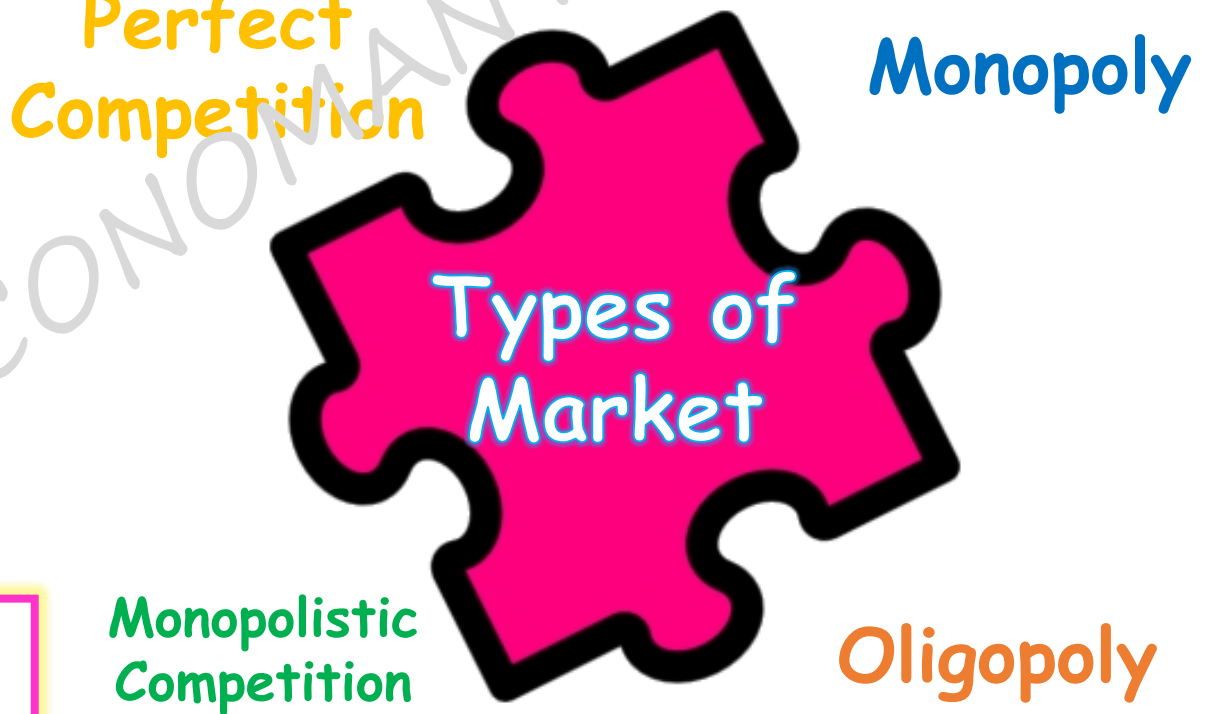
CAFC LMR – Price Determination under different Markets

Meaning:

Market refers to an arrangement through which buyers and sellers strike a deal / bargain a product or service for a price.

Market

Buyer & Sellers
Goods & Services
Price
Market Knowledge



Classification of Markets

1. Local Area Market : Perishable good example Milk , Eggs

2. Regional Market : Semi Durable goods example Shoes , Shirts

3. National Market : Industrial goods example plant & Machinery

4. International Market : High value goods (Expensive)
   example Gold , Silver , Oil etc

5. Very Short Period Market : Supply cannot be changed
6. Short Period Market : Supply can be changed but limited
7. Long Period Market : Supply can be changed but unlimited
8. Very Long Period Market : Known as Secular Period Market

Classification of Markets

9.Wholesale Market : Goods are sold in Bulk

10.Retail Market : Good are sold to ultimate consumers.

11.Regulated Market : Market which comes under Government control. Example Stock Market (SEBI), IRDA ,TRAI etc

12.Spot Market : Transaction done on the spot.

13.Forward/Future Market : Transactions done in near future. Example Credit Transactions.

Concept of Time Element was given by Alfred Marshall

Note : Today all classification has become outdated as in modern days even perishable goods have international market.

Revenue Concepts

1. Total Revenue (TR) : Price x Qty (10*20 = 200)

2. Average Revenue (AR) : Revenue earned after selling per unit AR=TR/Q (200 / 20 = 10)

PRICE = AR = DD (applicable in all markets)

3. Marginal Revenue : Additional revenue earned by selling one additional unit.

$\Delta TR / \Delta Q$

Calculate MR when elasticity is given

$$MR = AR \times \frac{e - 1}{e}$$

e = 1 MR Zero

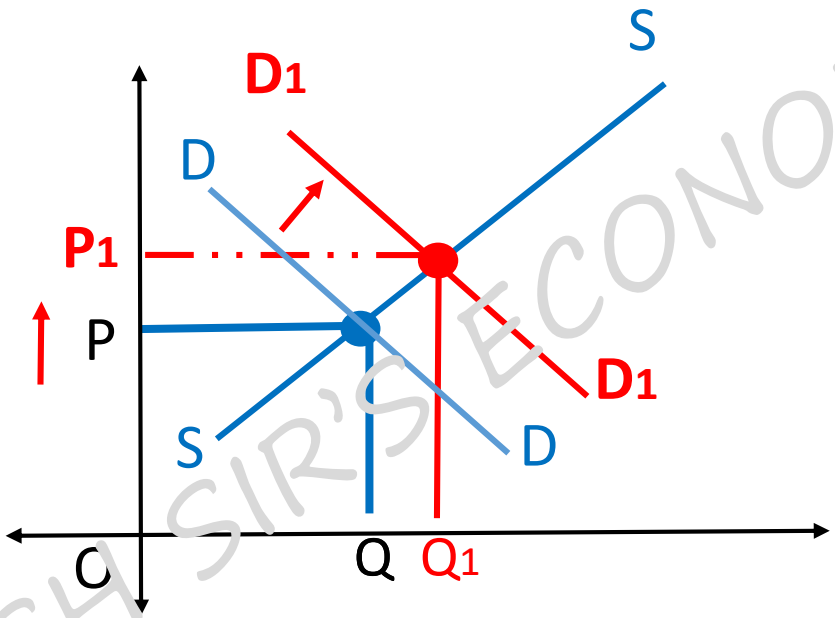
e > 1 MR Positive

e < 1 MR Negative

EQUILIBRIUM PRICE

(Effect of change in DD & SS on Equlibrium Price & Qty)

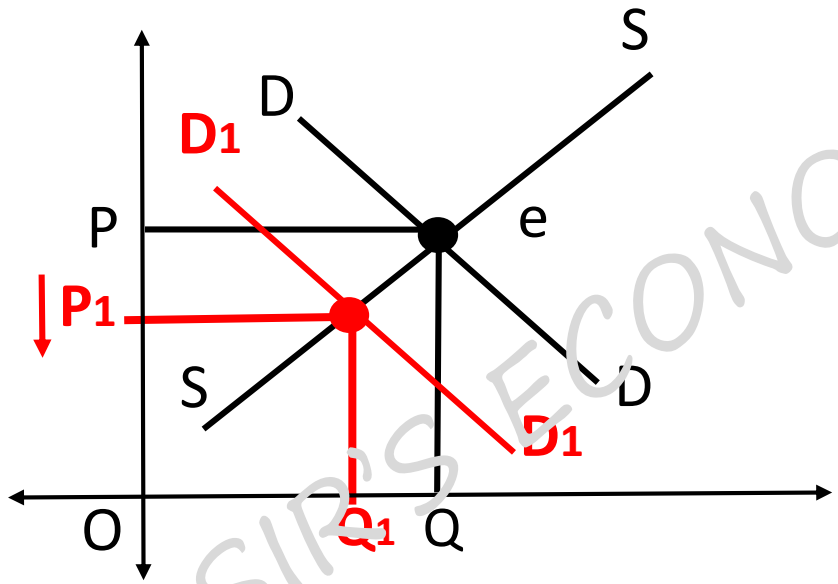
1. Demand More Supply Constant (DD Curve to right)



Qty DD rises Price Rises

EQUILIBRIUM PRICE

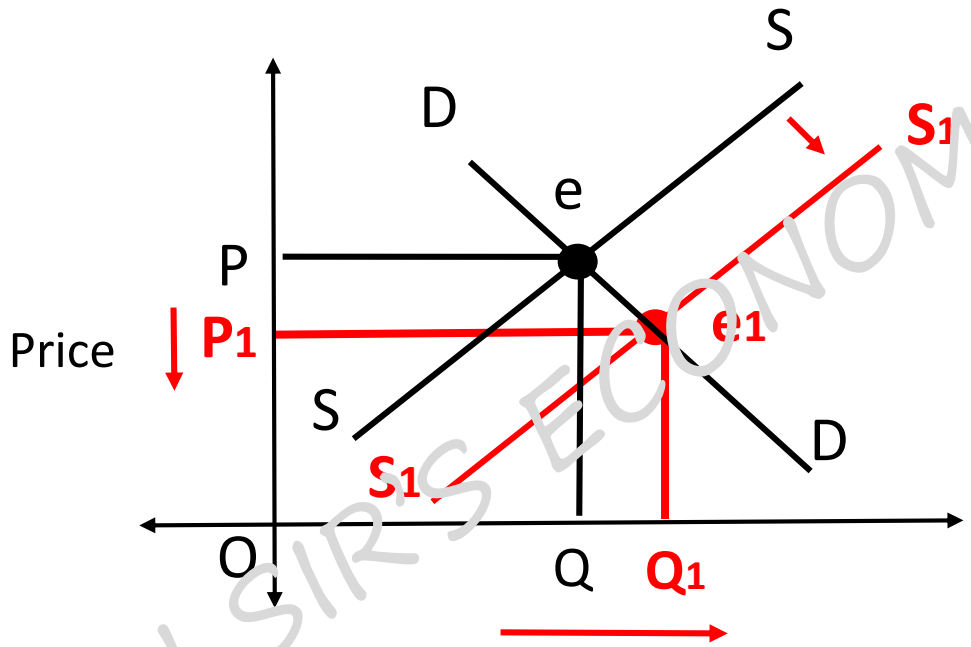
2.Demand Less Supply Constant (DD Curve to left)



Q'ty DD falls Price also falls

EQUILIBRIUM PRICE

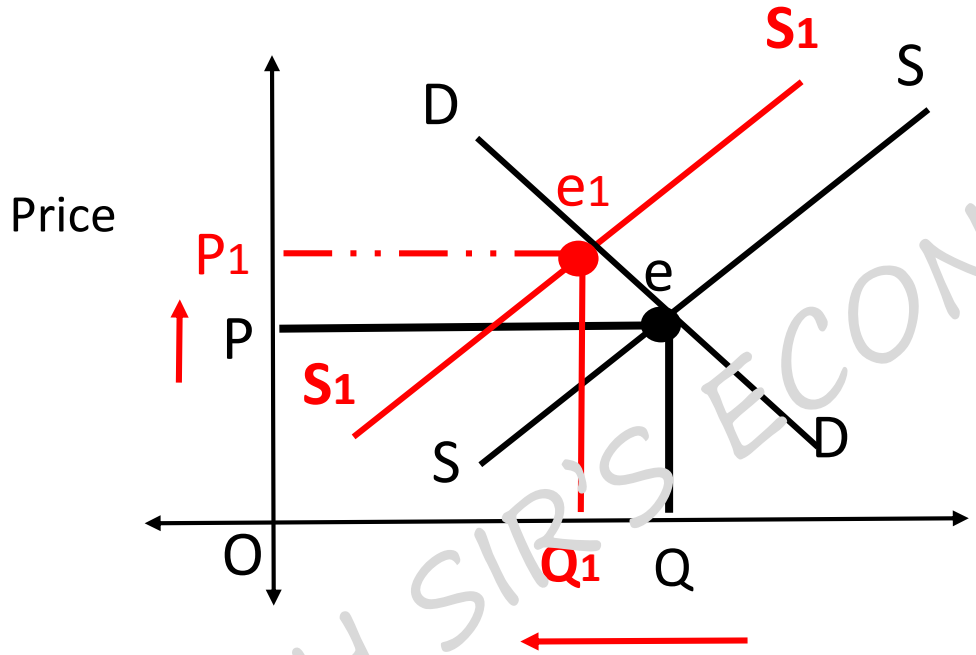
3.Supply Rises Demand Constant (SS curve to Right)



Qty SS rises Price falls

EQUILIBRIUM PRICE

4.Supply falls Demand Constant (SS curve to Left)

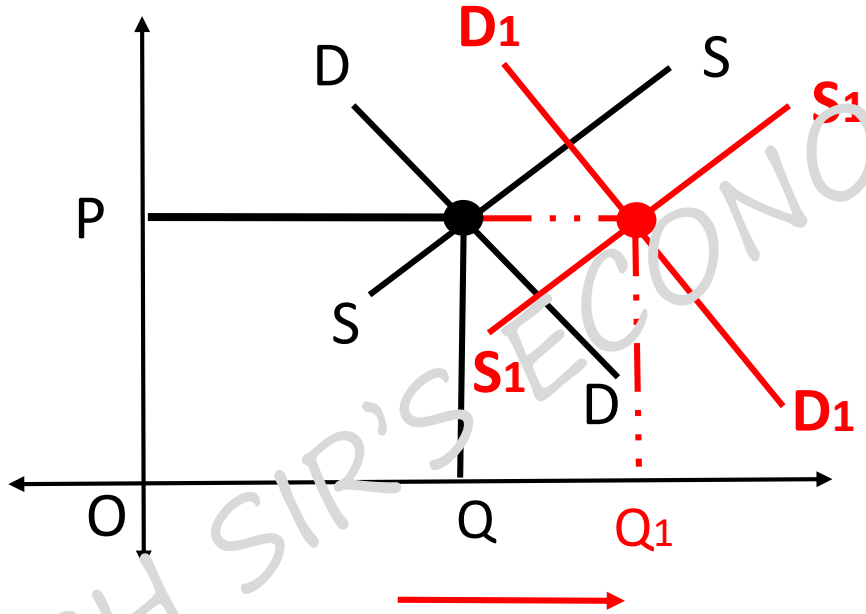


Qty SS falls Price rises

EQUILIBRIUM PRICE

5.When both DD & SS increases in same proportion

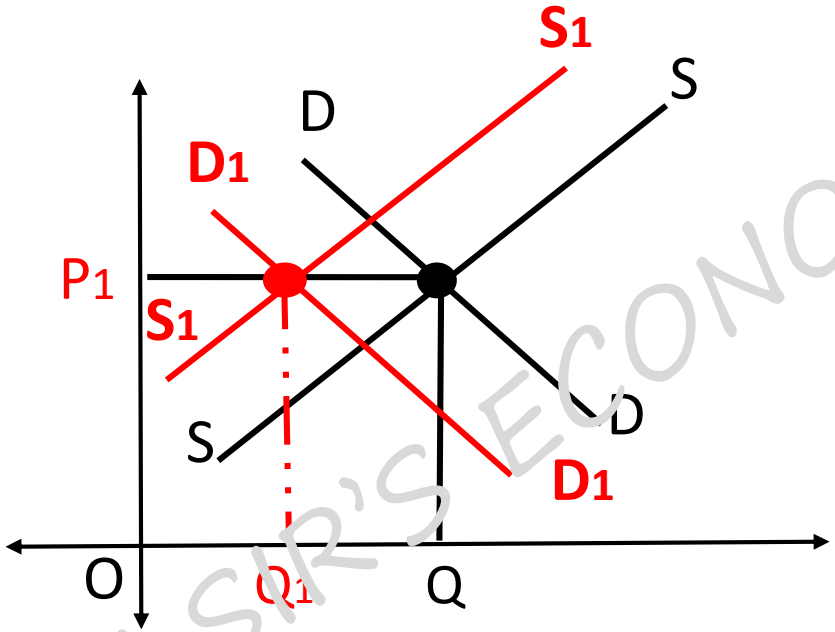
(DD & SS curve both to right)



Qty DD & SS increases Price will remain same

EQUILIBRIUM PRICE

6.When both DD & SS decreases in same proportion
(DD & SS curve both to left)

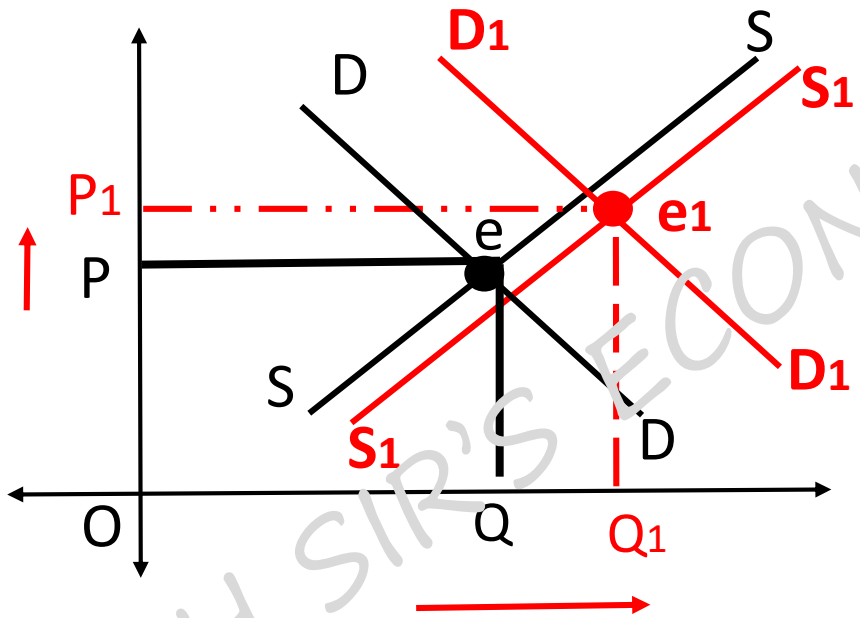


Qty DD & SS decreases Price will remain same

EQUILIBRIUM PRICE

7. When both DD & SS increases but DD increases in greater proportion

(DD & SS curve both to right but DD gap will be big)

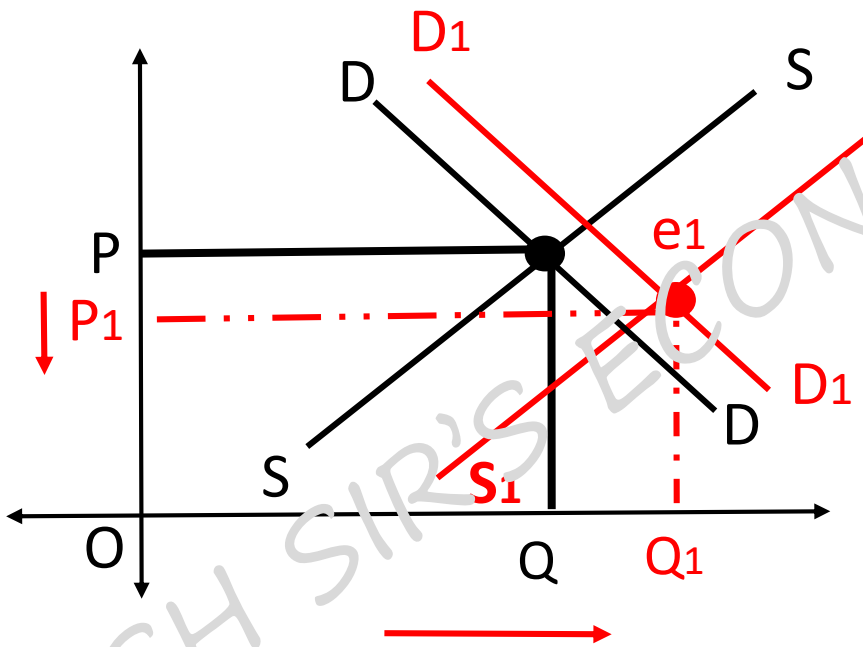


Qty DD & SS increases slight increase in Price.

EQUILIBRIUM PRICE

8. When both DD & SS increases but SS increases in greater proportion

(DD & SS curve both to right but SS gap will be big)

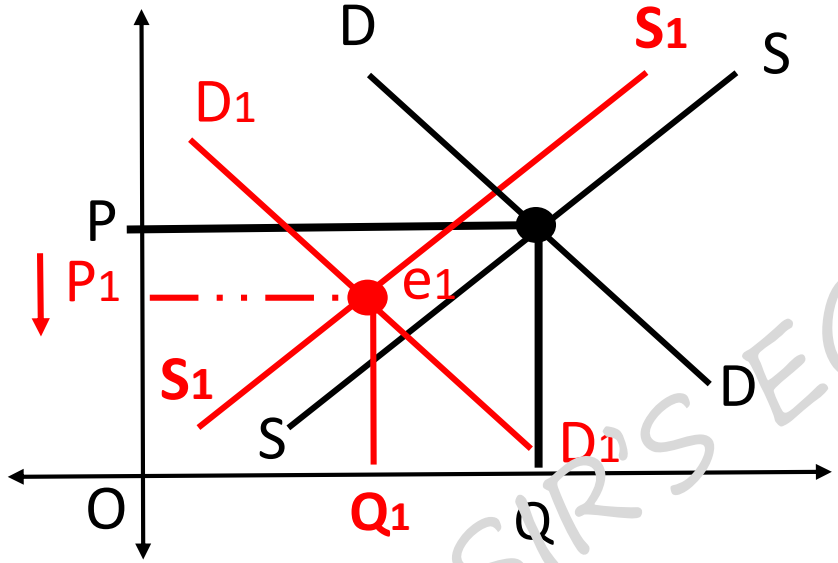


Qty DD & SS increases slight fall in Price.

EQUILIBRIUM PRICE

9. When both DD & SS decreases but DD decreases in greater proportion

(DD & SS curve both to left but DD gap will be big)

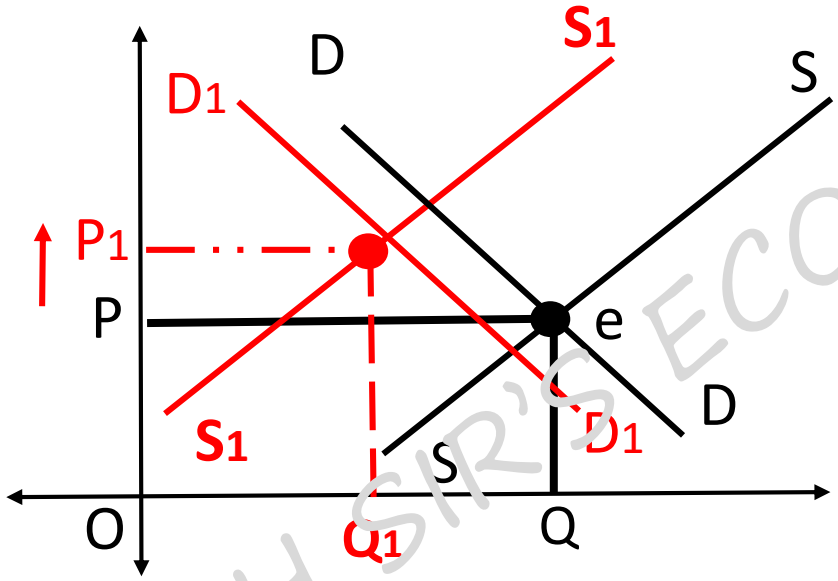


Qty DD & SS decreases slight fall in Price.

EQUILIBRIUM PRICE

10.When both DD & SS decreases but SS decreases in greater proportion

(DD & SS curve both to left but SS gap will be big)

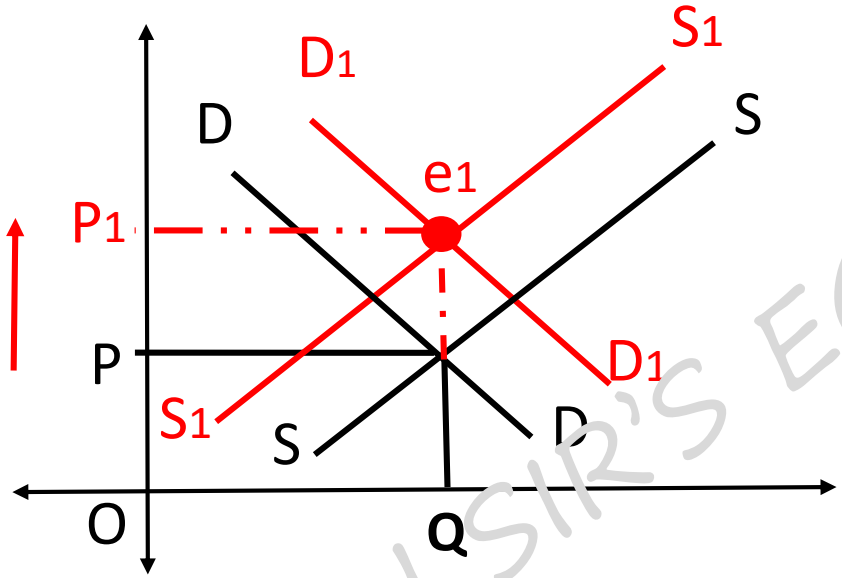


Qty DD & SS decreases slight increase in Price.

EQUILIBRIUM PRICE

11. When DD increases and SS decreases but in same proportion

(DD right & SS left but gap will be same)

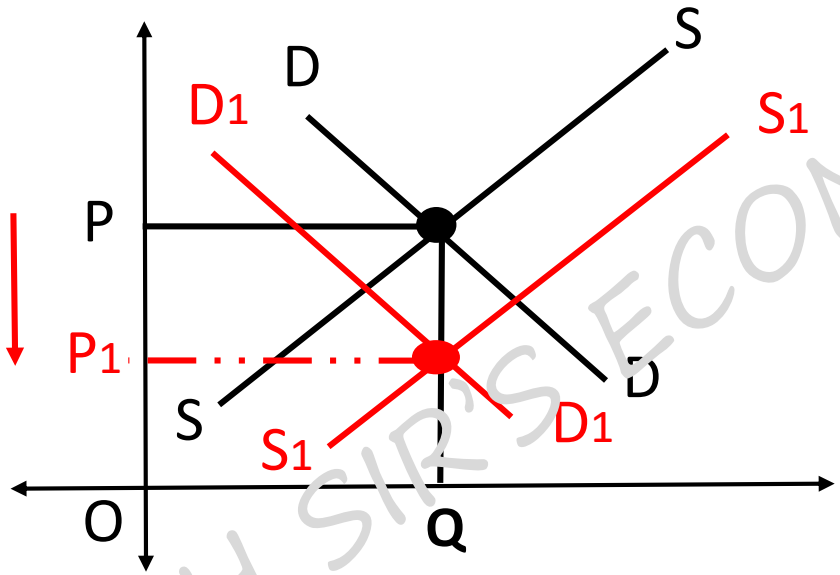


Qty DD & SS same Price increases.

EQUILIBRIUM PRICE

12.When DD decreases and SS increases but in same proportion

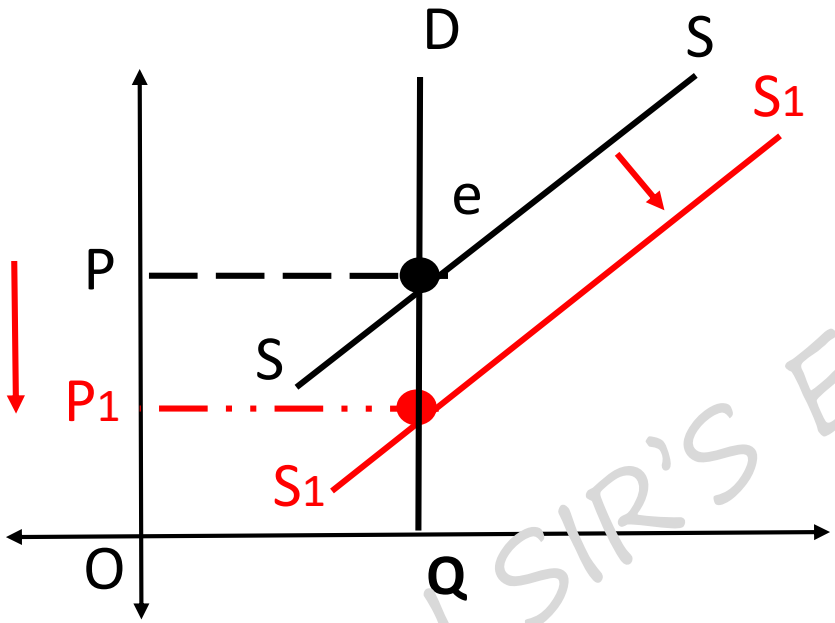
(DD left & SS right but gap will be same)



Qty DD & SS same Price Falls.

EQUILIBRIUM PRICE

13. When DD is Perfectly inelastic & SS increases (SS curve to right)

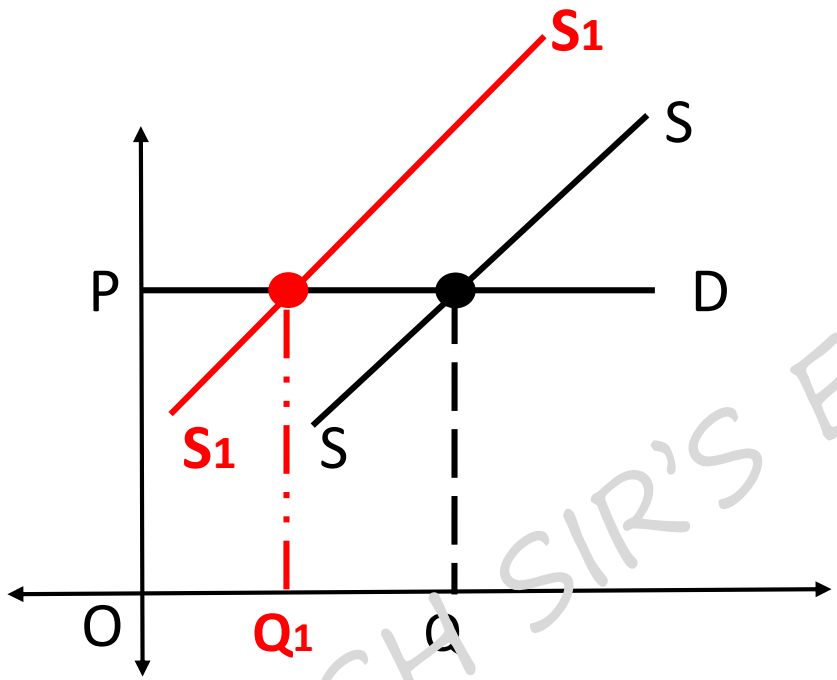


Qty remains same Price will fall.

EQUILIBRIUM PRICE

14. When DD is Perfectly elastic & SS decreases

(DD will be horizontal SS curve to left)

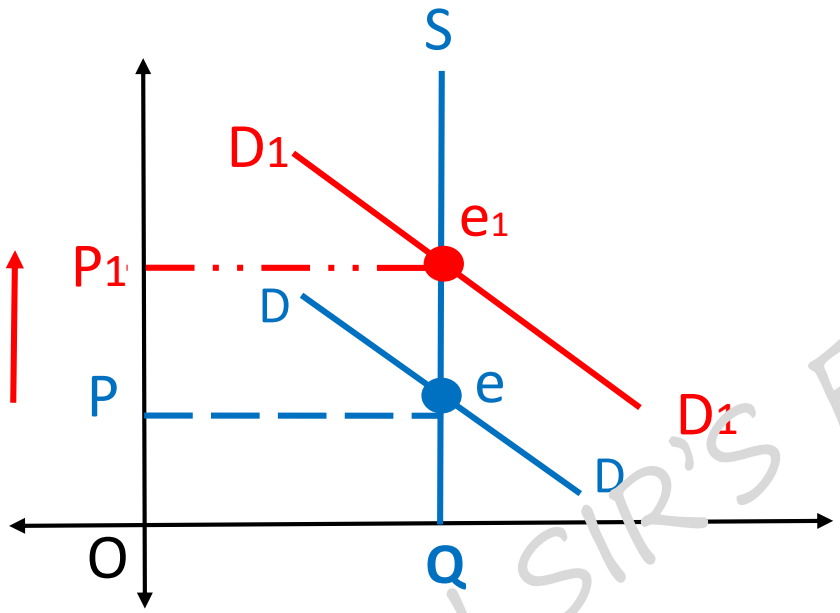


Qty decrease Price will remain same.

EQUILIBRIUM PRICE

15. When SS is Perfectly inelastic & DD increases

(SS will be vertical DD curve to right)



Qty same Price will increase.

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Sr No	Situation	Effect on Equilibrium Price	Effect on Equilibrium Qty
1	Qty SS > Qty DD	Downward pressure on price	Qty supplied decreases & Qty demanded increases upto Equilibrium
2	Qty SS < Qty DD	Upward pressure on Price	Qty Supplied increases & Qty demanded decreases upto Equilibrium
3	Increase in Demand	Increase	Increase
4	Decrease in Demand	Decrease	Decrease
5	Increase in Supply	Decrease	Increase
6	Decrease in Supply	Increase	Decrease
7	Increase in Demand is equal to Increase in Supply	Remains the same	Increase
8	Increase in Demand is greater than increase in Supply	Increase	Increase
9	Increase in Demand is less than increase in Supply	Decrease	Increase

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Sr No	Situation	Effect on Equilibrium Price	Effect on Equilibrium Qty
10	Decrease in Demand is equal to Decrease in Supply	Remains same	Decrease
11	Decrease in Demand is greater than Decrease in Supply	Decrease	Decrease
12	Decrease in Demand is less than Decrease in Supply	Increase	Decrease
13	Increase in Demand is equal to Decrease in Supply	Increases	Remains Same
14	Increase in Demand is greater than Decrease in Supply	Increases	Increases
15	Increase in Demand is less than Decrease in Supply	Increases	Decreases

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Sr No	Situation	Effect on Equilibrium Price	Effect on Equilibrium Qty
16	Decrease in Demand is equal to Increase in Supply	Decreases	Remains Same
17	Decrease in Demand is less than Increase in Supply	Decreases	Increases
18	Decrease in Demand is greater than Increase in Supply	Decreases	Decreases

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- When both demand & supply increase, but no other data given :
  EQ increases, but effect on EP cannot be determined.

- When both demand and supply decrease, but no other data given :
  EQ decreases, but effect on EP cannot be determined

- When demand increases & supply decreases :
  EP rises but effect on EQ Cannot be determined

- When demand decreases & supply increases :
  EP falls but effect on EQ Cannot be determined

Perfect Competition :- Features

A market is said to be perfectly competitive when demand and supply forces operate freely to determine the market price. There is no restriction on entry, no product differentiation no market concentration

Features:

Large number of buyers and sellers

Homogeneous Product

Free Entry and Exit

Perfect knowledge

Perfect mobility

Uniform Price

No government intervention / restriction

Industry is a price maker and firm is a price taker (Firm can decide Qty NOT Price)

Transportation cost and selling cost are not found

Pure Competition :

Pure Competition is a part of Perfect Competition.

Features:

Large number of buyers and sellers
Homogeneous Product
Free Entry and Exit

Examples closest to Market :
Agriculture goods,
Stock Market,
Foreign Exchange Market,
Milk Industry

Names in MCQ's
Competitive Market ,
Perfectly Competitive Market ,
Purely competitive market,
Price taking firms

Revenue Concepts under Perfect Competition

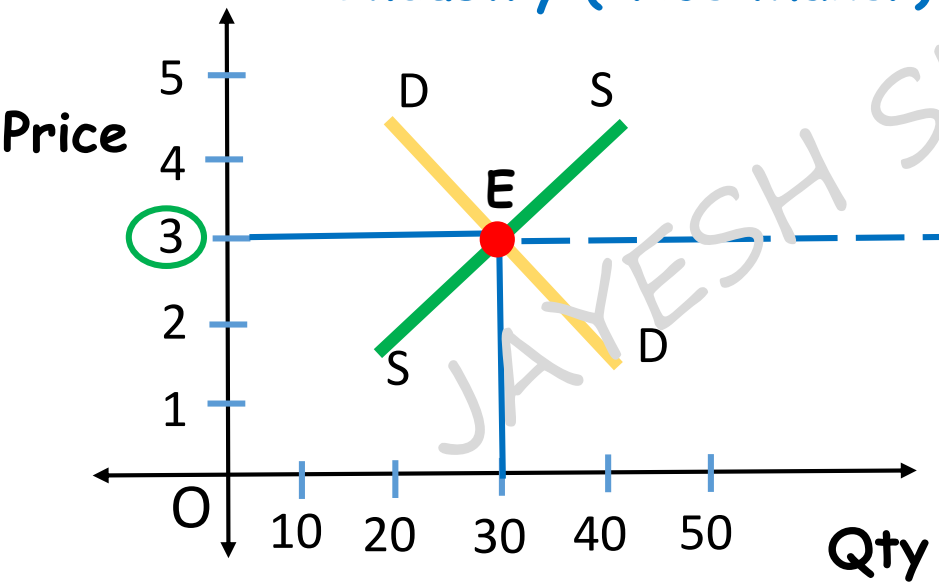
Industry (Price Maker)

Price	Qty DD	Qty SS
5	10	50
4	20	40
3	30	30
2	40	20
1	50	10

Firm (Price Taker)

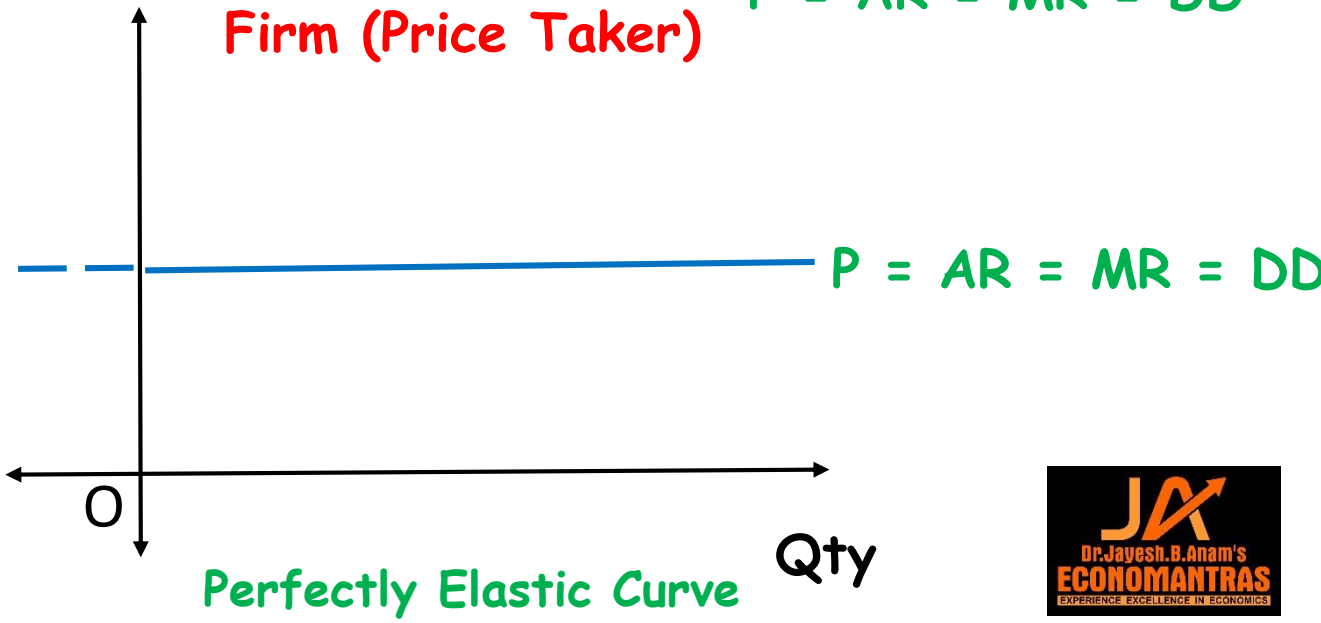
Price	Qty	TR	AR	MR
3	1	3	3	-
3	2	6	3	3
3	3	9	3	3
3	4	12	3	3
3	5	15	3	3

Industry (Price Maker)



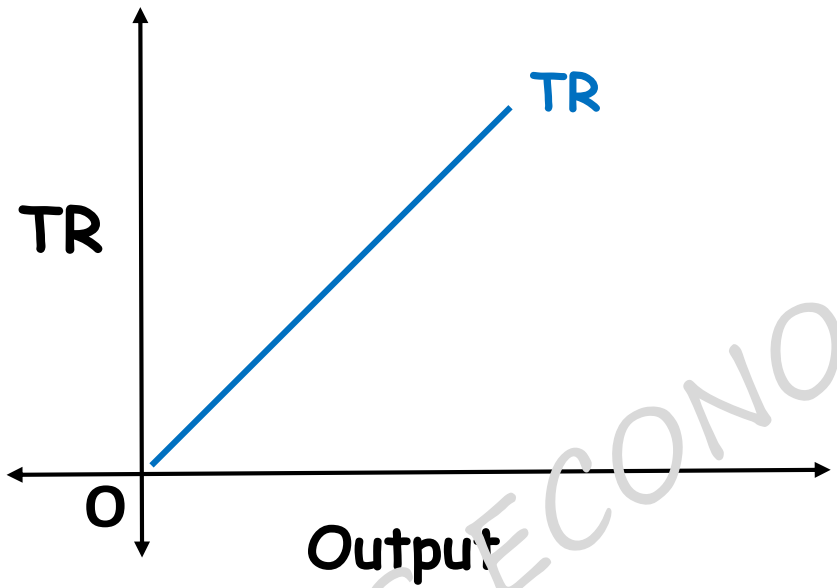
Firm (Price Taker)

P = AR = MR = DD



Perfectly Elastic Curve

TR under Perfect Competition



Upward Sloping Straight Line Starting from Origin

Note : Shape of TR when firm is a Price Taker ?

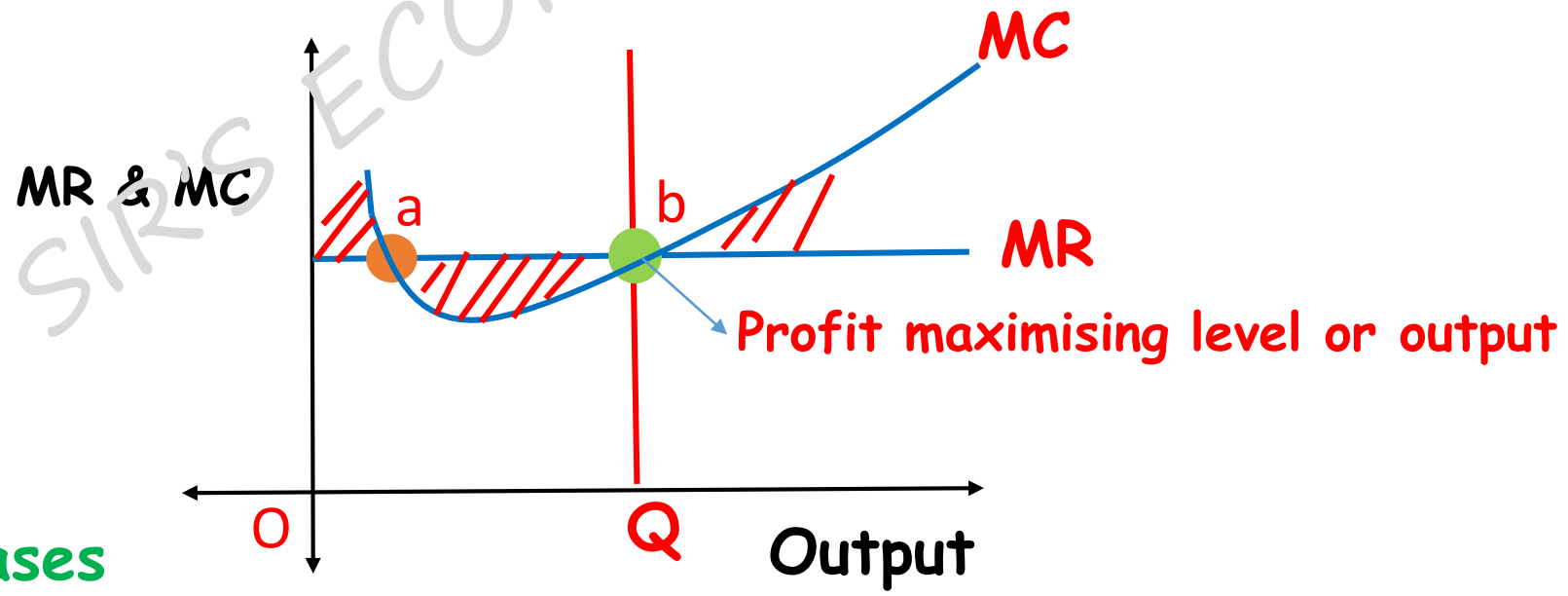
Upward Sloping

MR and MC Approach

Equilibrium Quantity or Output (Profit Maximising Level of Output)

1st Order of Condition : MR = MC

2nd Order of Condition : MC Curve should cut MR from below (MC Curve has positive slope)



When
MR > MC : Output increases
MR < MC : Output decreases
MR = MC : Profit Maximising Output

AR and AC Approach

Profits and Losses

AC = AFC + AVC

20,000 = 8000 + 12,000

CASE	AR (P)	AC	RELATION	NAME
1	30,000	20,000	AR > AC	Super Normal Profit / Abnormal Profit
2	20,000	20,000	AR = AC	Normal Profit / Zero Economic Profit
3	15,000	20,000	AC > AR > AVC	Sub – Normal Profit
4	12,000	20,000	AC > AR = AVC	Max Bearable Loss Shut Down Zone
5	10,000	20,000	AC > AR < AVC	Shut Down Point

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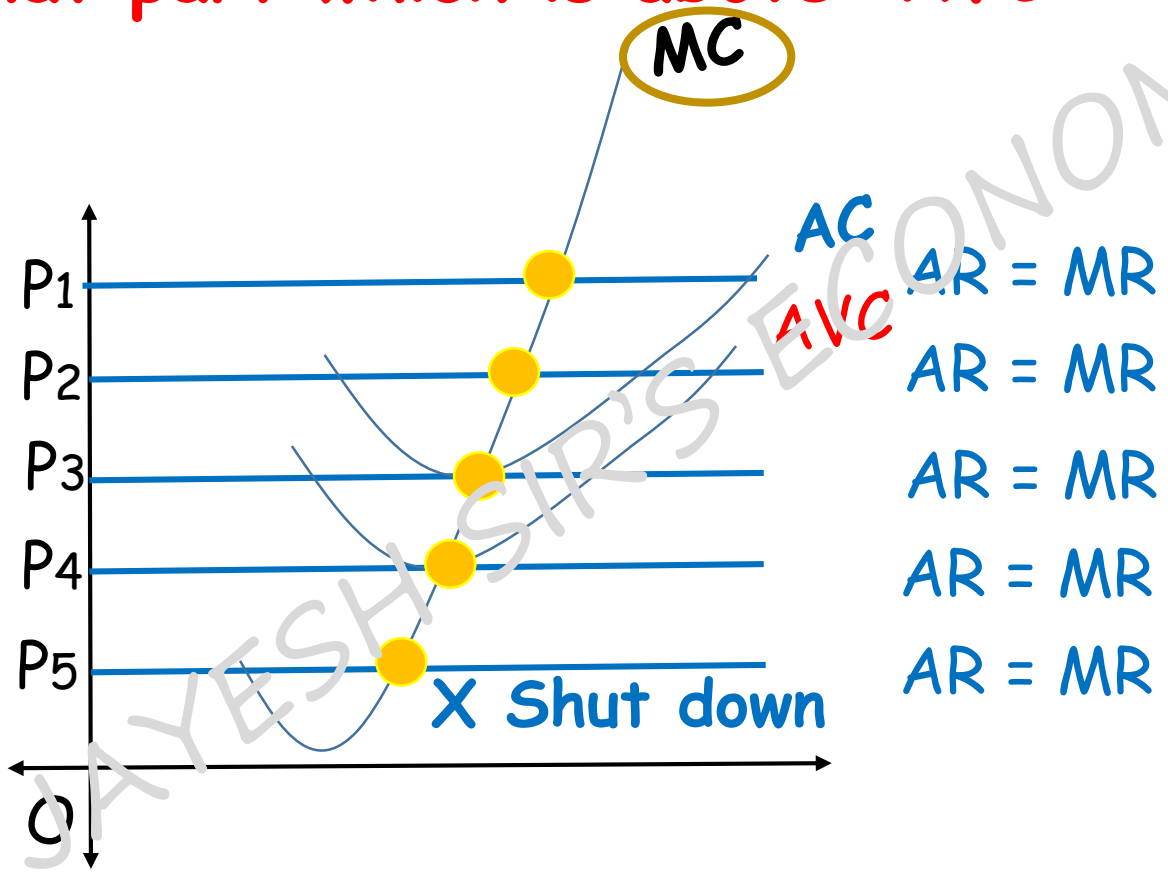
SHUT DOWN POINTS

- AR < AVC
- AR = AVC
- P < AVC
- P = AVC
- TR < TVC
- TR = TVC
- LOSS = AFC
- LOSS = TFC

Supply Curve under Perfect Competition

Concept of Supply Curve exist only in Perfect Competition
Marginal Cost Curve is a supply curve under Perfect Competition but only that part which is above "AVC"



Note : How much output will you produce at P5 ? Ans : 0

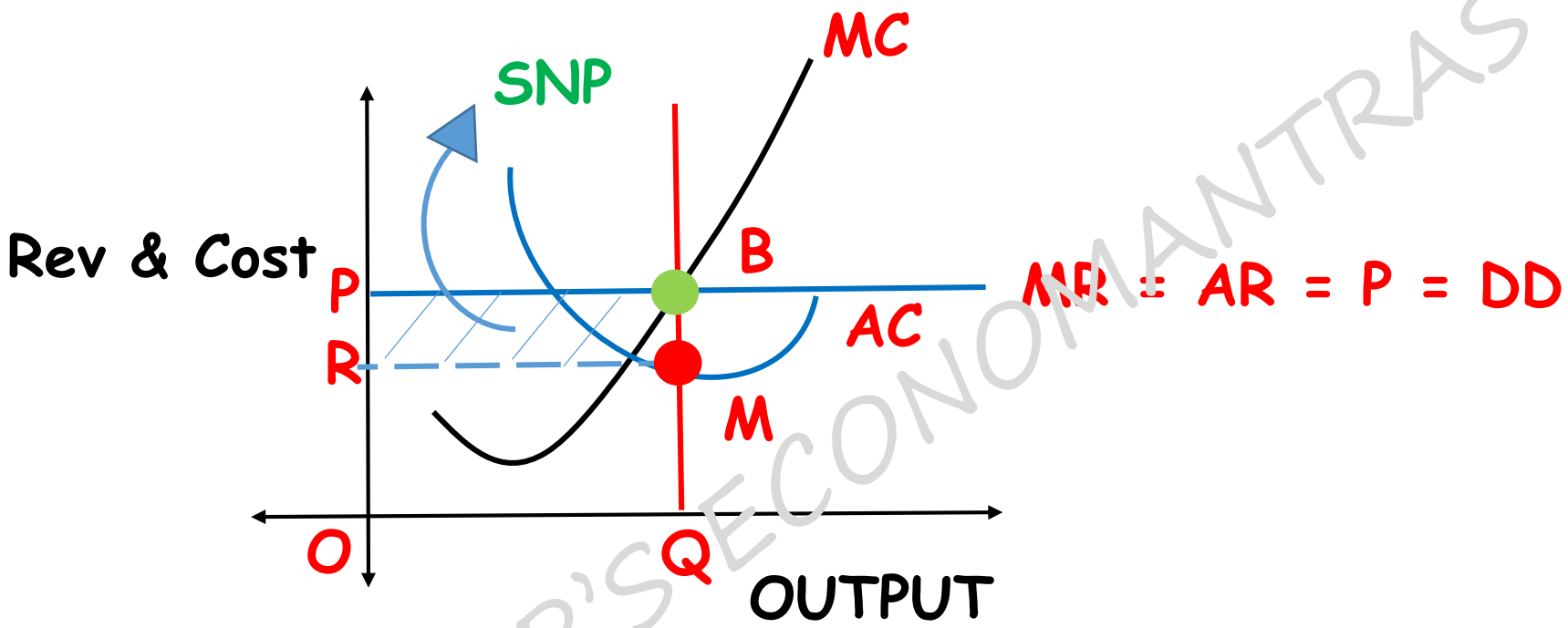
How can a Competitive firm can earns profit?

Short Run Equlibrium of a firm in Perfect Competition

- For determining the profit maximising level of output draw MR & MC Curves which has to fulfil 2 conditions i.e. MR = MC & MC Curve cuts MR Curve from below.

- To show the category of the profits compare AR & AC Curve.

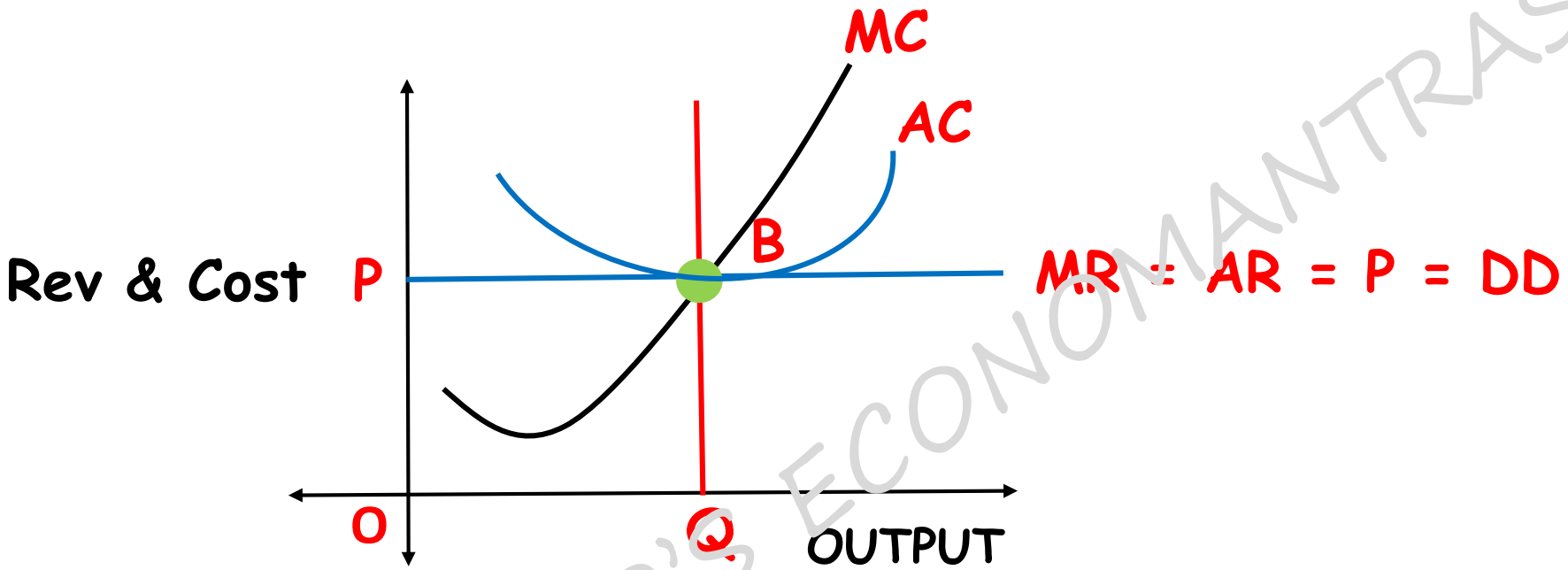
Super - Normal Profit [AR > AC]



POQB = Revenue / ROQM = Cost

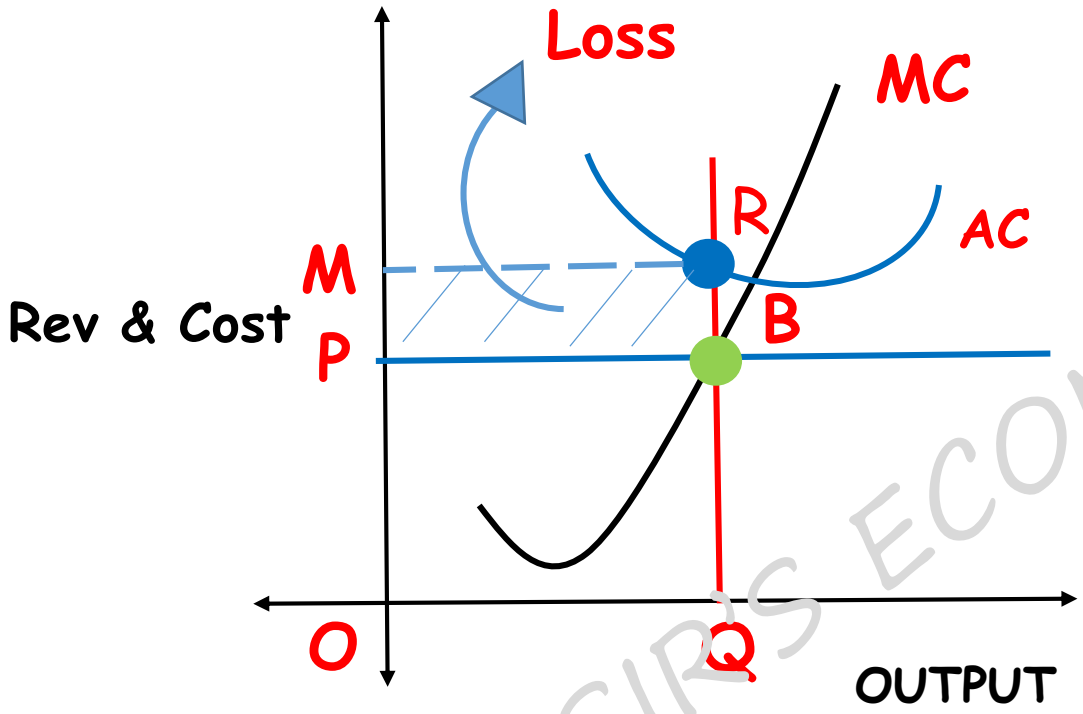
PRMB = SNP

Normal Profit [AR = AC]



POQB = Revenue / POQB = Cost

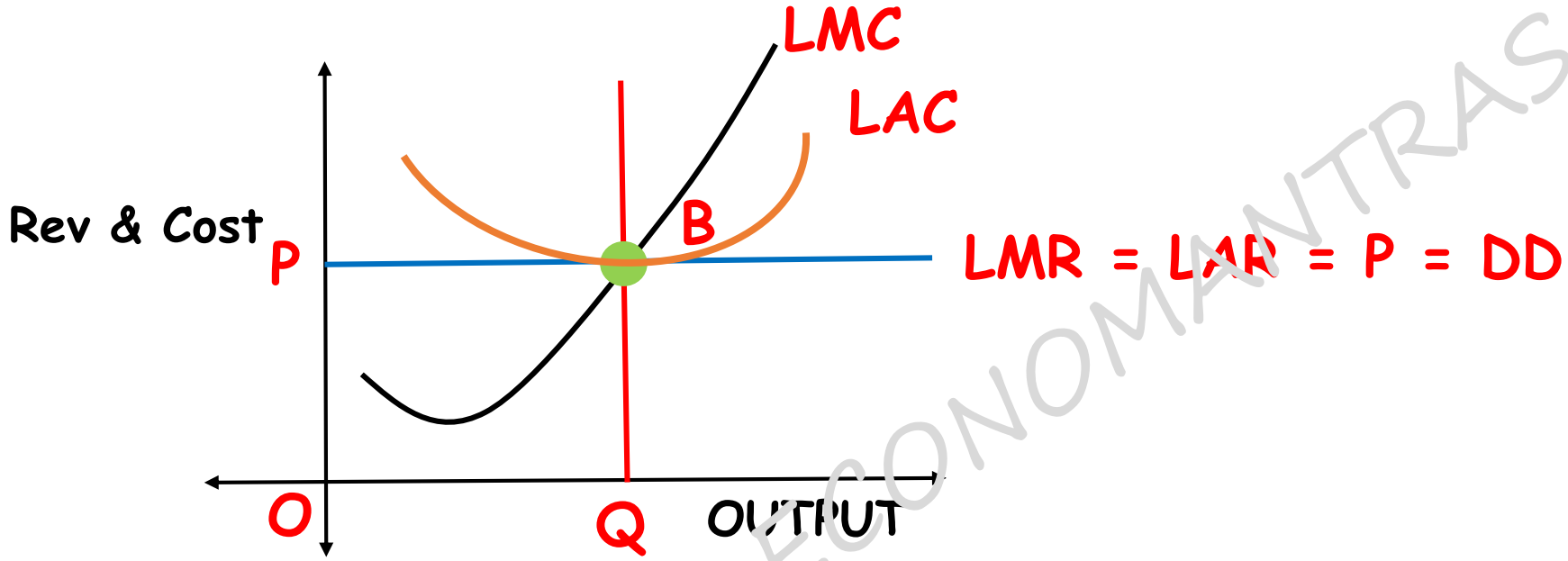
Losses [AR < AC]



MCQR = Cost / POQB = Revenue

MPBR = Loss

LR under PC Normal Profit [LAR = LAC]



In Long Run Perfect Competitive earns Normal Profits because of free entry and exit.

In Long Run Perfectly Competitive market operates at least cost point
(productively efficient point) this is due to no selling cost and transportation cost.

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Long Run Perfect Competition

- Productively efficient Point : AC = MC

- Allocative Efficiency : AR = MC
  (Full Capacity)

In Long Run does firm operate at least cost point under PC ?

A) Yes

Monopoly :- Features

Features:

Single seller and many buyers

Price Maker

Firm and industry same

Either price or output

Price Discrimination

Product differentiation is highest

No close sustitutes

No Free entry & exit (Blocked Entry)

Relatively inelastic demand curve

Revenue Concept under Monopoly

Price	Qty	TR	AR	MR
10	0	0	0	-
9	2	18	9	9
8	3	24	8	6
7	4	28	7	4
6	5	30	6	2
5	6	30	5	0
4	7	28	4	-2
3	8	24	3	-4

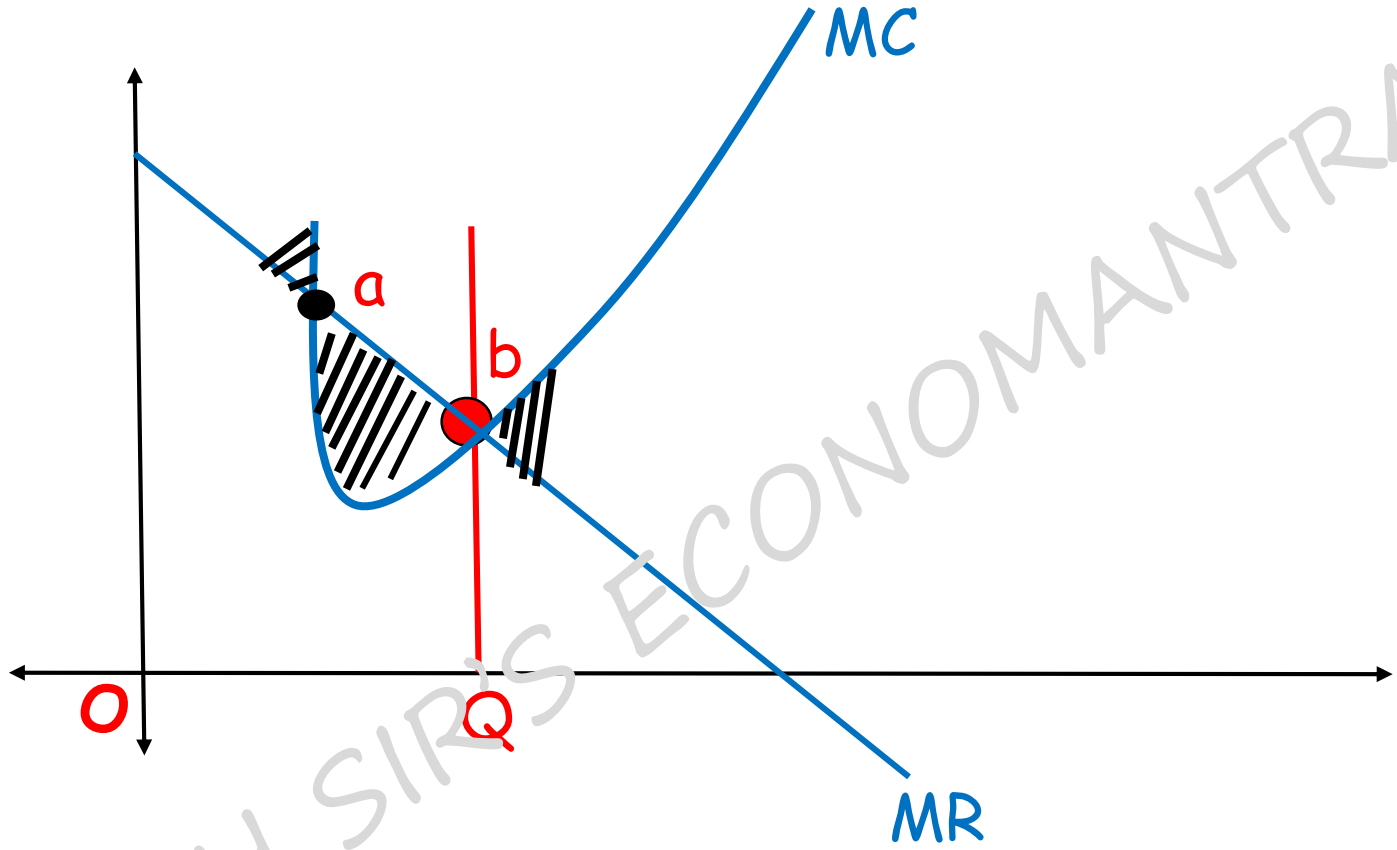
MR and MC Approach under Monopoly

Equlibrium Quantity / Output (Profit Maximising Level)

1st Order of Condition : MR = MC

2nd Order of Condition : MC Curve should cut MR from below
(MC Curve has positive slope)

MR and MC Approach under Monopoly



MR > MC Output ↑

MR < MC Output ↓

MR = MC Profit Maximising Level / Output

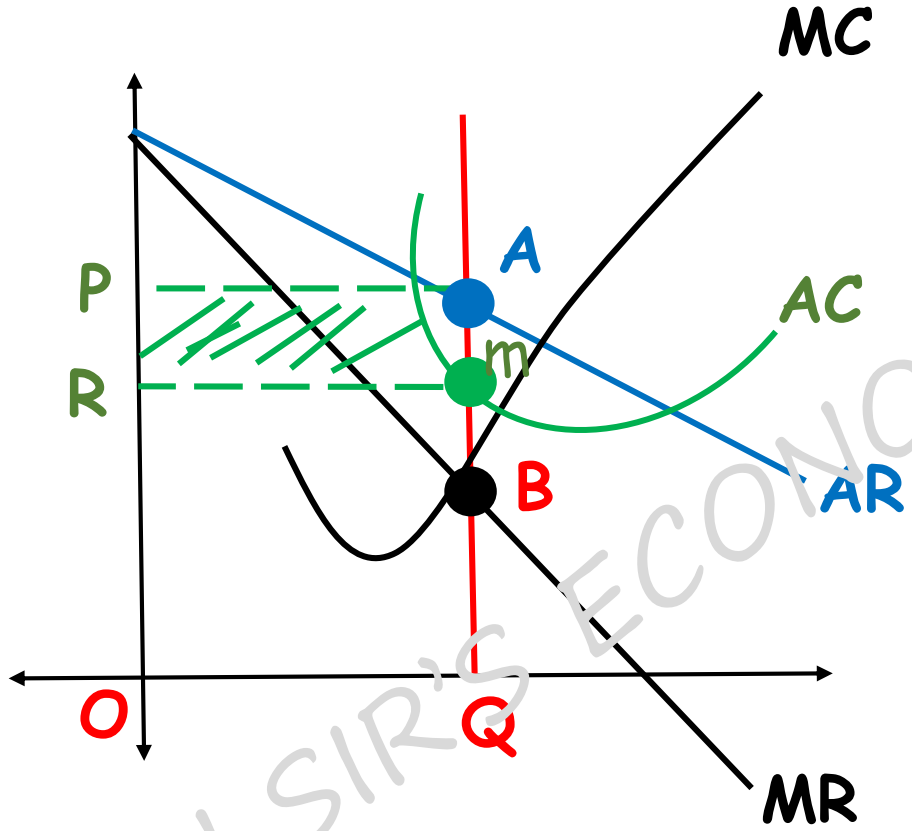
How can a Monopoly firm earn profit?

Short Run Equlibrium of a firm in Monopoly

- For determining the profit maximising level of output draw MR & MC Curves which has to fulfil 2 conditions i.e. MR = MC & MC Curve cuts MR Curve from below.

- To show the category of the profits compare AR & AC Curve.

Super - Normal Profit (AR > AC)

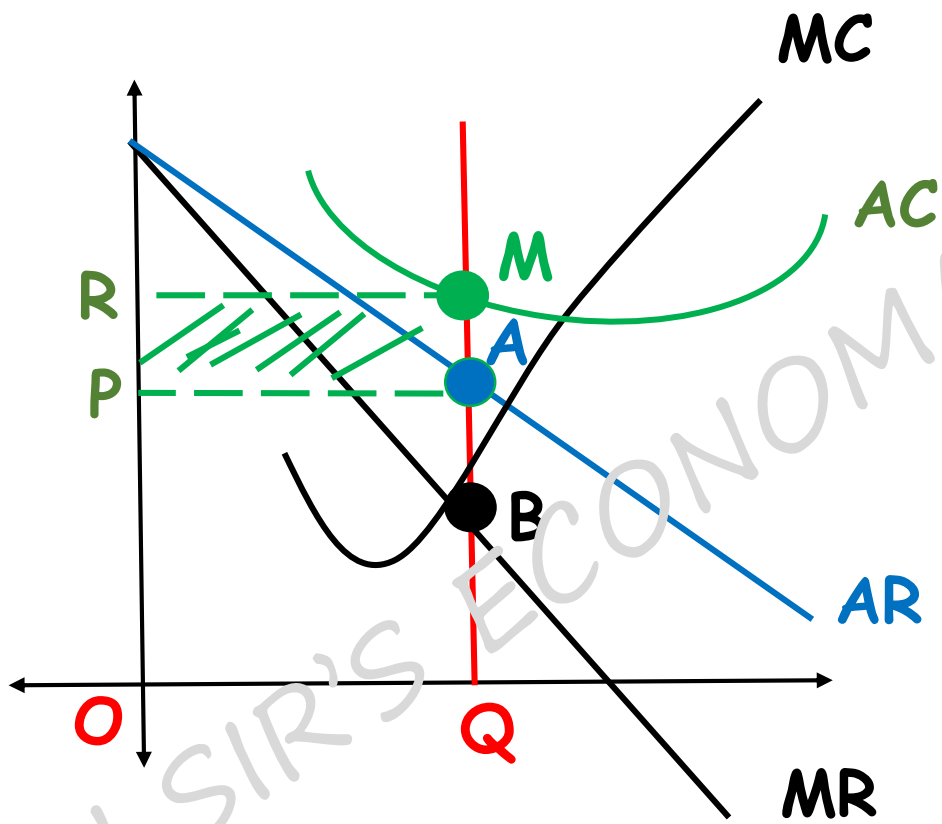


POQA = Revenue

ROQM = Cost

PRMA = SNP

Losses [AR < AC]

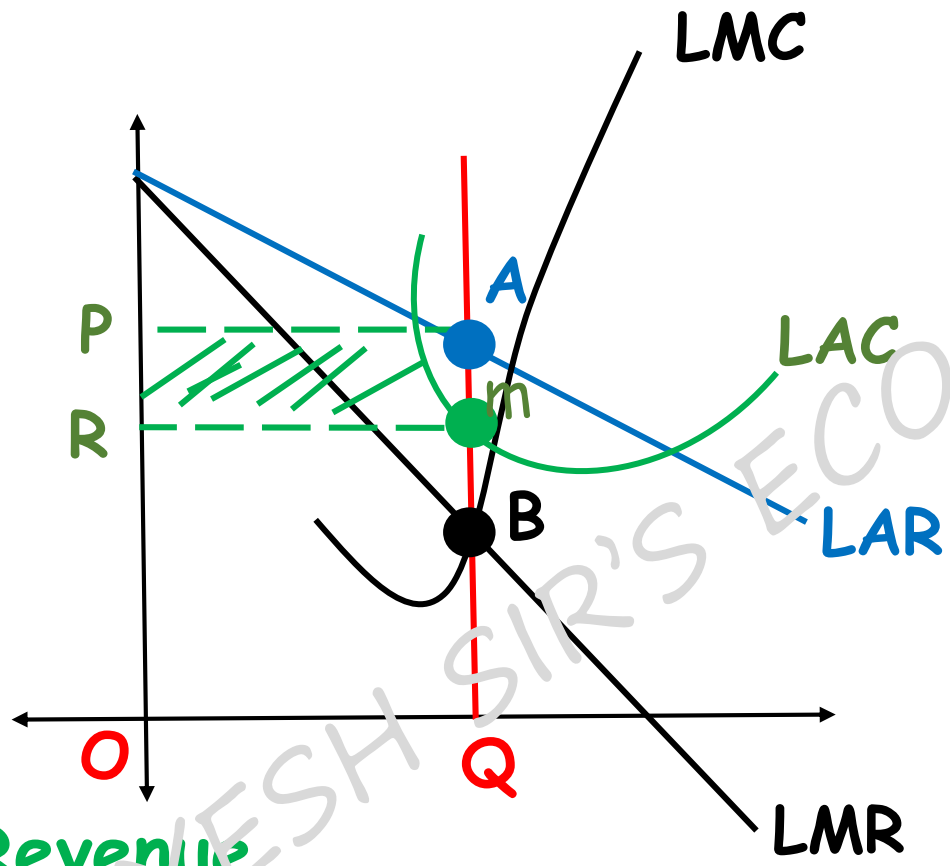


POQA = Revenue

ROQM = Cost

RPAM = Loss

Long Run Equilibrium under Monopoly SNP [LAR > LAC]



POQA = Revenue

ROQM = Cost

PRMA = SNP

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Monopoly

In Long Run does firm operate at least cost point under Monopoly ?

A)NO

In LR under Monopoly firm earns SNP due to Blocked Entry.

In LR under Monopoly firm operates at falling part of AC i.e. Sub Optimal Level (Best se thoda Kam).This is due to absence of Competition

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Monopoly : Price Discrimination

First Degree of Price Discrimination : Takes away entire consumer surplus Example : Professional Services

Second Degree of Price Discrimination :
High Prices are charged which will take away a part of consumers surplus. Example Wholesale & Retail Buying

Third Degree of Price Discrimination : Different Prices in different submarkets / location.
Area to Area, location to location different prices are charged to different customers having different elasticities.

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Monopoly

Objectives of Price Discrimination

A) To maximise profit.

B) To sell off surplus stock (End of season sale)

C) To enjoy economies of scale (to reduce cost of Production)

D) To capture foreign market (Dumping - International Price Discrimination)

E) To ensure equity through pricing (equitable distribution of income)

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Economic Effects of Monopoly

1) Loss of productive and allocative efficiency – reduction of aggregate economic welfare
2) Relatively high prices and lower output.
3) Abnormal profits earned in long run non justifiable.
4) Price greater than MC – Reduction in consumer surplus.
5) Restriction on consumer sovereignty (consumer welfare not considered)
6) Use of unjust means to create barriers to entry – increases AC of production
7) Influences political process in order to obtain favourable legislation.
8) No incentives to introduce efficient innovations.
9) Pay lower prices to suppliers

Monopolistic Competition :- Features

Features:

Fairly large number of sellers and many buyers

Product Differentiation

Free Entry & Exit

Concept Of Brand / Branded articles

Close Substitutes

Concept of Group

Price Maker and Price taker of it's own product

Selling Cost

Relatively Elastic Demand

Revenue Concept under Monopolistic Competition

Price	Qty	TR	AR	MR
10	0	0	0	-
9	2	18	9	9
8	3	24	8	6
7	4	28	7	4
6	5	30	6	2
5	6	30	5	0
4	7	28	4	-2
3	8	24	3	-4

How can a Competitive firm can earns profit?

Short Run Equlibrium of a firm in Monopolistic Competition

- For determining the profit maximising level of output draw MR & MC Curves which has to fulfil 2 conditions i.e. MR = MC & MC Curve cuts MR Curve from below.

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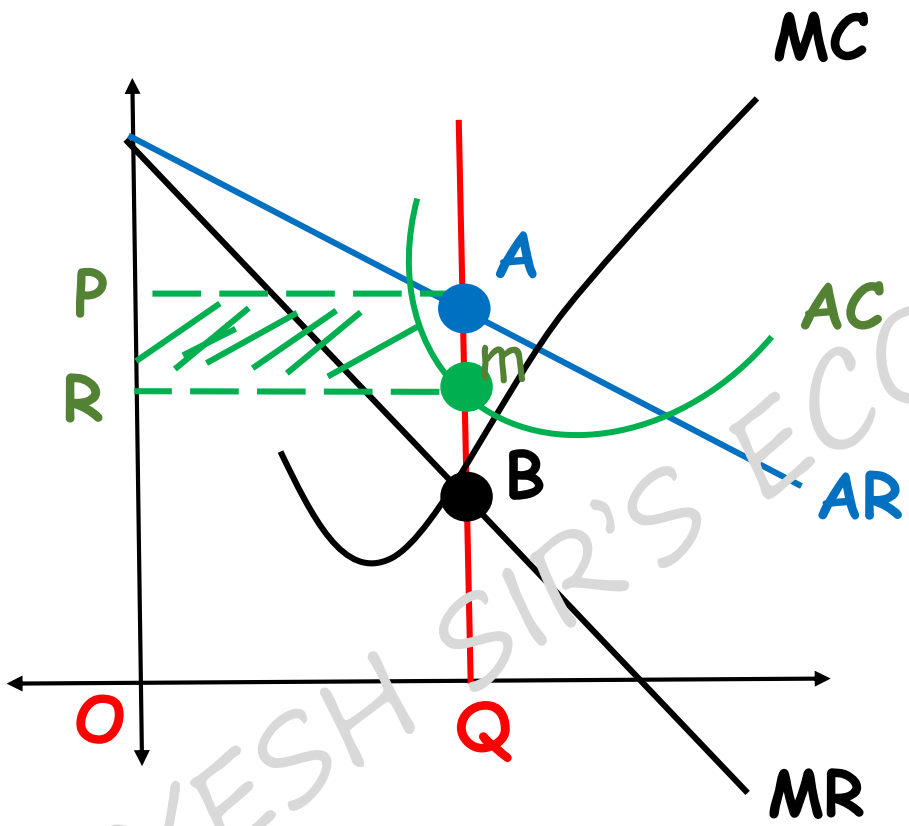
Super - Normal Profit (AR > AC)



POQA = Revenue

ROQM = Cost

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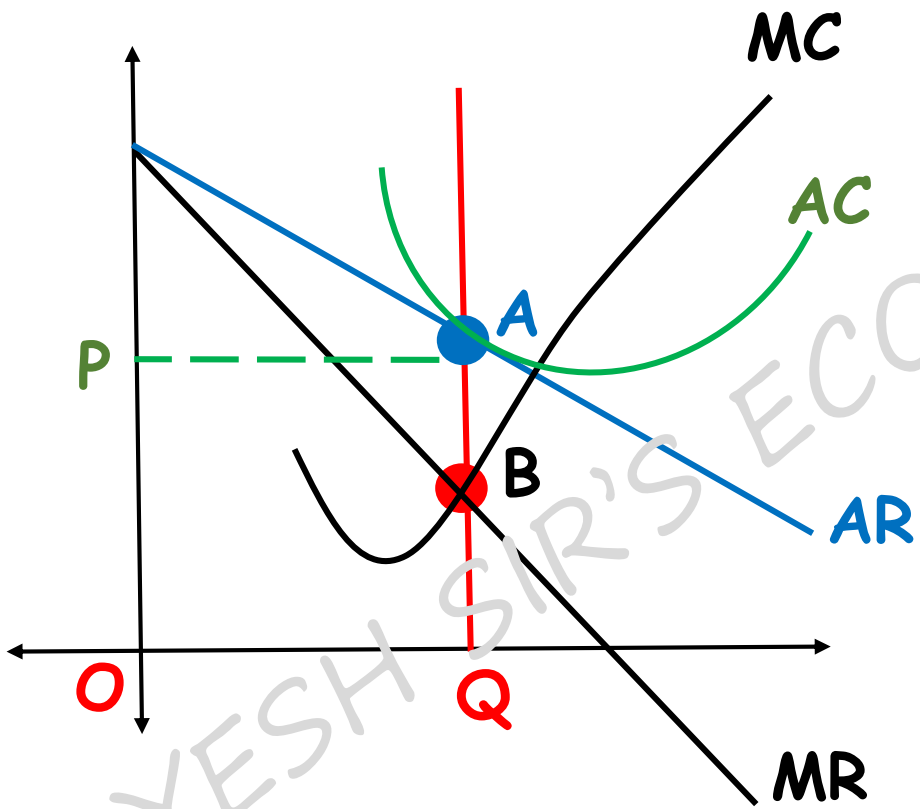
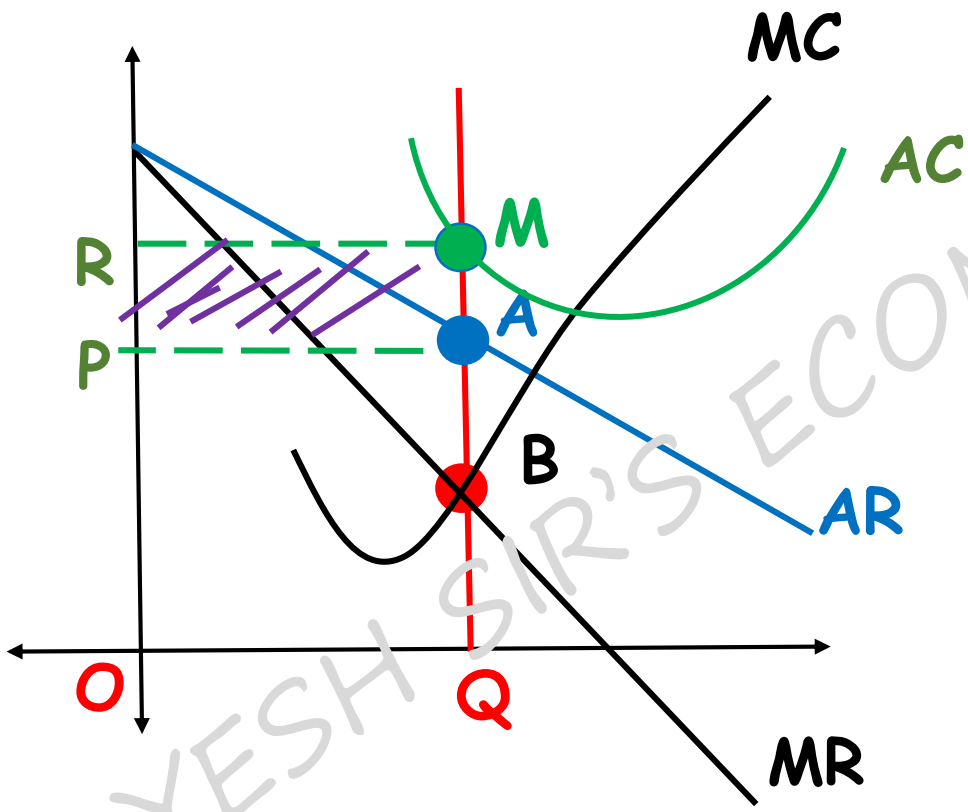
Normal Profit (AR = AC)



POQA = Revenue

POQA = Cost

Losses [AR < AC]

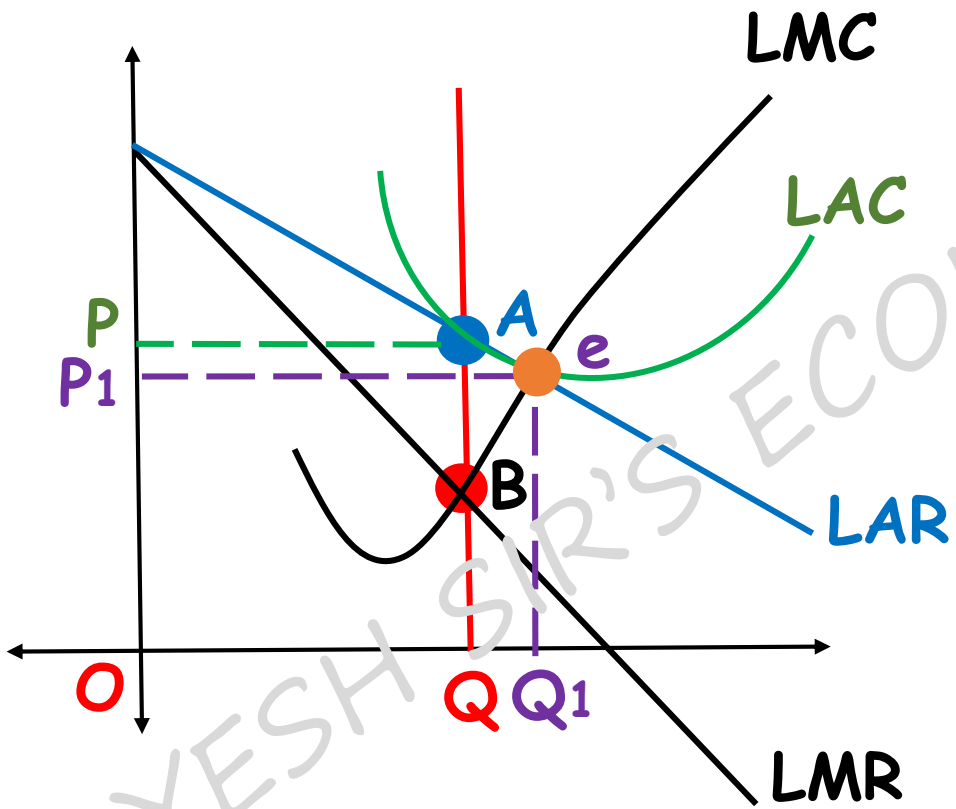


ROQM = Cost

POQA = Revenue

RPAM = Loss

Long Run Equilibrium under MC (LAR = LAC)



POQA = Revenue

POQA = Cost

BHOOL NA JANA

Monopolistic Competition

Excess Capacity
= Least Cost Output – Profit Maximising Output
$OQ_1 - OQ = QQ_1$ (Excess Capacity)

The concept of excess capacity definitely exist under MC, may or may not under Monopoly but **will never exist under PC.** (because in PC there exist Full Capacity)

BHOOL NA JANA

Monopolistic Competition

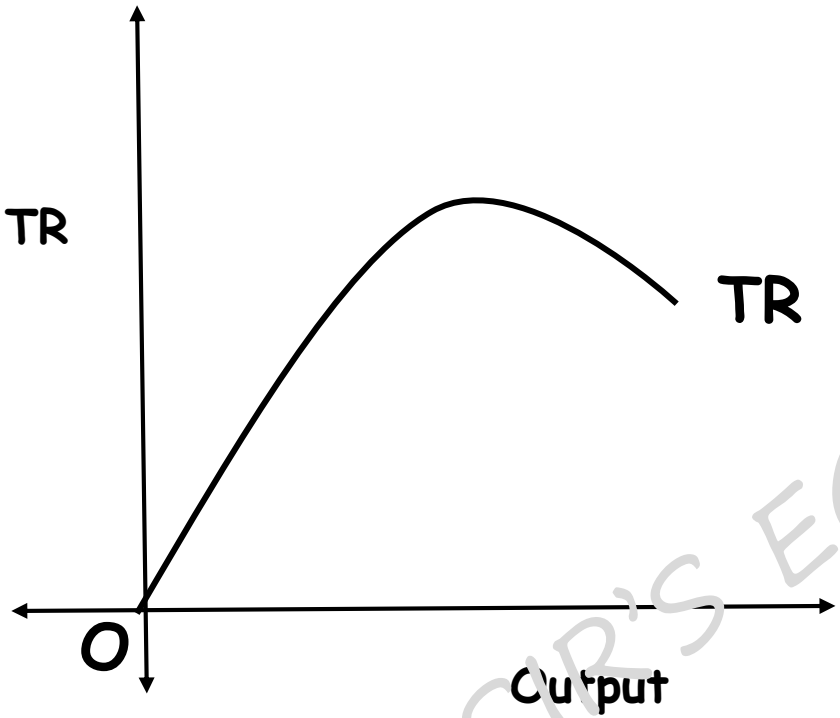
In Long Run Monopolistic Competition earns Normal Profits because of free entry and exit.

In LR, PC and MC don't earn Abnormal Profits.

In LR under MC firm operates at least cost point ?
A) NO

In Long Run under Monopolistic Competition firm operates at sub optimal level due to heavy advertisement expenditure.

TR under Monopoly and Monopolistic Competition



Note : TR is Inverted "U" shape or Dome Shape

Oligopoly :- Features

Features:

Few and countable sellers (Competition among firms)

Interdependence

No Free Entry , No Blocked Entry

Selling Cost (Non Price Competition)

Homogeneous or Differentiated

Price Rigidity

Kinked Demand Curve

Concept of Group

Types of Oligopoly

Pure and Perfect Oligopoly :that oligopoly where sellers are selling almost homogeneous / identical products. Example – Cement Companies , Tea selling companies , Paints selling Companies, aluminium industry etc

Imperfect and Differentiated Oligopoly :that oligopoly where sellers are selling differentiated products. Example – Soaps Companies, Shampoo Companies etc

Open Oligopoly : that oligopoly where entry is easy , less restriction , less formalities , less documentation. Example setting up of your own advertising agency, setting up your own coaching class, setting your biscuit / wafers / chocolate factory etc

Closed Oligopoly : that oligopoly where entry is difficult, more restriction , more formalities , more barriers. Example setting up of petrol pump, telecom, whine shop, pharmaceutical, cigarettes, banks

Types of Oligopoly

Collusive Oligopoly :that oligopoly where 4 – 5 sellers will fix the price and output and group leader decides the price or output or both. Example – we are selling shoes so we have decided not to sell beyond 2000 rupees (pre-decided/ groupism)

Competitive Oligopoly :that oligopoly where sellers have no groupism, no collobration. (Live and Let Live) Example – Samsung , Hitachi , Sony , LG televisions

Partial Oligopoly : Follow the leader concept. Example automobile company

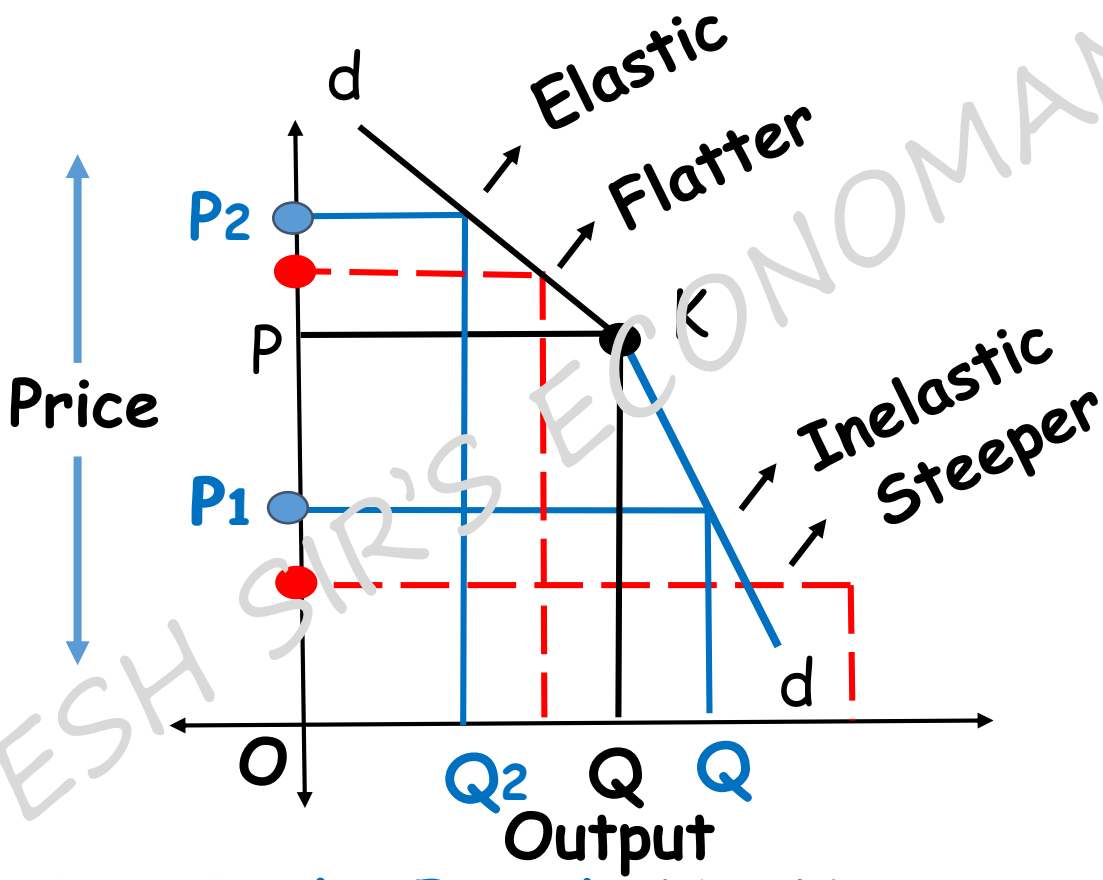
Full Oligopoly : that oligopoly where there is no specific leader in the market. Example Marks & Spencer , H & M , ZARA etc , Adidas , Nike , Puma etc

Types of Oligopoly

Syndicated Oligopoly :that oligopoly were sellers will come together to fix the price , output , strategy and has a regulatory body. Example – OPEC, IRDA.

Organised Oligopoly :that oligopoly where products are sold through central association Example : Amazon & Flipkart, Swiggy ,Zomato & Uber eats.

Kinked Demand Curve - Paul Sweezy
Based on Price Rigidity Concept



Apni Bhaasha : Price Kam Karke Faayda Nai Hai Aur Zyada Karke Nuksaan Hai

Shape of Kinked DD Curve - Uncertain , Indeterminate ,

Exist at which Price - Prevailing Price