops and Cereals. Seller will try to supply agricultural goods even at low Price because it cannot stored For long Period.

9. Rare Goods :- The supply of rare goods are Fixed in Quantity. So its supply cannot increase even at high Price

e.g. Rare Pictures, Old Paintings, old stamps, Old Statues of Gods, Vintage cars etc.

10. Old Fashion :- In case of old fashion and outdated goods Law of Supply do not applicable. Here Seller will supply more even at low Price.

11. Recession :- During recession or depression Purchasing Power of People normally reduced. Here Seller has to supply more at low Price.

Q:5

Q:5 What is Equilibrium Price? How Equilibrium Price is determined Under Perfect Competition? (4M)

Ans. A] Introduction
B] Meaning } Q:3

C] Equilibrium Price :-

" The Price at which demand for commodity is equal to its Supply is known as Equilibrium Price."

Under Perfect Competition, there will be only one Uniform Price which is called Uniform Price"

D] Example :- According to Marshall

" Just as two blades of scissors are required to cut the cloth, Similarly two forces of demand and supply are required to determine Price the market".

E] DETERMINATION OF EQUILIBRIUM PRICE :-

Under Perfect competition, equilibrium Price is determined by interaction of demand and supply forces mple :-

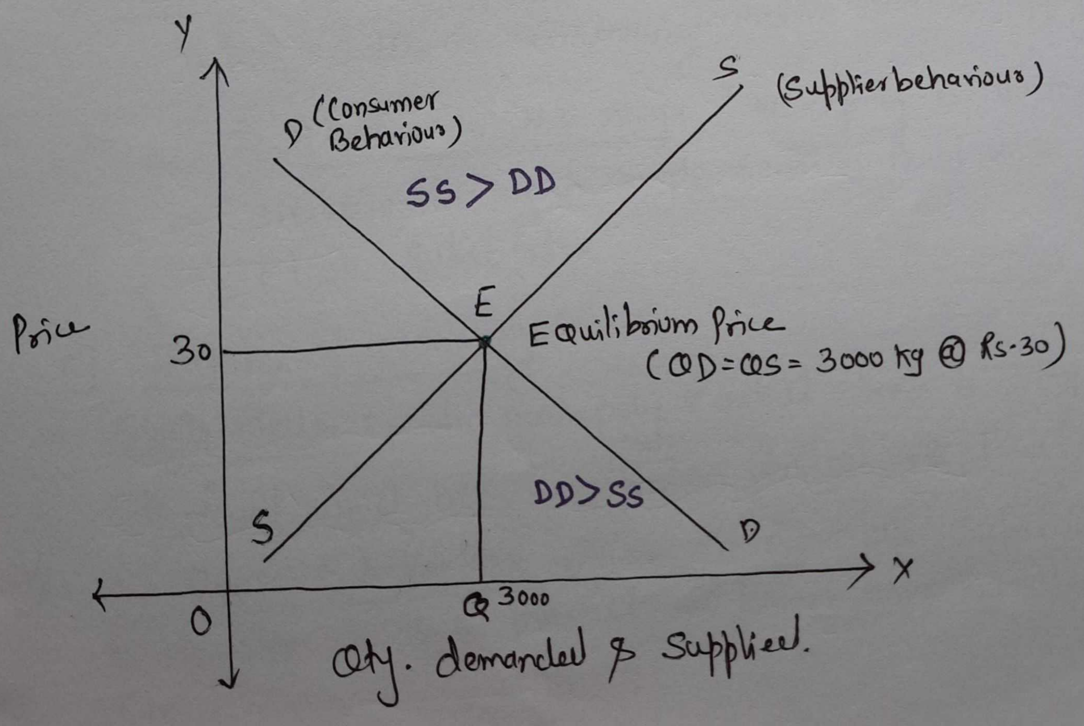
Example

Market demand and supply Schedule

Price of Commodity	Qty. demanded (in kgs)	Qty. supplied (in kgs.)
Rs. 50	1000	5000
Rs. 40	2000	4000
Rs. 30	3000	3000 Equilibrium Price = QD = QS
Rs. 20	4000	2000
Rs. 10	5000	1000

From above Schedule we Observe :-

1) Consumer Behaviour and Supplier behaviour is Observed in above table.
2) As Price decreases, consumer demands more quantity and Supplier is ready to supply less quantity.
3. But at Price Rs. 30 Quantity demanded is equal to Quantity supplied. This is known as Equilibrium Price. This is more clear with the help of following diagram.



(8)

In above diagram –

1) On X-axis Qty. demanded and supplied is shown and on Y-axis Price of commodity is shown.

2) DD is market Demand Curve sloping down ward from left to right.

3) It shows inverse relationship between Price and Quantity demanded, so demand Curve has negative slope.

4. SS is Market supply curve sloping upward from left to right.

5, It shows Direct relationship between Price and Quantity Supply, So Supply Curve has Positive slope.

6) Demand Curve intersect supply Curve at Point E, it is known as Equilibrium Price.

7. At Equilibrium Price QD = QS = 3000 kgs at Rs. 30.

Supply Analysis

Q- Explain Shift / Movement in supply.

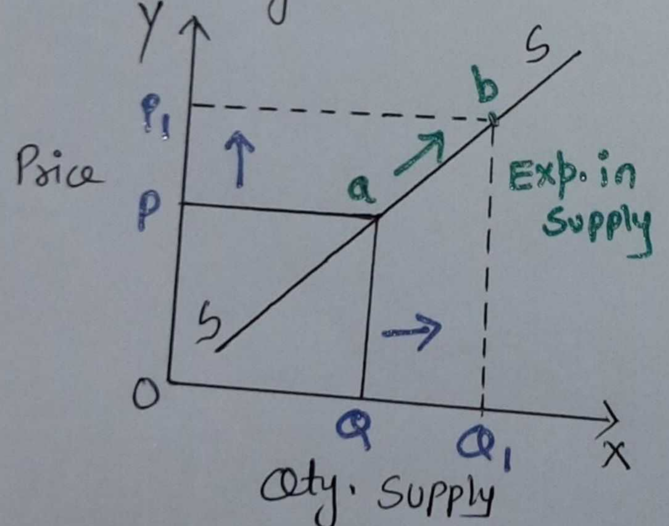
Shift / Movement in supply

- (A) Variation in supply
  - 1. Expansion of Supply
  - 2. Contraction of Supply
- (B) Changes in supply
  - 1. Increase in Supply
  - 2. Decrease in Supply.

(A) Variation in Supply :- "When Change in quantity Supply is found due to Change in Price is called Variation in Supply"

It is of Two types—

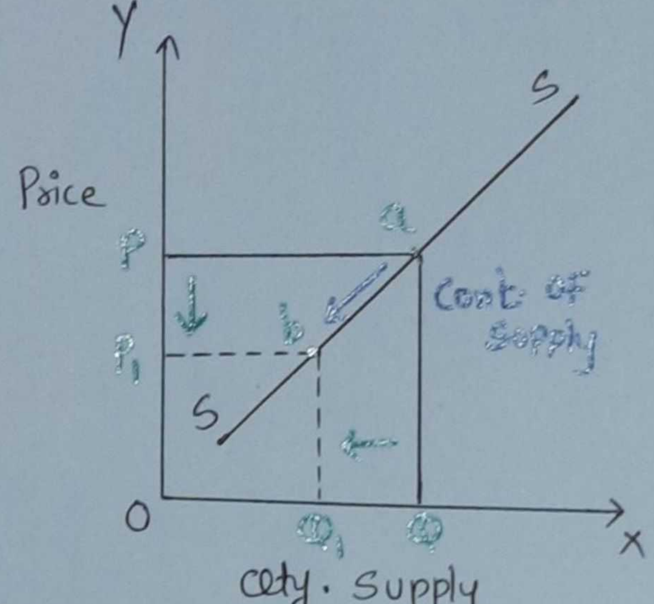
(1) Expansion of Supply :- "When more quantity is Supplied due to Rise in Price is called Expansion of Supply"



1) Expansion in supply is sloping Upward from left to Right

2) It can be shown on Same Supply Curve

(2) Contraction of Supply :- "When Less quantity is Supplied due to Fall in Price is called Contraction of Supply".

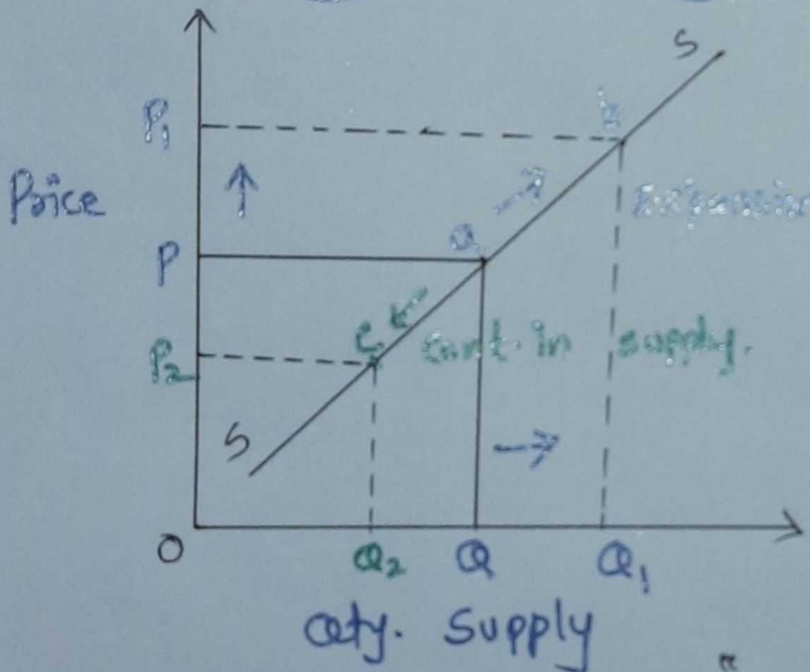


1) Contraction of supply is sloping downward from Right to Left.

2) It is shown on same supply curve.

Both the changes can be shown in one diagram.

Variation in supply

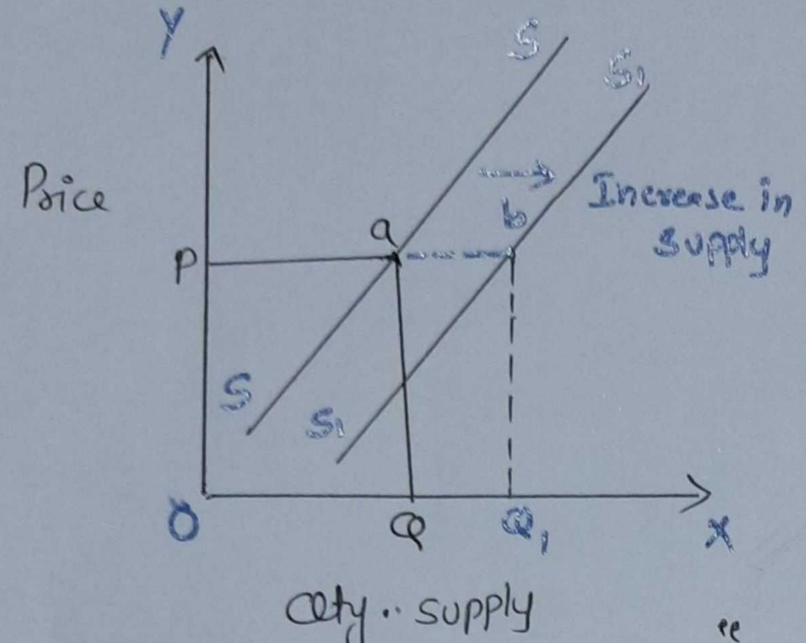


(B) **Changes in supply :-** "when change in quantity supply is found due to change in factors but price remain constant is called changes in supply"

It is of two types—

(1) **Increase in supply :-** "When more quantity is supplied due to change in factors but price remain constant is called increase in supply"

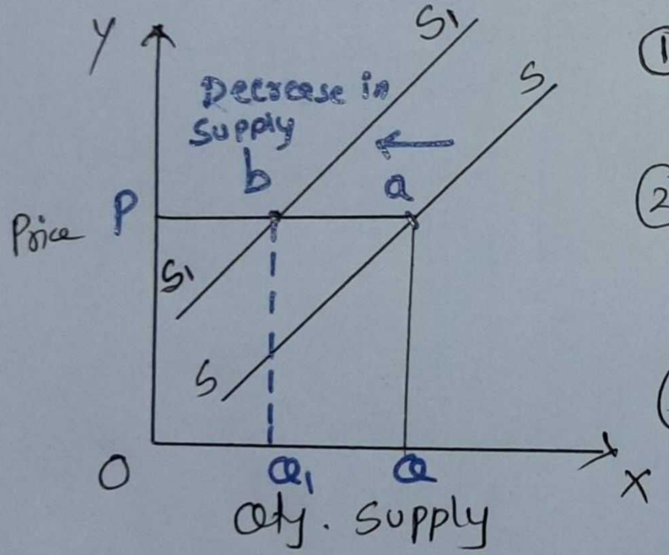
(e.g) i) New Technology
(ii) Favourable climate etc.



1) SS is Original supply curve and S_1S_1 is Increase in Supply curve
2. It is Shifted on <u>Right</u> Side of Original supply curve
3) It can be shown on <u>New</u> Supply Curve

② <u>Decrease in Supply</u> :- "When <u>Less</u> Quantity is supplied due to Change in <u>Factors</u> but Price remain Constant is called Decrease in supply."

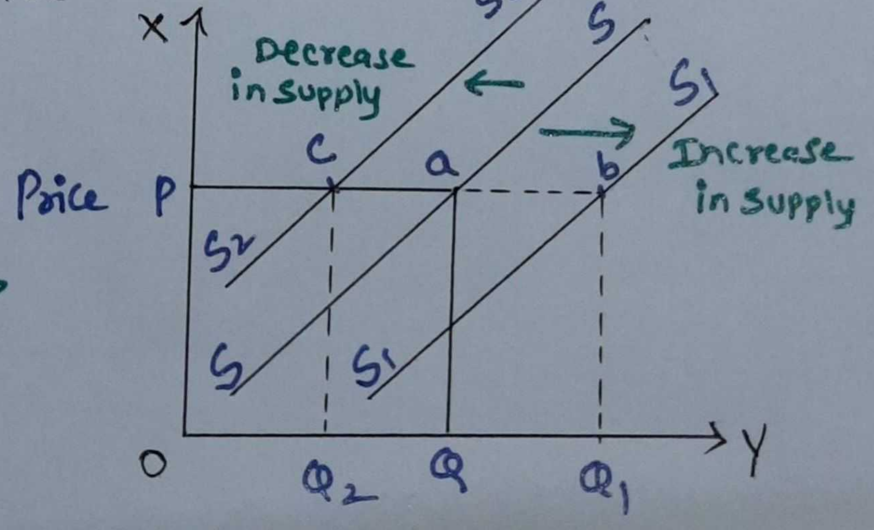
(e.g) i) High Cost of Production
ii) High Taxes
iii) More for Self Consumption. etc



① SS is Original supply curve and S_1S_1 is Decrease in supply curve.
② Decrease in supply is Shifted on <u>Left Side</u> of Original supply curve.
③ It Can be shown on <u>New Supply</u> Curve

Both the Changes can be shown in One diagram :—

<u>Changes in Supply</u> →



Shift | Movement in supply

Ⓐ Variation of supply

1. Expansion of supply
2. Contraction of supply

Ⓑ Changes in supply

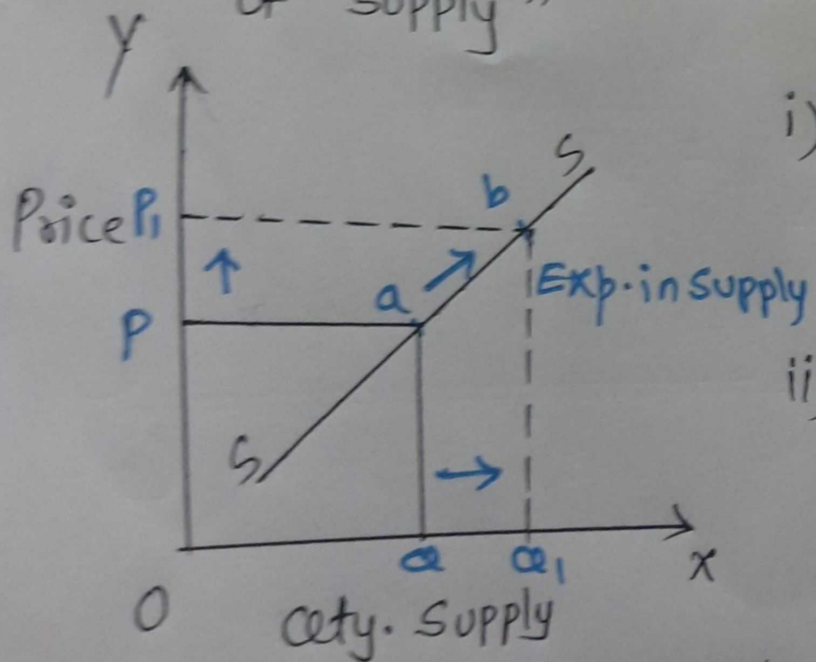
1. Increase in supply
2. Decrease in supply

Ⓐ Variation of supply :-

"When change in Quantity supply is found due to change in Price is called Variation in supply"

It is of Two types —

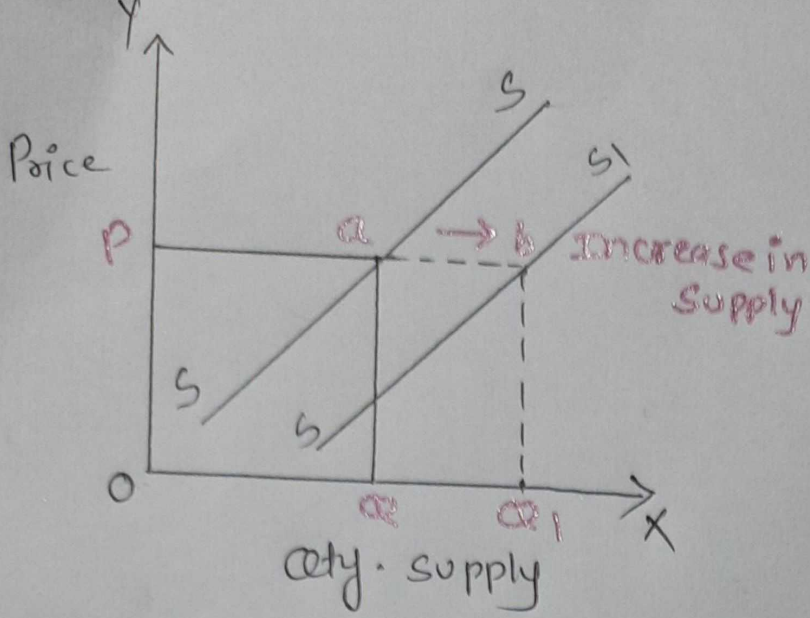
① **Expansion of supply :-** "When more Quantity is supplied due to Rise is Price is called Expansion of supply"



i) Expansion in supply is sloping upward from left to right.

ii) It can be shown on same supply curve.

② **Contraction of supply :-** "When Less Quantity is supplied due to Fall in Price is called Contraction of supply"

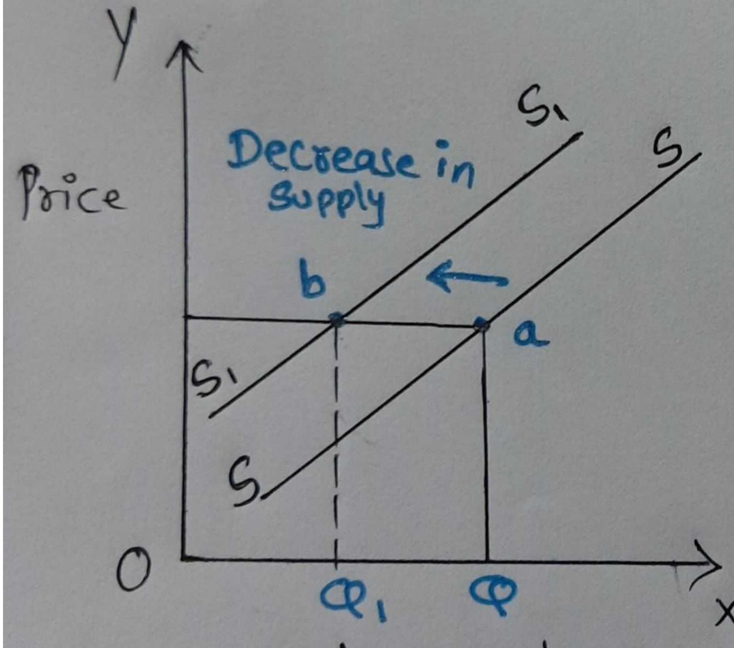


i) SS is Original Supply Curve and S_1S_1 is Increase in Supply Curve.

ii) It is Shifted on Right side of Original Supply Curve.

iii) It can be shown on New Supply Curve

(2) Decrease in Supply :– "When Less Quantity is Supplied due to change in Factors but Price remain Constant is called Decrease in Supply"



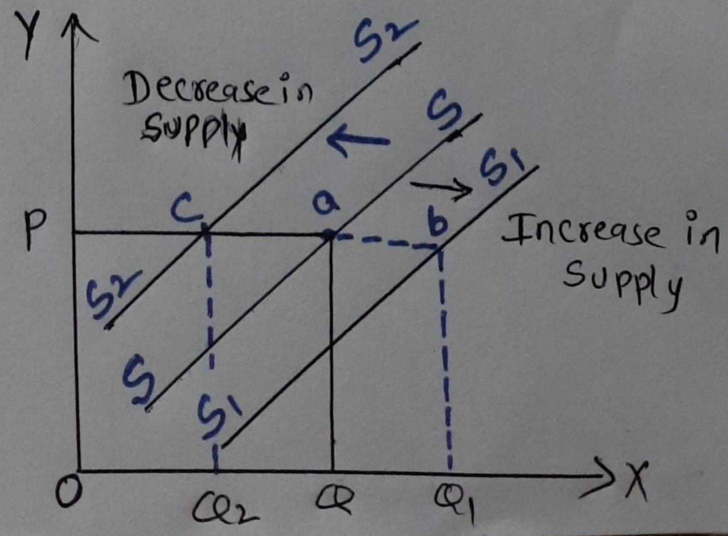
i) SS is Original Supply Curve and S_1S_1 is Decrease in Supply Curve

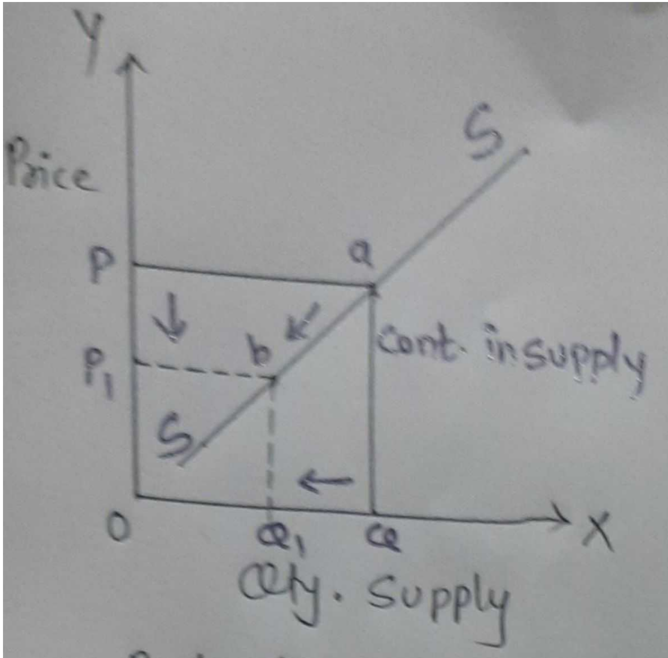
ii) It is shifted on Left Side of Original supply curve

iii) It can be shown on New supply curve

Both the Changes can be shown together.

Changes in supply →

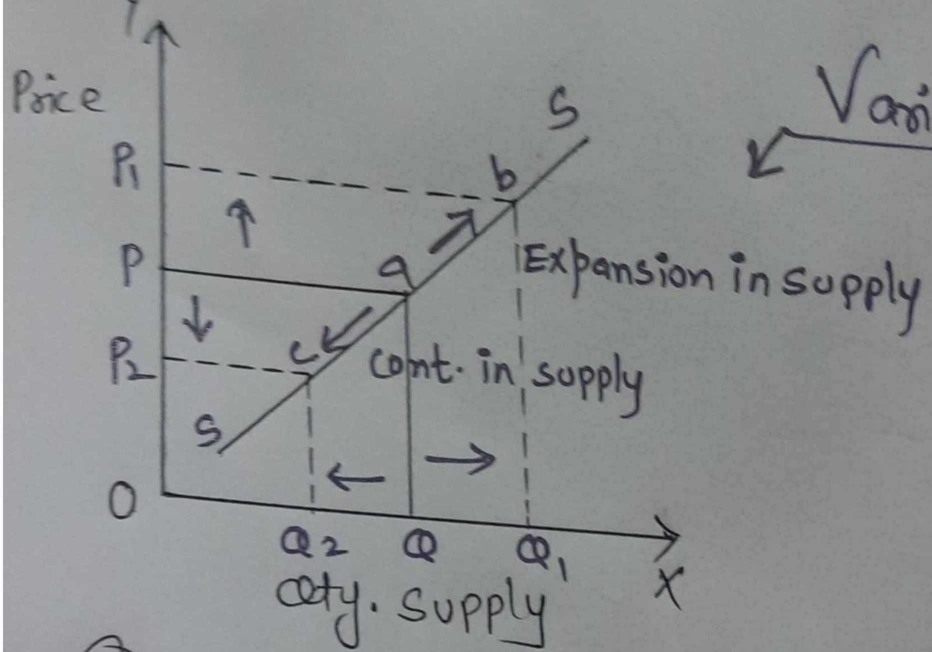




i) Contraction of supply is sloping downward from Right to Left.

ii) It can be shown on Same Supply Curve

Both the Changes Can be Shown as Follows



Variation in supply

(B) Changes in Supply :- "When Change in supply is found due to change in Factors but Price Remain Constant is called Changes in supply."

It is of Two types —

(1) Increase in Supply :- when more quantity is supplied due to change in Factors but Price remain Constant is called. Increase in supply"

e.g 1. New Technology
2. Low Taxes etc