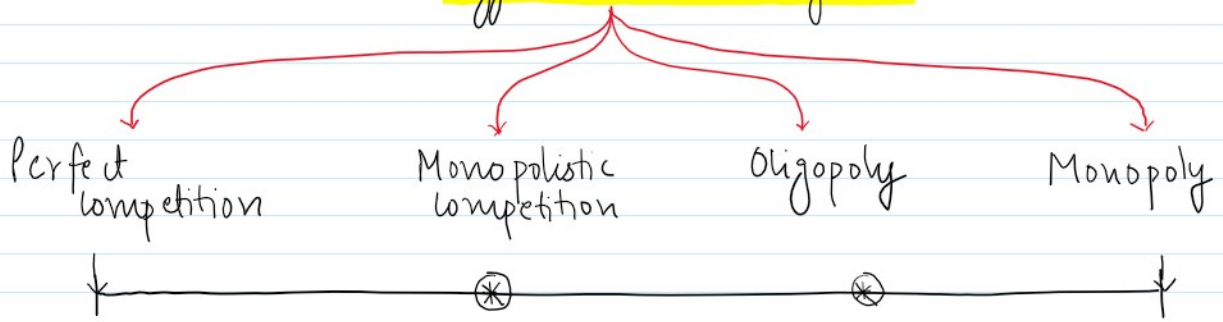


CH4 Unit 3 :- Price & Output determination under **different market forms**

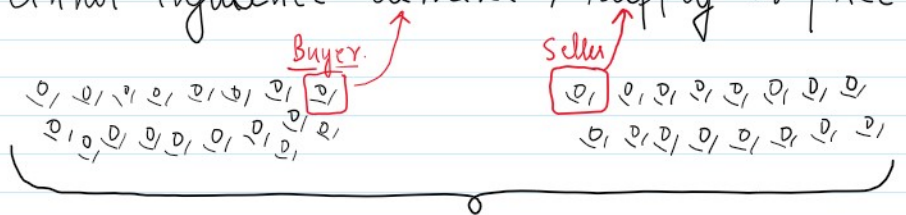


I **PERFECT COMPETITION**

(eg **Agricultural products**, metals etc), Stock market,

(i) **Very** large number of buyers & sellers

- Individual buyer or Individual seller cannot influence demand, supply or price



(ii) **Homogeneous** Product

- Identical products (Not similar)

coke - coke

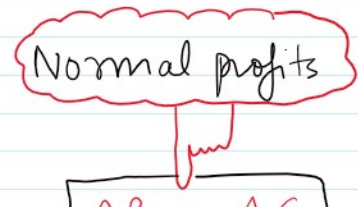
coke - pepsi

- PERFECT** Substitutes

- Price will remain "Same"

(iii) **Free entry & exit of firms**

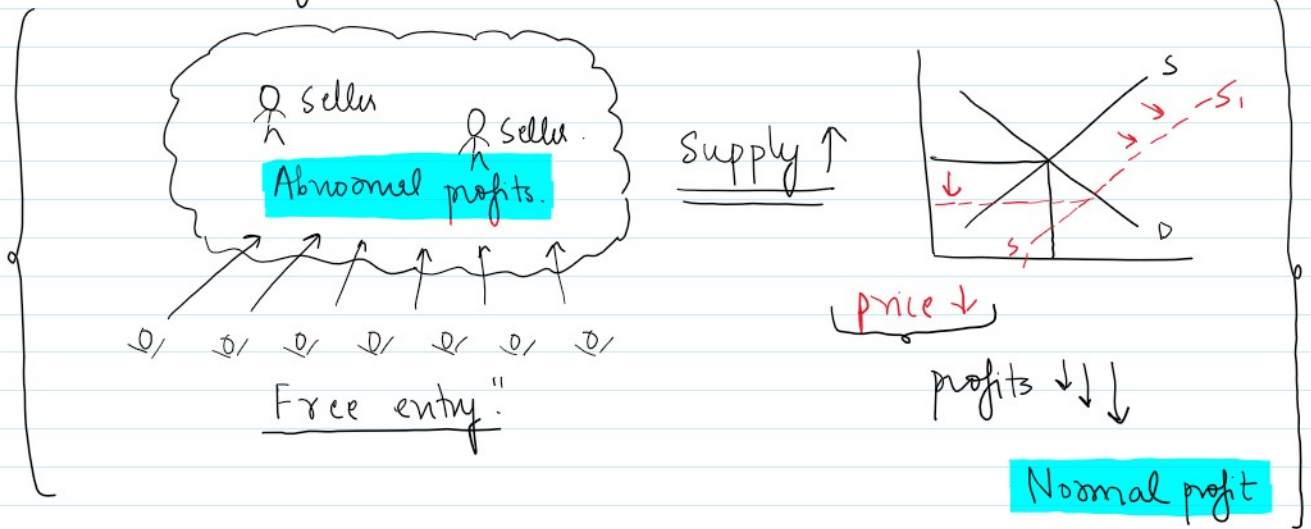
- All the firms will earn in long run



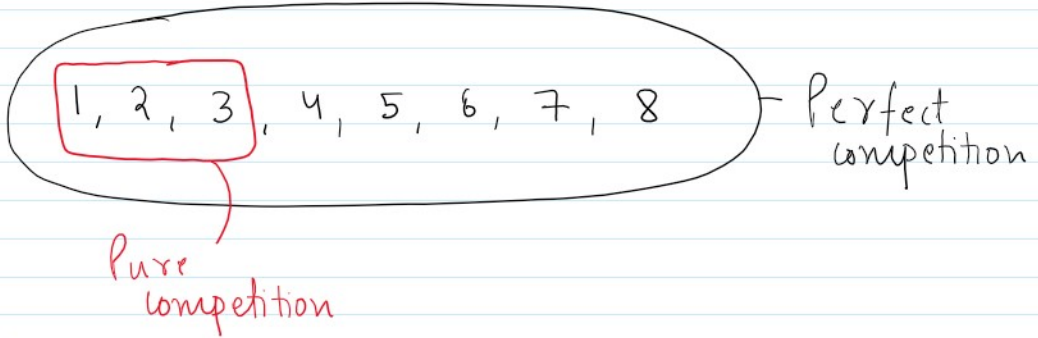
in why our

$AR = AC$

Why ??



* First (3) features only are known as PURE competition



(iv) Perfect Knowledge of Market
Buyer Seller

(v) Free mobility of factors of production
easily transferable (Perfect mobility) Labour

(vi) No selling / Transportation cost is involved
Advertisement

(vii) Firms are Price taker

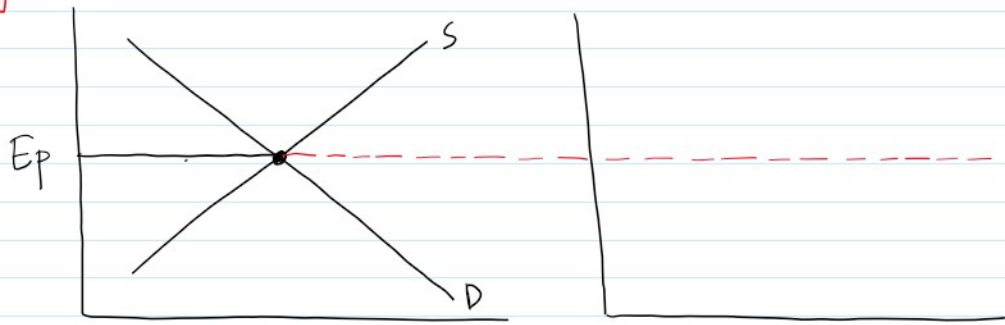
(vi)

Automobile Industry

Honda, Maruti, Hyundai, Tata, Mahindra

Industry is Group of firms

Firms are Price taker



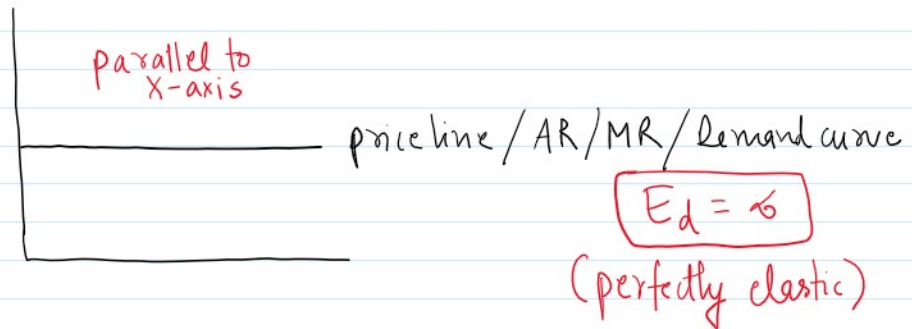
Industry is Price Maker

Firms are Price taker

* Perfect competition is also known as IDEAL Market or COMPETITIVE Market

* In perfect competition,

$$\text{Price} = \text{AR} = \text{MR} = \text{Demand curve} [E_d = \infty]$$



* Profit Maximisation (Producer's equilibrium)

(i) $MC = MR$

(ii) MC should cut MR from below i.e

MC should have positive slope (i.e rising)

{ $MC > MR$ after intersection }

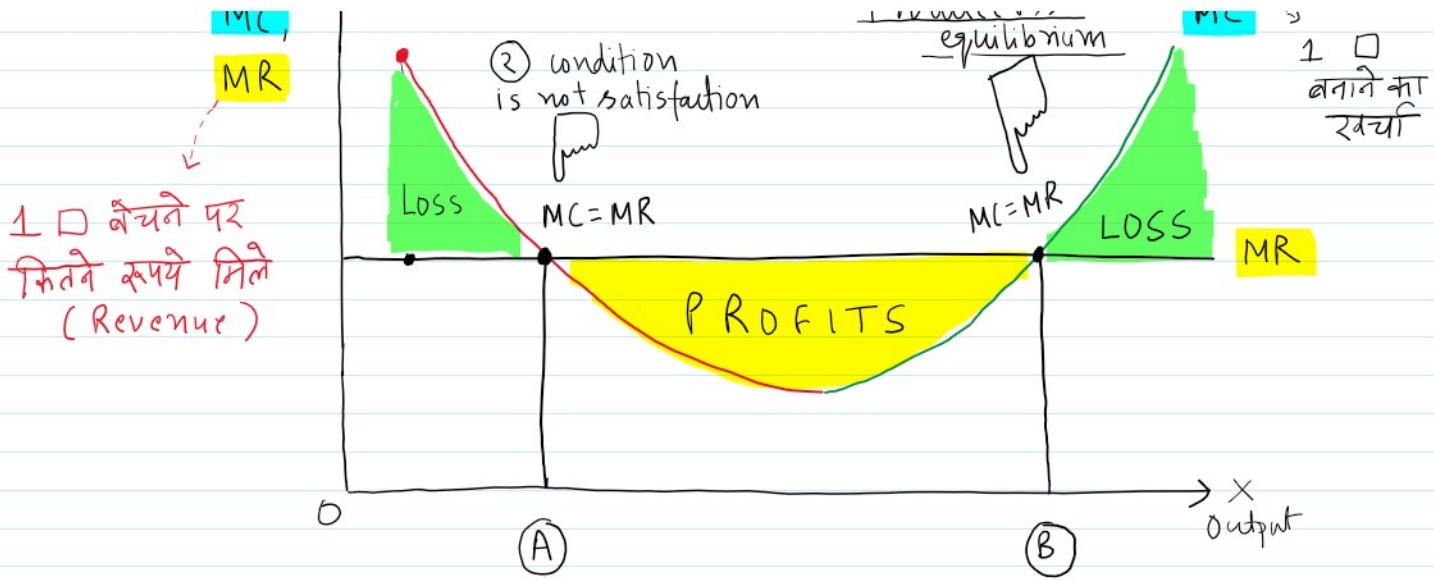


② condition is not satisfaction

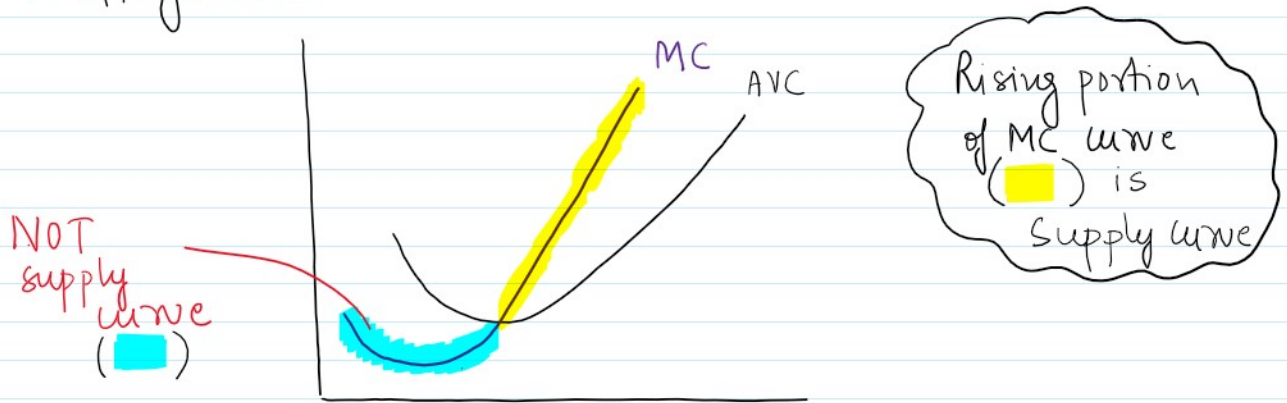
Producer's equilibrium



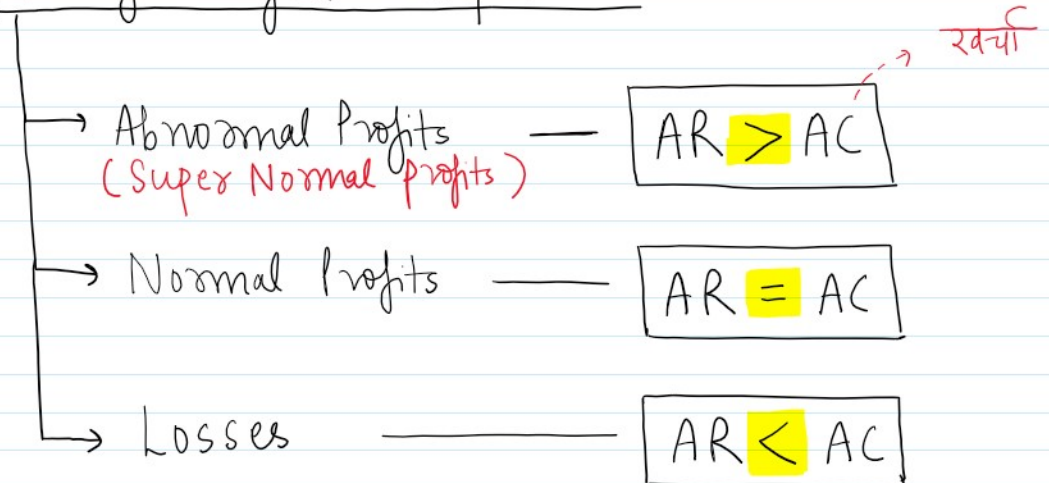
MC → 1 □ बनाने का



* Supply Curve



* Profits of Perfect Competition

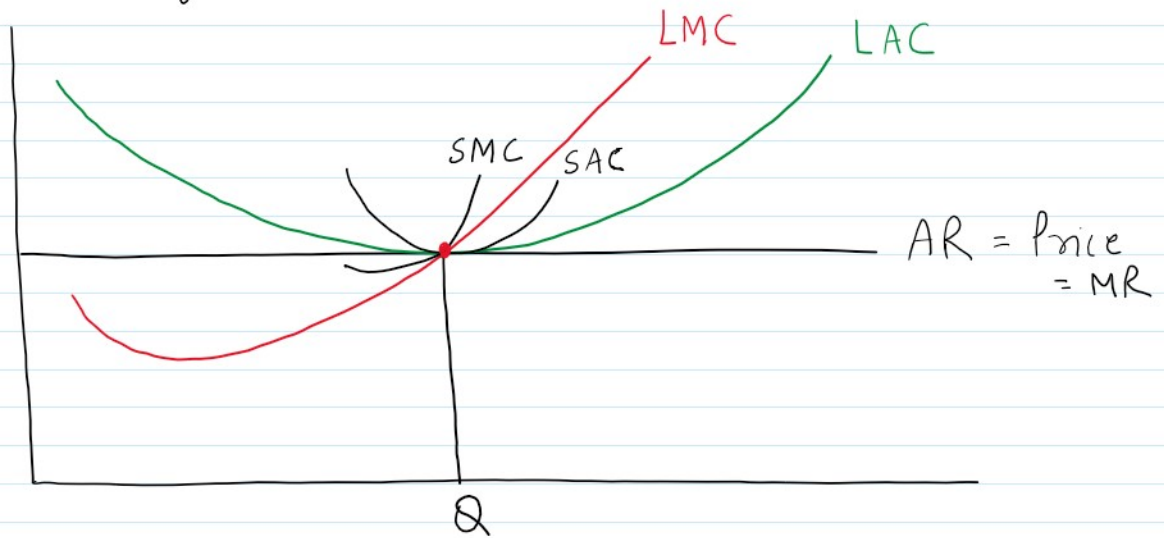


* Long Run Equilibrium of Producer

$$LMC = LAC = Price$$

$$LMC = LAC = \text{Price}$$

i.e. Minimum point of LAC should be **tangent** to demand curve (i.e. AR curve)



At Q , $SMC = SAC = LMC = LAC = \text{Price} = MR = AR$

→ Minima of LAC & SAC **Coincide**

→ This point shows **OPTIMUM COST**

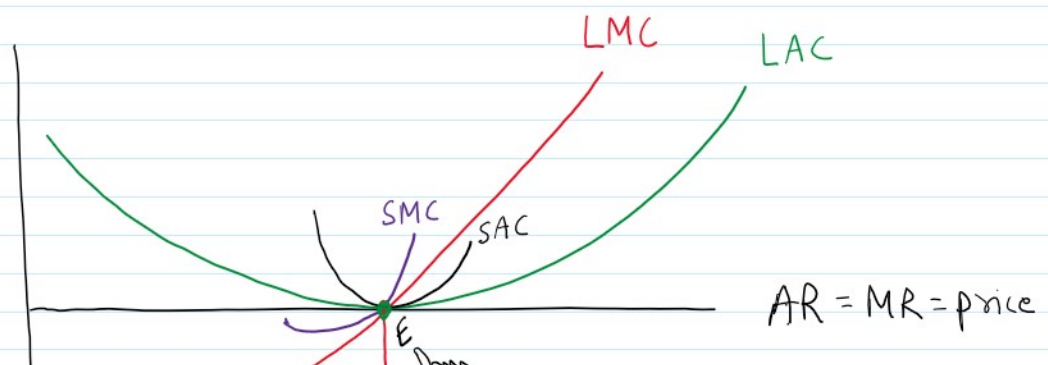
→ The firm operating at Q level is known as **OPTIMUM FIRM**

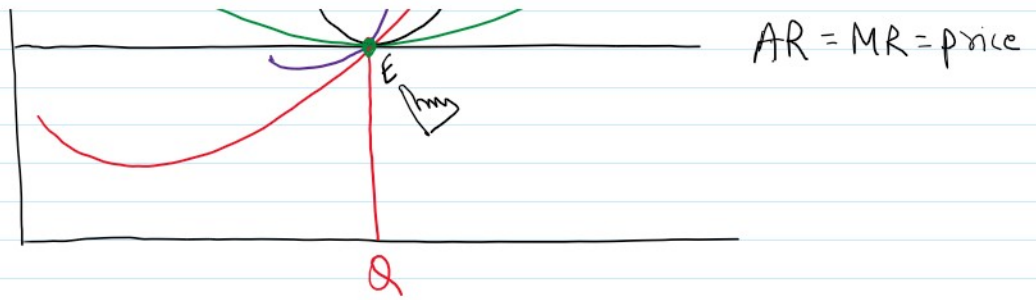
* **Long Run** Equilibrium of **INDUSTRY**

• When all the firms earn **normal profits**
AND

• No further entry or exit takes place

100%
* (R)
Sureshot





At point E

(i) $MC = AR$

Consumer pays Minimum price*

(ii) $MC = AC$

Plants are used at Full Capacity i.e. NO wastage

(iii) $AR = AC$

firms earn Normal Profit

(iv) $MR = MC$

Producer's equilibrium (Profit Maximisation)

II

MONOPOLY

(eg. Railways)

Single

Seller

→ Single seller - Seller is Price Maker i.e. substantial control over supply

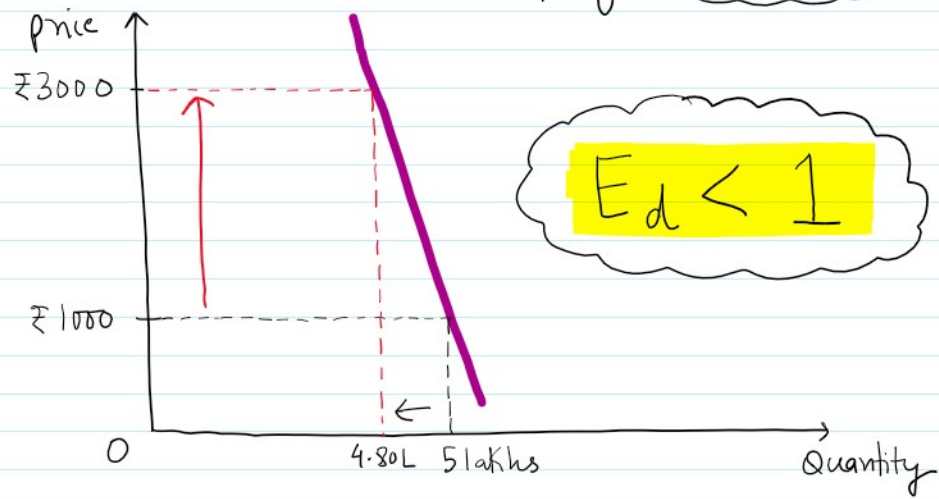
→ Restriction in Entry
↳ very tough entry of new firms.

→ No close substitute

∴ Cross elasticity is "Zero"

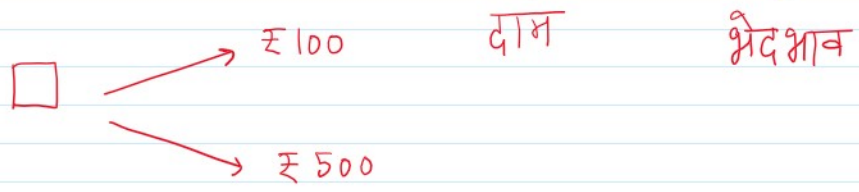
∴ Cross elasticity is Zero

* Demand curve (AR curve) is Downward sloping **STEEPER** curve



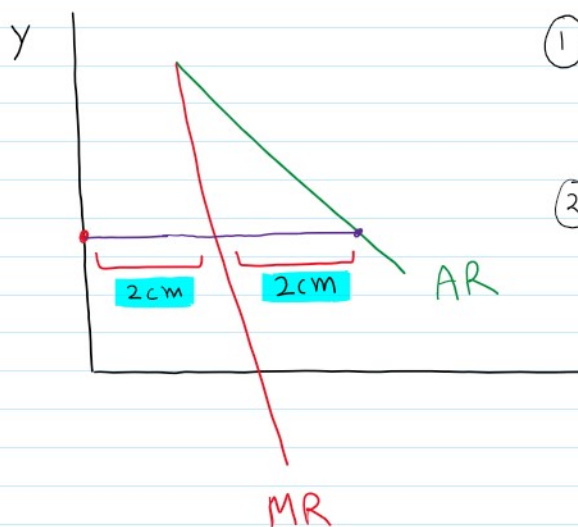
→ Monopolist has **market power** i.e. charging price above MC (i.e. $P > MC$)

→ Monopolist may adopt **price discrimination**



→ Monopolist can incur **losses also** ($AR < AC$)

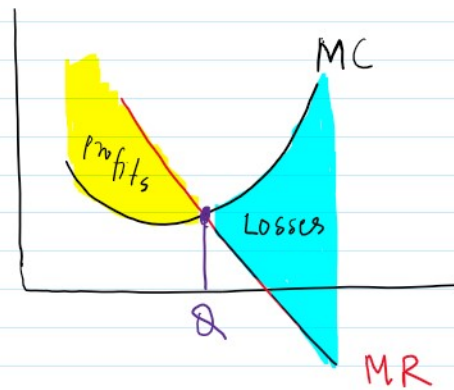
→ Relation of AR & MR



- ① Both AR & MR are downward sloping (negatively sloped)
- ② MR can be zero or (-)ve but AR remains positive
- ③ **MR** curve lies half way between Y-axis and AR curve

* Producer's equilibrium (Profit Maximisation)

$$MR = MC$$



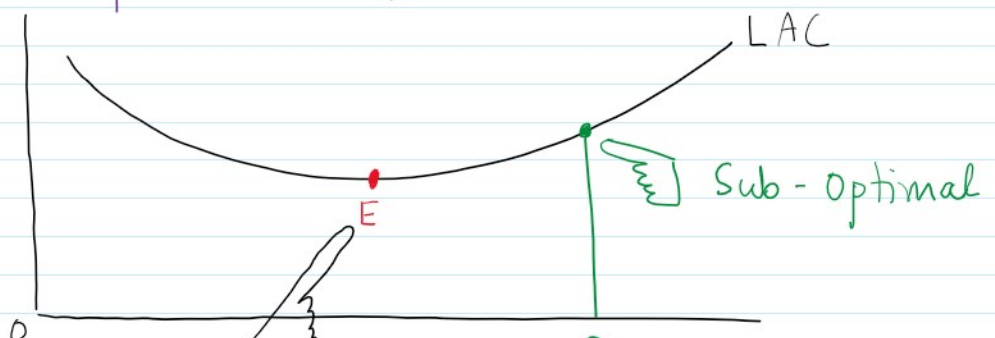
* Profits under Monopoly

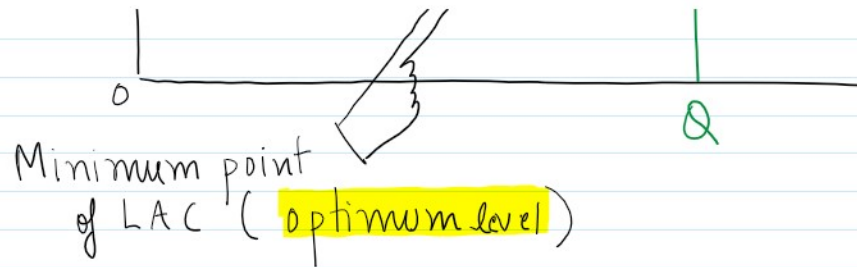
- Abnormal profit : $AR > AC$
- Normal profit : $AR = AC$
- Losses : $AR < AC$

* Long Run

In long run, Monopolist may earn abnormal profits (because there is restriction on entry of new firms)

In long run, monopolist need not produce on optimum level (i.e. they can produce at sub optimal level)





* How do monopoly arise ??

Raw Materials

• Strategic control over resources

Patents

• Government granting exclusive rights

$\square + \square + \square$

• Business Combinations (like Cartel)

$\frac{1}{2a-4}$

• Extremely large start up cost

• firm may use anti competitive practice like predatory / limit pricing

₹ 25/-
(MRP)

COST	100
profit	20
MRP	120

* Price discrimination

V. Imp 100%

① objectives

- to earn maximum profits
- to capture foreign markets
- to enjoy economies of scale (dispose excess stock)

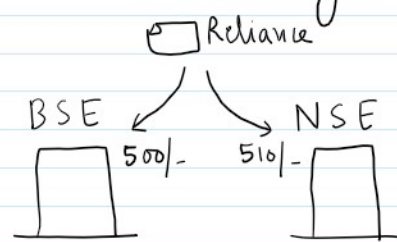
② Price discrimination is possible only when the following conditions are satisfied :-

- Monopoly must exist

- Monopoly must exist
- Seller must be able to divide the market into sub markets.
- Price elasticity is different in different sub markets.



- No market arbitrage



③ Degrees of Price Discrimination - AC Pigou

First degree - Price is such that it takes away **ENTIRE** consumer surplus

Second degree - Price is such that it takes only **A PART** of consumer surplus

Third degree - Price varies because of **Location** or customer segment

"Popcorn in Cinema Hall"

* Price discrimination may relate to time, size of purchase, income etc.

III MONOPOLISTIC COMPETITION

(Blend of Perfect + Monopoly)

eg Soap Industry

(1) Large number of Buyers + Sellers
→ Individual Buyer or individual seller has a very small share in the market

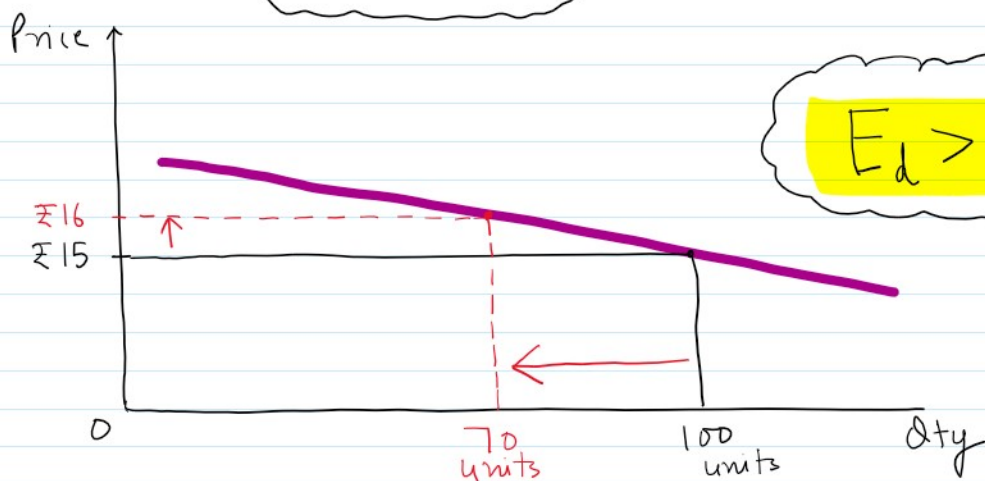
(2) Product differentiation

→ Heterogeneous products (i.e. similar)

→ Products are "close substitutes"

→ Demand curve is downward sloping

FLATTER curve



(iii) Free entry + exit of firms

- firms will earn normal profits ($AR = AC$) in long run

(iv) Huge Selling cost is involved

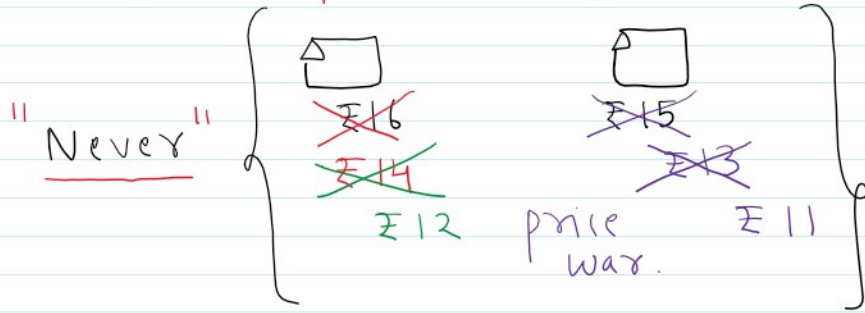
↙ Advertisement expenses

(v) Non Price competition

(NO price war)

(v) Monopolistic Competition

(NO price war)



* Equilibrium (Profit Maximisation)

$$MR = MC$$

* Profits

- Abnormal profits : $AR > AC$
- Normal profits : $AR = AC$
- Losses : $AR < AC$

* In Long Run, all the firms earn Normal profits

Zero "Super Normal Profits"

IV OLIGOPOLY

(i) Competition among few

2-10

(ii) Strategic interdependence

will

- (ii) Strategic Interdependence
- (iii) Group Behavior
- (iv) Price Rigidity
- (v) Product may be Homogeneous or Heterogeneous

will discuss later

cold drink

Cement, LPG

- (vi) Entry of new firms are Very difficult
- (vii) Huge selling cost is involved

Types of oligopoly :-

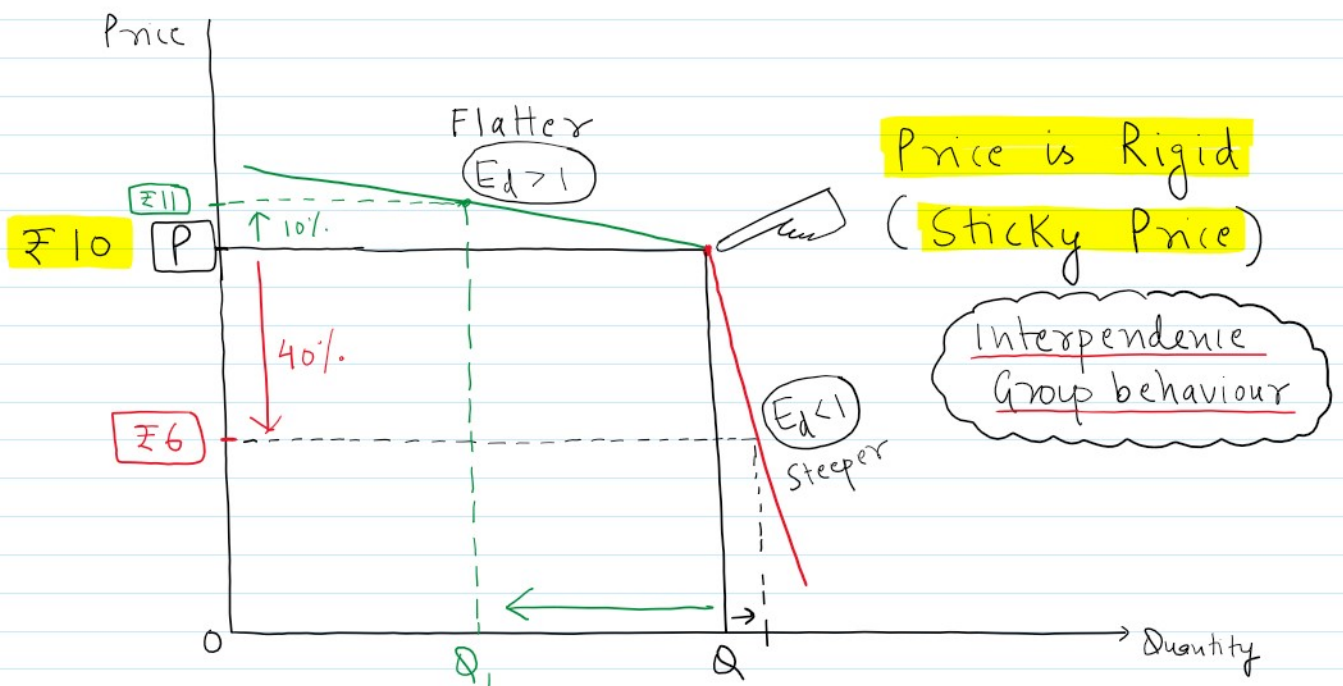
- ① Pure (perfect) - homogeneous product
- ② Differentiated (imperfect) - heterogeneous product
- ③ Open - New firms can enter
- ④ Closed - Entry is Restricted
- ⑤ Collusive - commonly decide price + output
- ⑥ Non Collusive (competitive) - compete with each other
- ⑦ Partial - Industry is dominated by one large firm
- ⑧ Full - NO leadership
- ⑨ Syndicated - Small group control it i.e. centralised body.

Pushpa

- 9 Syndicated - Small group control it i.e. centralised body.
- 10 Organised - All firms decide their output (centrally organised)

* Demand Curve

→ Due to price rigidity, demand curve is **KINKED** (given by Sweezy)



→ Response to price increase is more than response to price decrease

* Price & Output decision

गिन (Price) मिनने सोवे (Output)

(i) Interdependence is ignored then output is determined by $MC = MR$ (profit Maximisation)

(ii) Oligopolist tries to predict the reaction of his

(ii) Oligopolist tries to predict the reaction of his competitor

<p><u>Cournot model</u></p> <p>↓</p> <p>each firm decides its <u>output</u></p>	<p><u>Stackel Berg's model</u></p> <p><u>Leader</u> decides the <u>output</u></p>	<p><u>Bertrend model</u></p> <p>Each firm decides its <u>price</u></p>
---	---	--

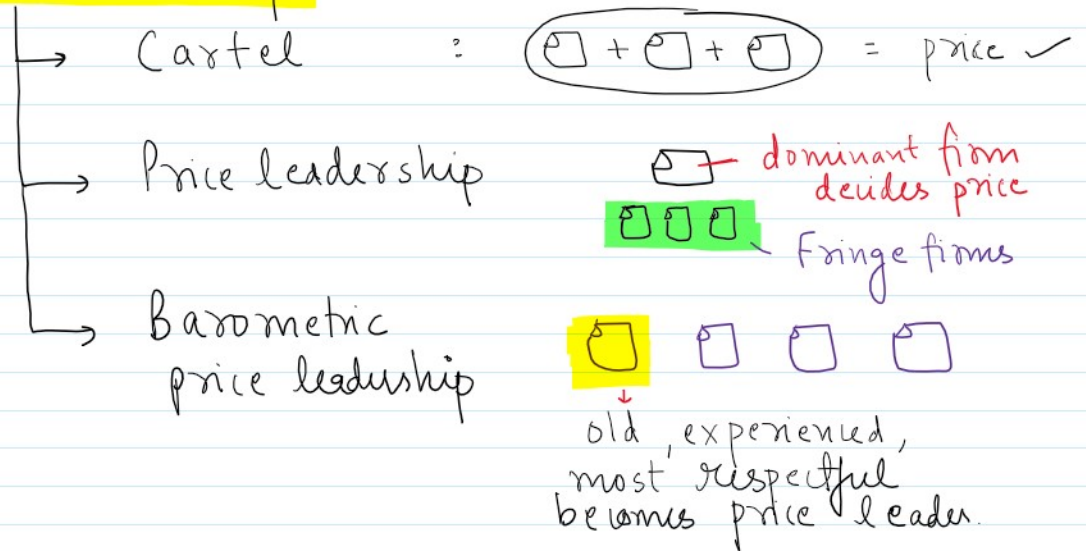
(iii) Oligopoly firms may act as monopoly and fix their prices to enjoy maximum profits

(eg OPEC)

Organisation of Petroleum Exporting Countries.

$$\square + \square + \square + \square + \square = 1$$

* Price Leadership



* Duo poly

- Two Sellers

Monopsony

- Single Buyer

Oligopsony

- Few large Buyers

Bilateral Monopoly

- One Buyer + One Seller.