

Qh 04 :- Price Determination in Different Market

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Unit 01 :- Meaning & Types of Markets

- **Free Goods** → Free or having 0 price & X take any payment for them ex sunlight, air etc
→ abundant in supply + X have scarcity
- **Economic Goods** → Scarce in relation to their demand + opportunity cost
- **Value in use** → Refers to ^{जब हमारे sentiments होते हैं किसी चीज में तो हम उसे किसी भी value में लेते हैं जिसे हम satisfaction मानते हैं} Usefulness / utility → the attributes which a thing may have to satisfy human needs. For GF के लिए हम कुछ लेना है।
→ Sentimental values ✓
- **Value in Exchange** → Value of Goods & Services → obtained in the Market → Exchange of a particular thing
→ असा मूल्य को Market में कुछ लेना है तो मैं किसी Pair, दुग्गा
→ Economic value ✓ + opportunity cost of money
→ In Economics concerned only this value → Determined in the market

- **Market** → Collection of Buyer + Seller → with potential to trade ✓
→ In other words → All those Buyer + Seller → of GSS who influence price
→ market bargaining nature

Elements of a Market :-
 (i) Buyer & Sellers
 (ii) A product or Service
 (iii) Bargaining for a price
 (iv) Knowledge about Market Conditions
 (v) One price for a product or Service at a given time.

- ★ **Classification of Market**
 - Product Market → Household buy the GSS
 - Factor Market → Firm buy the Resource they need (Factor inputs) → ex Land, Labour etc.
- On the Basis of Geographical area

- **Local Market** → Buyer + Seller → Ltd to local area or region
→ Generally → Highly perishable goods + bulky articles के लिए होती है ये market
- **Regional Market** → Cover a wider area → Few adjacent cities, parts of states, Cluster of states
→ size of the market is generally large + Nature of Buyer may vary in their Demand characteristics
→ For Investment Assart Sarc

• National Markets → Demand Gov a commodity or services → Ltd to national boundaries of a country → Means 4th country Market & Buy & Sell Product
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 For ex - Hindi Book

• International Market → Said → When it is exchanged internationally
 Usually → high value small bulk commodities → are demanded & trade internationally
 For ex - Gold & Silver

→ On the Basis of Time → Alfred Marshall

• Very Short period Market (Market Period) → Refers → Supply → Fixed ✓
 Perishable → eg vegetables, fruits etc
 Price is dependent on Demand → Δ P ∝ Δ D
 ↳ But supply is fixed

• Short Period Market → Period → Which is slightly longer than the very short period
 Supply may ↑ → By variable factors ↑ (Same as Short Run)
 Supply moderately adjusted → Δ in Price due to Δ in Demand → are less compared to Very short period market

• Long Period Market → Same as long run + Supply is fully adjusted
 Interaction between long run supply + long run demand → Determines long run equilibrium price & Normal Price ✓

• Very long - period or Secular Period

→ On the Basis of Nature of Transaction

• Spot or Cash Market → Where Goods are exchanged → Money either immediately or within short span of time
 ↳ ex - Grain sold in the market

• Forward or Future Market → Transaction involve contract + Promise to pay + Deliver goods at some future date
 ↳ ex - Shares

→ On the Basis of Regulation

- **Regulated Market** → transactions are Statutorily Regulated → Put an end to unfair practices
For ex SEBI for Stock exchange

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- **Unregulated Market** → **Free Market** ✓
No stipulations on the transactions → For Weekly Markets

→ On the Basis of Volume of Biz.

- **Wholesale Market** → Commodities Bought & Sold → In Bulk or large qⁿ
Transactions between B2B

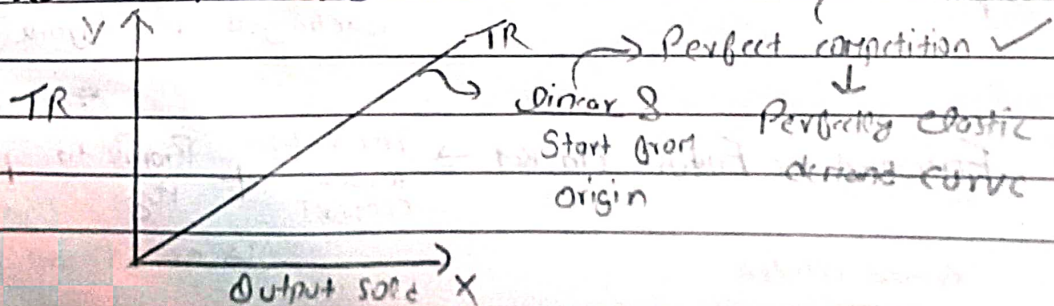
- **Retail Market** → Commodities Sold in small qⁿ
Transactions bet. B2C

1.1 Types of Market Structures

Assumption	Market Type			
	Perfect Competition	Monopolistic Comp	Oligopoly	Monopoly
No. of Seller	Very large	Large	Small No.	One
Product Differentiation	None (Identical Product etc)	Slight (Similar Product)	None to Substantial	Extreme
Price Elasticity of Demand	∞	Large	Small	Small
Degree of Control over Price	None	Some	Some	Very Considerable

1.2 Concepts of TR, AR & MR

→ Total Revenue (TR) → Price × Qⁿ sold



Good Write

→ Average Revenue \leftarrow Revenue earned/unit of output
 $\frac{TR}{Q}$ OR $AR = P$ (Price of one unit of output)
 AR curve is also the Firm's Demand Curve
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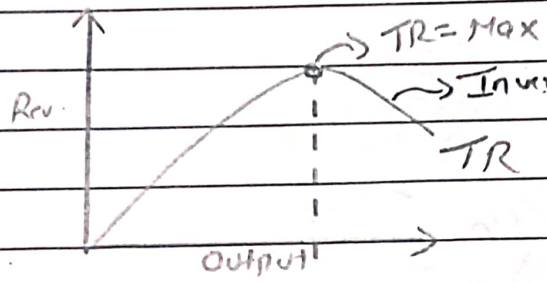
→ Marginal Revenue \leftarrow ΔTR Resulting From Sale of an \uparrow Unit of commodity
 $\frac{\Delta TR}{\Delta Q}$ & Slope of TR

Note Imperfect competition
 * $AR \downarrow MR \downarrow$ ($AR > MR$)

Price constant
 Perfect competition
 * $MR = AR = Price$

* $AR = Price \rightarrow$ All types of market

★ Imperfect Competition Curve

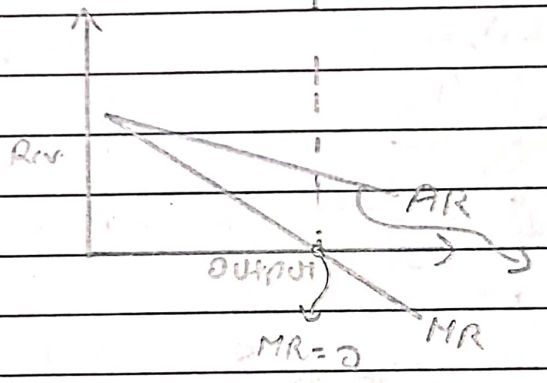


(i) $TR \uparrow$ at Decreasing Rate due to $MR \downarrow$ but $+ve$
 (Observations \rightarrow \rightarrow Diminishing)

(ii) $MR = 0 \rightarrow TR = Max$

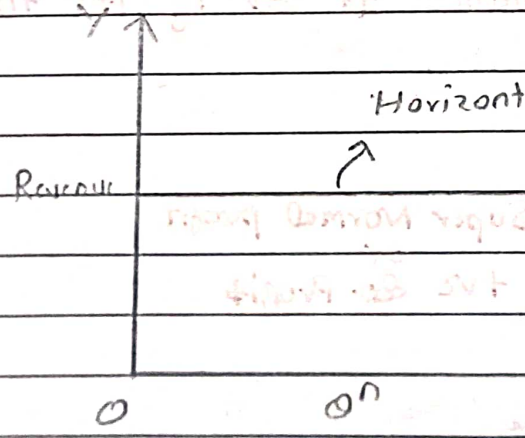
(iii) $MR = -ve \rightarrow TR \downarrow$

(iv) $AR \downarrow + MR \downarrow$ but $AR > MR$



More Rapidly
 Bcz any redⁿ in price applies to All units sold
 Bcz inverse relation

★ Perfect Competition Curve



Horizontal straight line // to x-axis

$AR = MR = Price$

Observations :-

(i) Constant AR (Price) schedule

(ii) Demand ($E_p = \infty$)

(iii) $TR \rightarrow$ Upward sloping straight line

★ Relationship Between AR, TR, MR & Price Elasticity of Demand

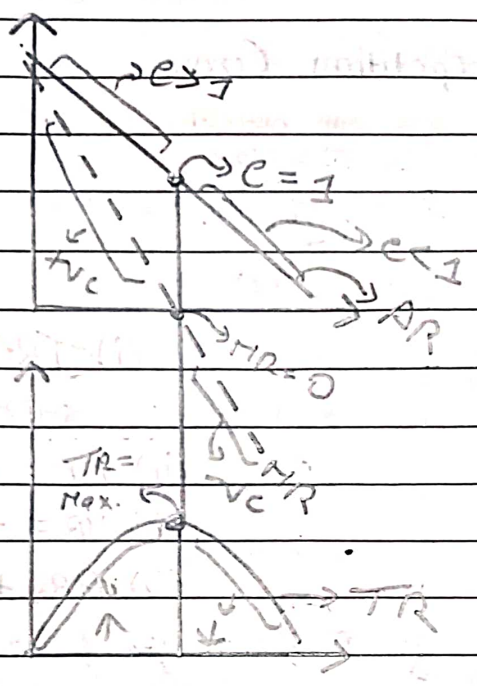
→ $MR = AR \times \frac{e-1}{e}$ * e = Price Elasticity of Demand

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★ Imp Observation of this Formula

Formula mei Minus sign ignore krna

	MR	TR
• $e = 1$	0	Max.
• $e > 1$	+ve	Increase
• $e < 1$	-ve	Decrease



★ Behavioural Principles

Imp Principle 1: A Firm should not produce at all if its total variable cost are not met.

1. $TR > TC$
 $AR > AC$ → Continue & Super Normal profit or +ve Eco. Profit

2. $TR = TC$
 $AR = AC$ → Continue & Normal Profit or zero eco. Profit

Good Write

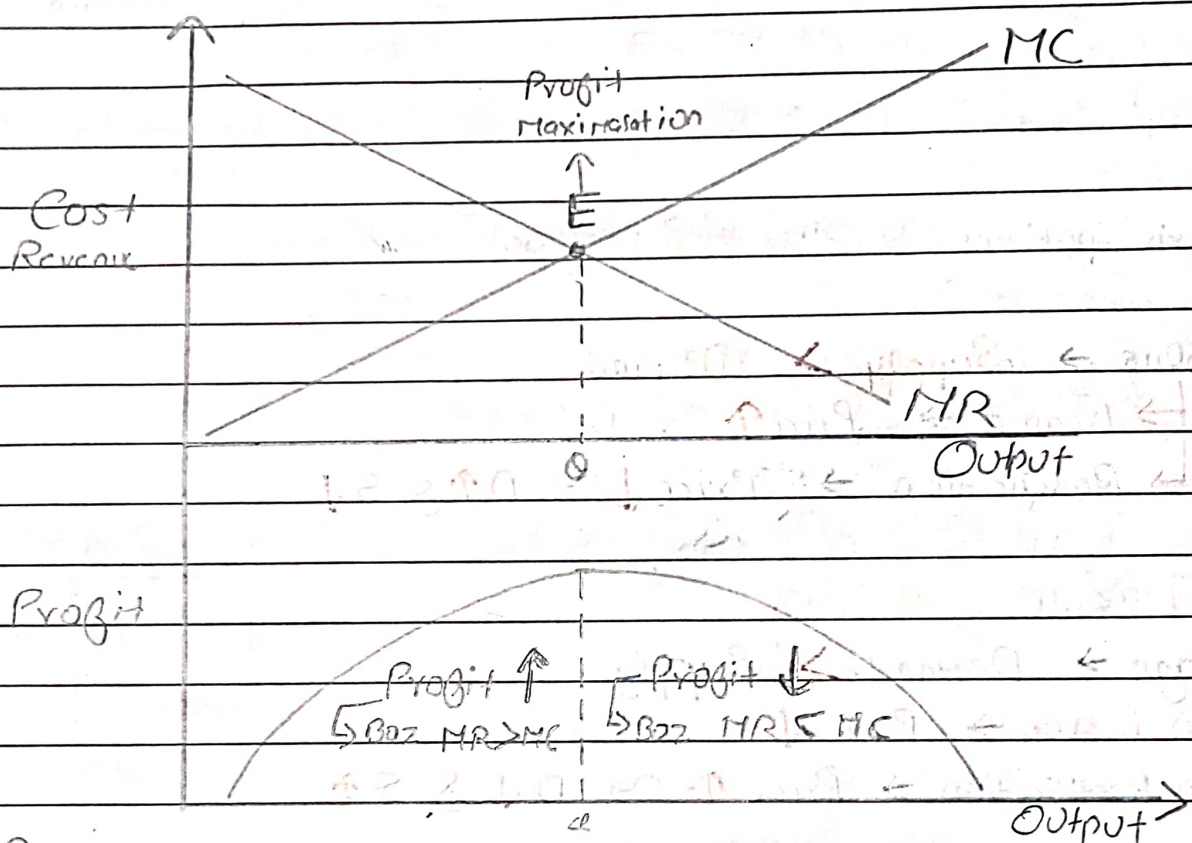
3) $TR < TC \rightsquigarrow (AR < AC)$ \rightarrow $TR < TVC \rightsquigarrow (AR = AVC)$

$TR > TVC \rightarrow AR > AVC$ Continue
 $TR < TVC \rightarrow AR < AVC$ Shut Down

Shut Down Point
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 * AT Shut Down Point
 $\rightarrow Price = AVC$
 $\rightarrow TR = TVC$
 $\rightarrow Total Loss = TFC$

* Shut down in long run $\Rightarrow AR = ATC$

Principle 2 :- The Firm will be making Maximum profits by expanding output to the level where Marginal Revenue is equal to MC.

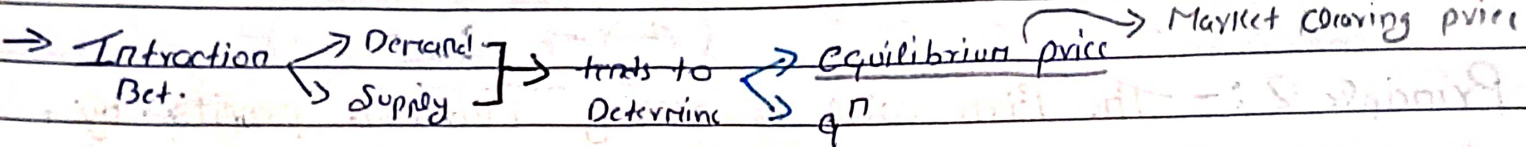


So * $[MR = MC] \rightsquigarrow$ Firm will Maximize profit at the Profit
 \hookrightarrow Means that at $MR = MC$ the firm will have Profit \uparrow

Unit 02 :- Determination of Prices

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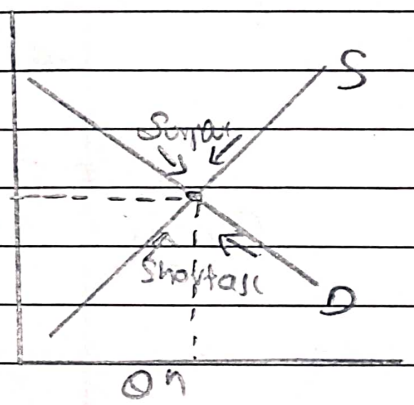
(2.1) Determination of Prices - A General View



• Equilibrium is said to be stable if any disturbance to it is self-adjusting. Original equilibrium is restored.
 ↳ Equilibrium को stable तब कहते हैं जब Market में कोई भी disturbance इस से आते ही Market cover कि वृत्त से self-adjusting होकर equilibrium पे आ जाते हैं।

* Ceteris paribus → Other things constant except Price.

MP > EP
 • Surplus → Supply > Demand
 ↳ Reason → Price ↑ ~ D ↓ & S ↑
 ↳ Rectification → Price ↓ ~ D ↑ & S ↓
 ↳ Some time after the market will reach equilibrium again.



MP < EP
 • Shortage → Demand > Supply
 ↳ Reason → Price ↓ ~ D ↑ & S ↓
 ↳ Rectification → Price ↑ ~ D ↓ & S ↑
 ↳ Some time after the market will reach equilibrium again.

(2.2) Change in Demand & Supply → ceteris paribus

1) Increase in Demand → Shortage
 P ↑ Q ↑ ~ SA case में D ↑
 ↳ Since Demand ↑ & supply constant & V.V. में short होकर बचे के लिए P ↑ SA

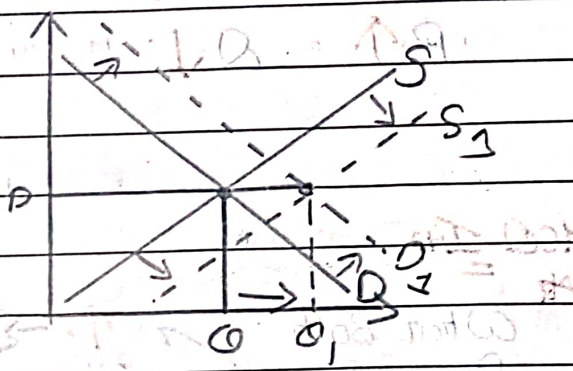
2) Decrease in Demand → Surplus
 P ↓ Q ↓ ~ SA case में D ↓
 ↳ Since Demand ↓ & supply constant & V.V. में P ↓ SA

3) Increase in Supply \rightarrow Surplus
 $P \downarrow$ $Q \uparrow$ $S \uparrow$
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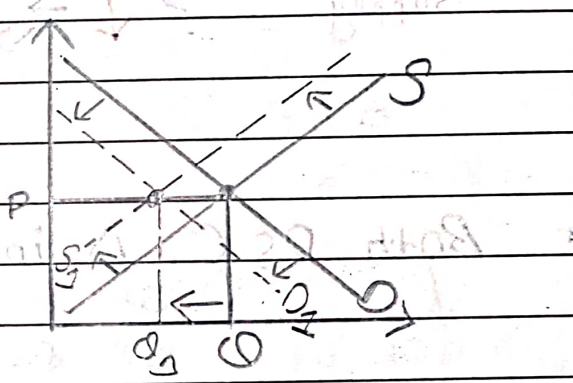
4) Decrease in Supply \rightarrow Shortage
 $P \uparrow$ $Q \downarrow$ $S \downarrow$
 $P \uparrow$ $Q \downarrow$
 Means $S \uparrow$ $D \downarrow$ $Q \uparrow$ $P \downarrow$ $S \downarrow$ $Q \downarrow$ $P \uparrow$ $D \downarrow$
 $P = \text{Price}$
 $Q = \text{equilibrium}$
 Q^n

2.3 Simultaneous Changes in Demand & Supply

1) \uparrow in Demand = \uparrow in Supply \rightarrow
 Price Remains Constant
 $Q \uparrow$
 Means
 New equilibrium Price = Old equilibrium Price

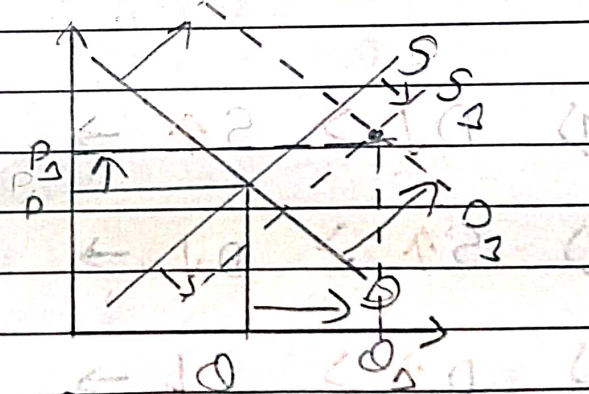


2) \downarrow in Demand = \downarrow in Supply \rightarrow
 Price Remains Constant
 $Q \downarrow$
 Same

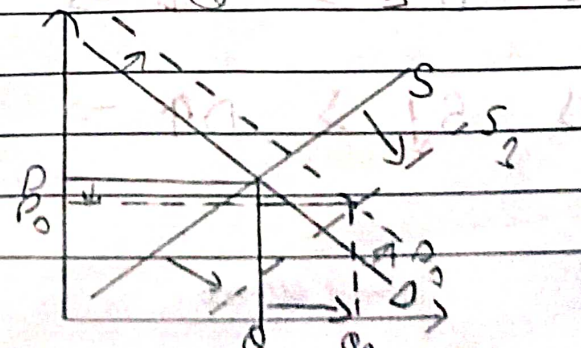


Case of 1) When Both Increase

• \uparrow in Demand $>$ \uparrow in supply \rightarrow
 Shortage
 $P \uparrow$ $Q \uparrow$



• \uparrow in Supply $>$ \uparrow in Demand
 Surplus

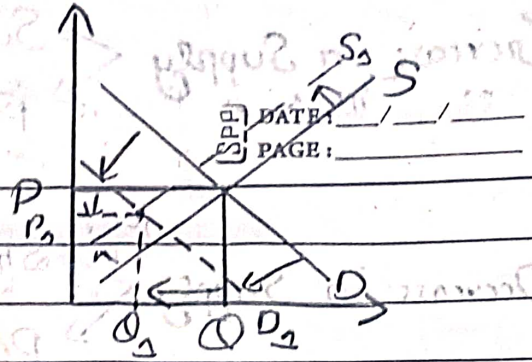


Cases of 2) When Both Decreases

• \downarrow in Demand \rightarrow \downarrow in supply \rightarrow

Surplus

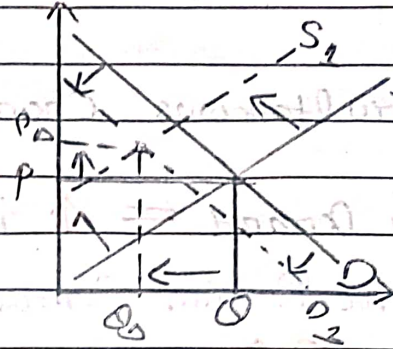
$P \downarrow$ $Q \downarrow$



• \downarrow in Supply \rightarrow \downarrow in Demand \rightarrow

Shortage

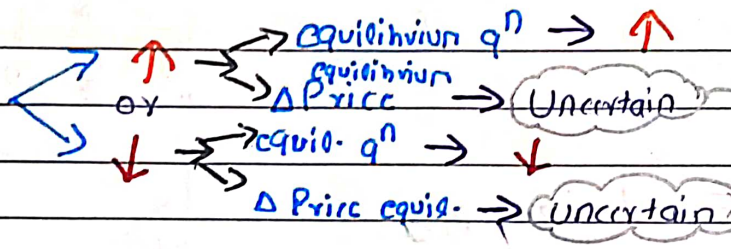
$P \uparrow$ $Q \downarrow$



$MCO = Imp$

*

When Both Demand & Supply



Bo2 हमें पता होना चाहिए कि DSS कि कितना \uparrow या \downarrow हो रहा है।

* Both D & S Δ in Opposite Direction

\rightarrow हमें इन Dominating Factor देखने हैं। means कौन का है।
 हमें बोलना पड़े कि ये हमें Case of Δ 8 2 में ही 99% SKTC hai
 एक बन सकते हैं BUT Dominating Factor: देखना है। easy है। नीला है \rightarrow Graph Bro

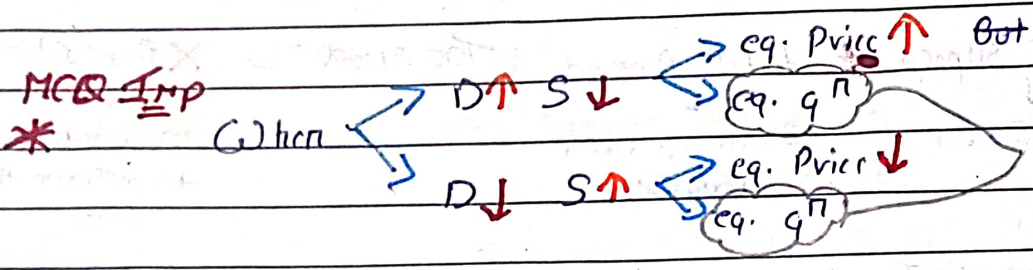
- 1) $D \downarrow > S \uparrow \rightarrow P \downarrow Q \downarrow$
- 2) $S \uparrow > D \downarrow \rightarrow P \downarrow Q \uparrow$
- 3) $D \uparrow > S \downarrow \rightarrow P \uparrow Q \uparrow$
- 4) $S \downarrow > D \uparrow \rightarrow P \uparrow Q \downarrow$

* Short cut

1) अगर Dominating Factor Demand है तो उसका Direct Relation है
 Equil. P और Equil. q^n के साथ

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2) अगर Domination Factor Supply है तो उसका Inverse Relation है
 Equil. P और Equil. q^n के साथ



BUT Nothing certain can be said about the Δ in eq. q^n .

Q Time element was conceived by \rightarrow Marshall

Q The Regulatory mechanism of the Market system \rightarrow

Competition

Q Price ceiling \rightarrow Maximum price that can be charged for a good.

Unit 03 :- Price - Output Determination Under Different Market Form

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3.0 Perfect Competition → Characteristics

(i) Large no. of buyer & seller & $\left[\begin{array}{l} \text{total supply} + \text{total demand} \\ \downarrow \text{Share of each seller} \quad \downarrow \text{Share of each Buyer} \end{array} \right] \rightarrow$ Too small \rightarrow ~~X~~ Buyer or seller in position to influence the price

(ii) Product supplied by all firms $\left\{ \begin{array}{l} \text{identical} \\ \text{Homogeneous} \end{array} \right\} +$ Goods sold \rightarrow at a single market price $+ \text{Perfect substitute}$

(iii) Every firm is free to $\left\{ \begin{array}{l} \text{enter the market} \\ \text{to go out of it} \end{array} \right\}$ means no legal or market related barriers

* Above 3 condition are fulfilled \rightarrow Pure competition ✓

(iv) Buyer or seller \rightarrow Perfect knowledge of the market conditions.
 \rightarrow nature of product & price etc

(v) PCM \rightarrow very low transaction costs

(vi) All firms individuals are price takers
 \rightarrow All firms accept price determined by market

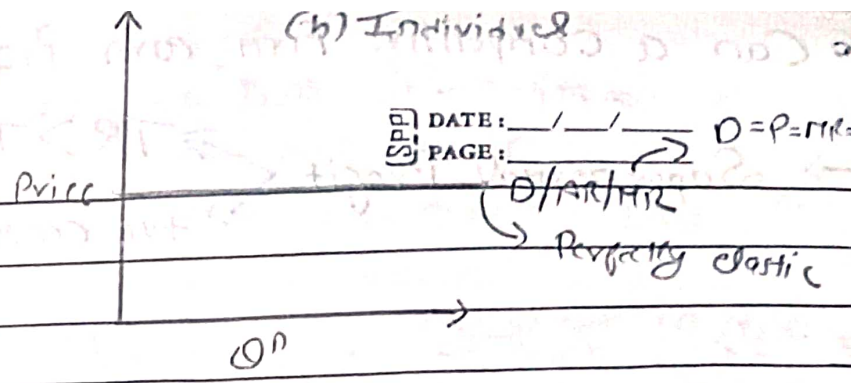
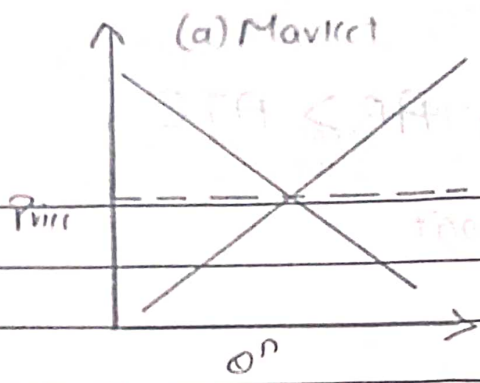
Ex of PCM \rightarrow Financial Instrument $\left\{ \begin{array}{l} \text{Stock} \\ \text{Bond} \\ \text{Foreign Exchange} \end{array} \right\}$ or Precious Metals $\left\{ \begin{array}{l} \text{Gold} \\ \text{Silver} \\ \text{Platinum} \end{array} \right\}$ or agricultural Product

* Price Discrimination ~~X~~ \rightarrow One seller has no influence over market price

3.0.1 Price Determination Under Perfect Competition

• Equilibrium of the Industry $\rightarrow \left[\begin{array}{l} \text{total supply of industry} \\ \text{of industry} \end{array} \right] = \text{total Demand} \rightarrow$ Industry is in equilibrium ✓
 equilibrium price ✓
 $\rightarrow \text{Eqi. Output} = \text{Total Supply} = \text{Total Demand}$

• Equilibrium of Individual firm \rightarrow when $\left\{ \begin{array}{l} \text{maximising its profits} \\ \text{no incentive to expand prodn or contract} \end{array} \right\}$ ✓
 \rightarrow Eqi Output \rightarrow Output which gives max. profit to the firm.



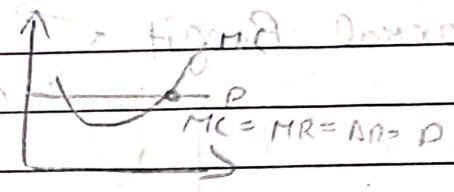
★ Conditions for equilibrium of firm In Short Run

(i) Firm Profit Maximize when $\rightarrow MR = MC$ Normally

But under PCM $\rightarrow MC = P$

$\rightarrow MR = AR = P$ Baat ek hi hai

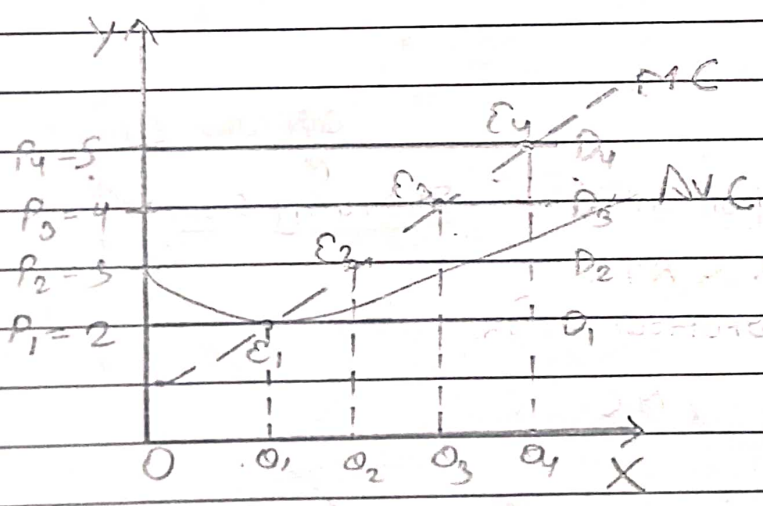
(ii) MC Curve should cut MR Curve from Below. In other words, MC should have a +ve slope.



★ Short Run Supply Curve of the firm in a competitive market

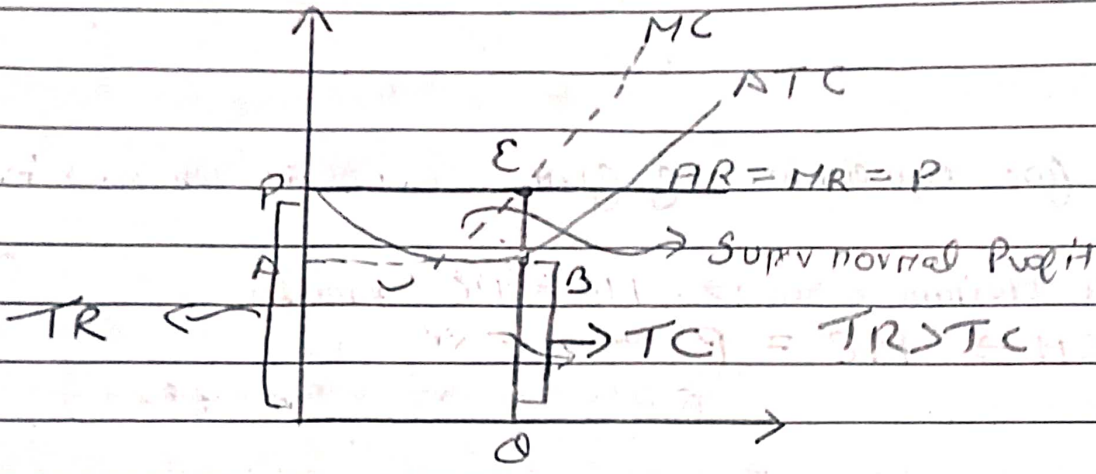
$\rightarrow MC$ curve = Firm's Supply Curve

\rightarrow When MC, above AVC

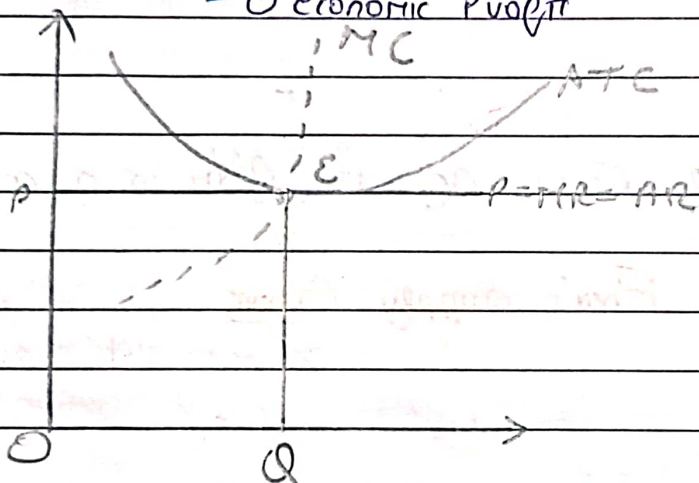


• Can a competitive firm earn profits? In short run

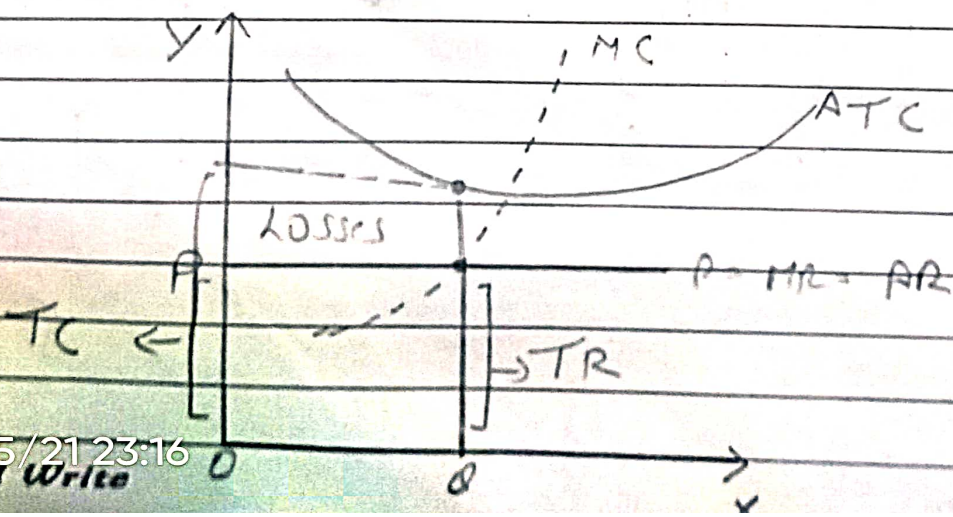
→ Supernormal Profit $\left\{ \begin{array}{l} TR > TC \text{ or } AR > ATC \\ +ve \text{ economic profit} \end{array} \right.$



→ Normal Profit $\left\{ \begin{array}{l} TR = TC \text{ or } AR = ATC \\ 0 \text{ economic profit} \end{array} \right.$



→ Losses $\left\{ \begin{array}{l} \text{Firm} \rightarrow \text{equilibrium position} \checkmark + \text{Still making losses} \checkmark \\ TR < TC \text{ or } AR < ATC \\ \text{But } AR < AVC \leadsto \text{Shutdown firm dena chahida} \end{array} \right.$



★ Long Run equilibrium of a Competitive Firm

• Firm equilibrium → They have adjusted their plant → To produce at the min. point of their long run ATC curve.

जब मैं उस plant पे आ रहा हूँ जो जहाँ पर मेरी Min. Cost होती है, Prodⁿ करती हूँ।

→ In long Run, Firm will be earning → Just Normal Profit

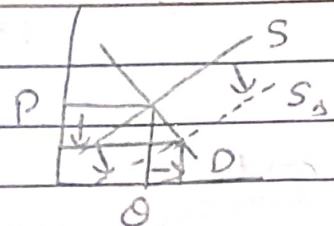
• If Firm making Supernormal Profit in Short Run

→ New Firm attracted into the industry

① Inc. in Supply → Existing Firm में inc. करती है, Demand में कोई change नहीं है

② Demand में कोई change नहीं है

③ Inc. in the cost of Factor of Prodⁿ → Demand of factor of Prodⁿ ↑ → Price ↑ → Firm Cost ↑ → Firm Profit ↓



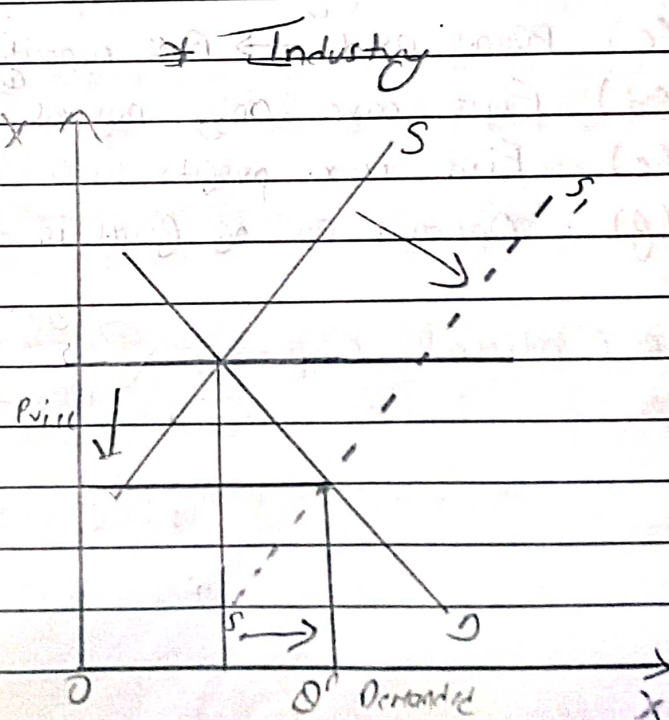
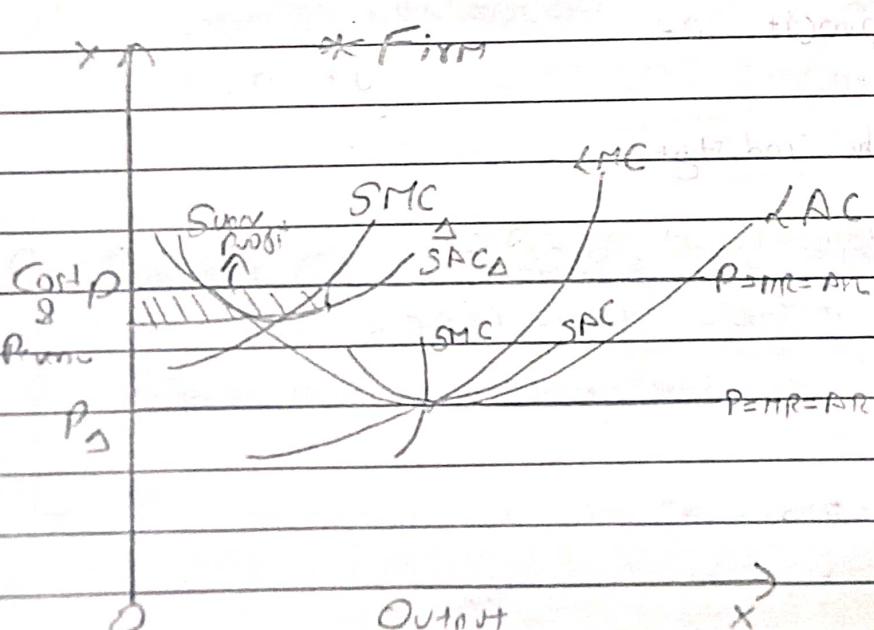
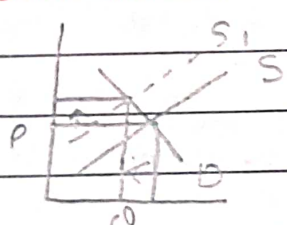
• If Firm Making Losses in SR

→ They will leave the industry in the LR

→ Dec. in supply

→ Demand no change

→ Dec. in cost of Factor of Prodⁿ → Demand of factor of Prodⁿ ↓ → Price ↓ → Firm Profit ↓



- Observation :-
- 1) LMC = LAC, Cost is Min.
 - 2) SMC = SAC, Cost, Min
 - 3) SMC = SMR, Max Profit

* Condition of LR Equilibrium of the Firm (Profit Max.) \Rightarrow Tangent to Demand Curve (Price)

$LMC = LAC = P$ \rightarrow $LMC = P$ (Profit Max.)
 \rightarrow $LMC = LAC$ (AC Curve)

OR

$LMC = LAC = P = SMC = SAC = MR$

★ Long Run Equilibrium of the industry Conditions :-

- \rightarrow All firms in the industry \rightarrow Equilibrium \leftarrow means all firms are maximising profit
- \rightarrow ~~X~~ Firm has incentive $\left\{ \begin{array}{l} \rightarrow \text{entry} \\ \rightarrow \text{exit} \end{array} \right\}$ the industry Bcz all firms earning normal profit or 0 Economic profit
- \rightarrow Total q^n supplied = Total q^n Demanded

• Optimum Firm \rightarrow Firm producing output at optimum cost
 \hookrightarrow In long run, all firms under PCM

■ The optimality is shown by the following outcomes associated with the long run equilibrium of the industry:

- (a) Output produced \rightarrow Min. Possible cost \leftarrow Allocative efficiency or $MR = MC = P$
- (b) Consumer pay the min. possible price \rightarrow which just cover the MC
- (c) Plant used \rightarrow Full capacity in LR ($MC = AC$) \leftarrow Productive efficiency
- (d) Firms earn only normal profit ($AR = AC$)
- (e) Firm max. profits ($MC = MR$)
- (f) Optimum no. of firms in the industry

• Optimal Capacity $\left\{ \begin{array}{l} \rightarrow \text{at min. point of } LAC \\ \rightarrow \text{Plant is fully utilised (SAC is min.)} \end{array} \right.$

★ **Monopoly** → Means "Alone to sell" & Absence of competition
 → No comp. bet Firms Industry
 → 1 Seller = Industry

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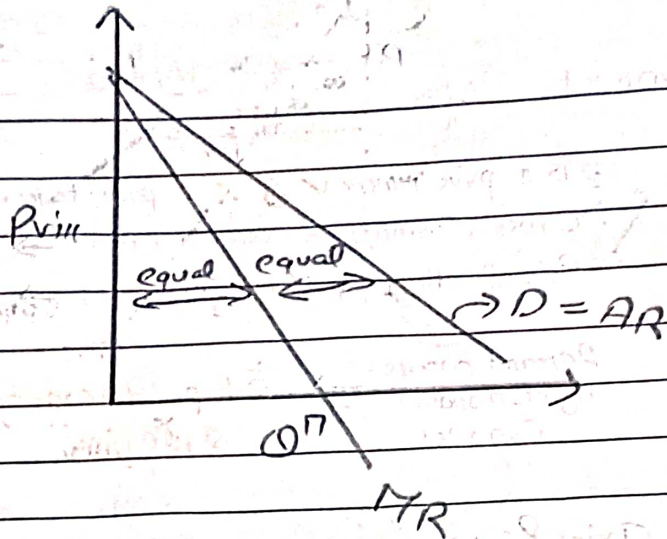
→ **Features :-**

- (i) Single Seller of the Product
 - (ii) Barrier to Entry → Economic Barrier, Legal Barrier etc.
 - (iii) No close substitutes → is a price maker ✓ & X a price taker
 - (iv) Market Power → Cross elasticity of Monopolist product → 0 or very small
 Price Elasticity of Monopolist product → Less than 1 ($E_p < 1$)
- Ability to Δ Price
 ↓
 (AR > MC) Positive Profit
- Demand curve of Monopolist product → **Step downwards sloping**
 & Supply curve → X

∴ How do monopolies arise?

1. Strategic Control over $\left\{ \begin{array}{l} \text{Scarc resources} \\ \text{Input} \\ \text{Technology} \end{array} \right\}$ by a single firm.
2. Through $\left\{ \begin{array}{l} \text{developing} \\ \text{acquiring control} \end{array} \right\}$ over a unique & Oth. comp. → Difficult to copy.
 Product
3. Govt. granting exclusive rights to produce & sell C&S.
4. Patent & Copyright given by govt. → To protect intellectual prop.
 encourage innovations
5. Biz combinations or cartels
 Ex: - Jio, Airtel, Vi
6. Extremely large start-up cost → To entry the market
7. Natural monopoly $\left\{ \begin{array}{l} \text{arises} \\ \text{When there are} \\ \text{very large economies} \\ \text{of scale} \end{array} \right\}$ Means A single firm can produce the industry's whole output at a lower unit cost so that any other firm's entry would be unprofitable.
 Competition is not viable eg. PW
8. Enormous Goodwill enjoyed by firm → For long period
9. Stringent legal & regulatory requirements → Discourage entry of new firms
10. Firm use various anti competition practices → ex: - Predatory tactics

★ Monopolist's Revenue Curves



★ Relationship Between AR & MR of a monopoly firm

(i) AR + MR → Negatively by sloped [Downward Sloping] Curves.

(ii) Slope of MR Curve = 2 × Slope of AR Curve

→ MR curve lies half way between Y Axis and AR curve
 (Mean cut horizontal line into two equal parts)

(iii) $AR \neq 0$ & $MR \leq 0$

★ Monopolies are 2 Types

- Simple → Uniform price from all buyers
- Discriminating → charging diff. prices from different buyers of same goods

Ex: - Dynamic fare charged by Indian Railways in specific trains.

★ Short Run Equilibrium

→ Conditions for equilibrium

- $MC = MR$
- MC Curve should cut MR curve from below

Same as Profit Condition

• Monopolised Market can incur

- Supernormal profit ✓
- Normal profit ✓
- Losses ✓

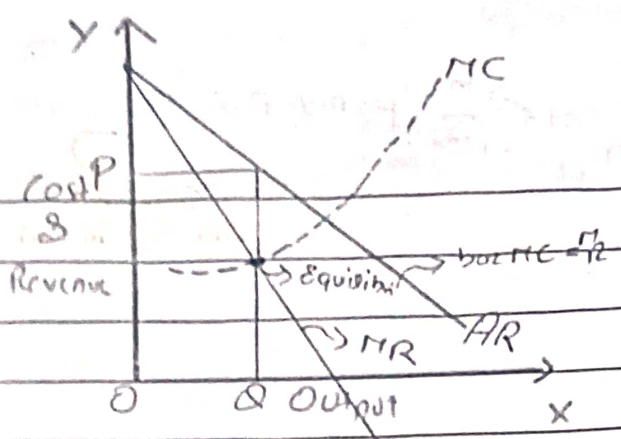


Fig: Equilibrium of a monopolist (Short Run)

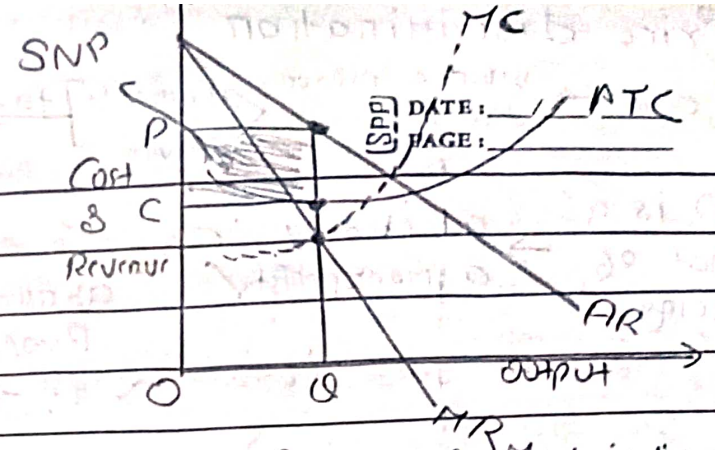


Fig: Equilibrium & Maximisation of Profit (Supernormal profit)

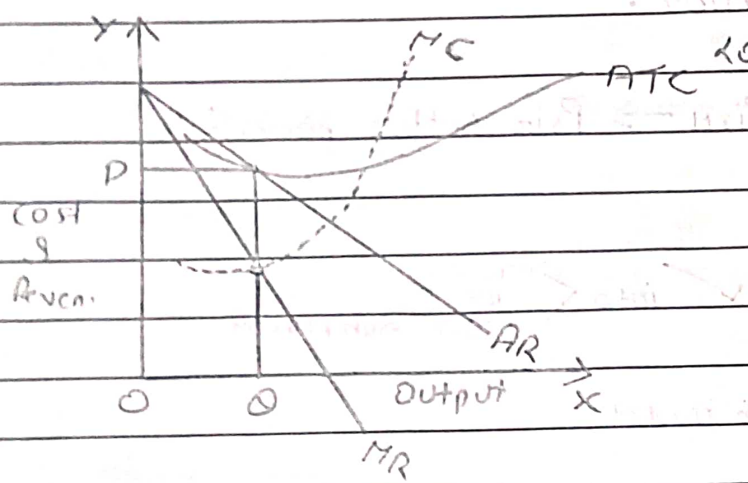


Fig: Equilibrium & Normal profit.

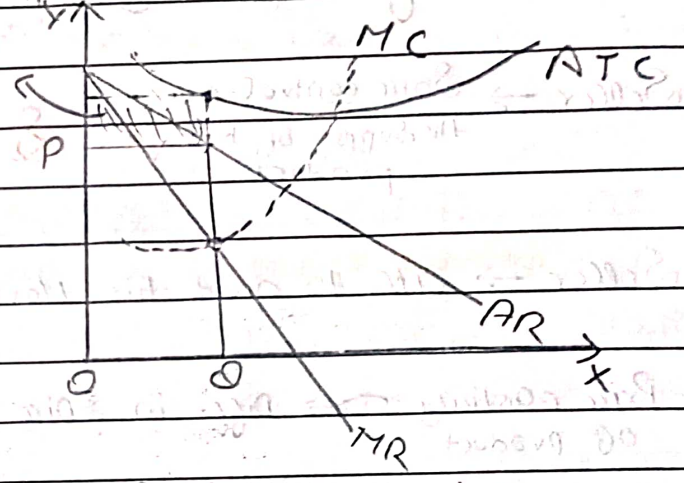


Fig: Equilibrium & Loss in SR

AVC covers \rightarrow Continue
 AVC cover $\times \rightarrow$ Shut down
 Some \times

Graph start as SO (Supernormal profit)

★ Long Run Equilibrium \rightarrow He can chose any point on the LAC where his profit are maximum. Monopolist need \times produce at its optimum level.
 Monopoly \rightarrow Monopolist किती सा He can produce at a sub-optimum level scale also. ✓
 हे लेखक इसे Profit maximisation होता चाहिए LAC curve के SAC पर जो जो चोखे गिरे प्रोफिट के शकता

- * ये Supernormal profit सा कम कर सकता है
- * Losses $\checkmark \rightarrow$ continue NA होता
- * Pure profit कम करता है \rightarrow Bar entry of outside firm is blocked.

★ Price discrimination

→ PD occurs → When a producer sells a specific commodity or service to diff. buyers at two or more prices

→ PD is a method of pricing adopted by a monopolist to earn abnormal profit.
 eg: Monopolist jaldi se leta hai aur wo dekhata hai Rich banata hai.
 eg: Transport cost associated with diff. in cost.
 DATE: _____ PAGE: _____

Conditions for Price discrimination:

1. Seller → Some control over the supply of his product & Firm → Price setting power ✓
2. Seller → Able to divide his market into two or more sub markets ✓
3. Price elasticity of product → Diff. in diff. sub markets ✓
- Monopolist fixes a high price → For those buyers Demand inelastic ($E_p < 1$) ✓
4. ~~X~~ Market Arbitrage → Means agar - agar market ke beech beech price hai to woh beech market banata hai ✓

IB Assume 2 Markets

Market A Market B

Case 1 $MR_A < MR_B$ → Market B me MR jaldi hai to me sb case me P.D. nahi karunga. Bcz jisse pehle le jayega profit.
 1st se hai so me market A ko Good market B se hai karunga. ✓

Case 2 $MR_A = MR_B$ → Ab mujhe dono me same MR milta hai to ab me sb case me PD karunga aur Higher price sb market me jayega jaha elasticity lower hai means inelastic demand hai. ✓

Good Write

Objectives of Price Discrimination :

- (b) to dispose off surplus stocks
- (c) to enjoy economies of scale
- (d) to capture foreign market
- (e) to secure equity through planning

JRP
★

→ by A.C. Pigou

Degrees of Price Discrimination

→ **First Degree Price Discrimination** → Monopolist separates market into each individual consumer + change their price according to their ability to pay ✓
 extract the entire consumer surplus

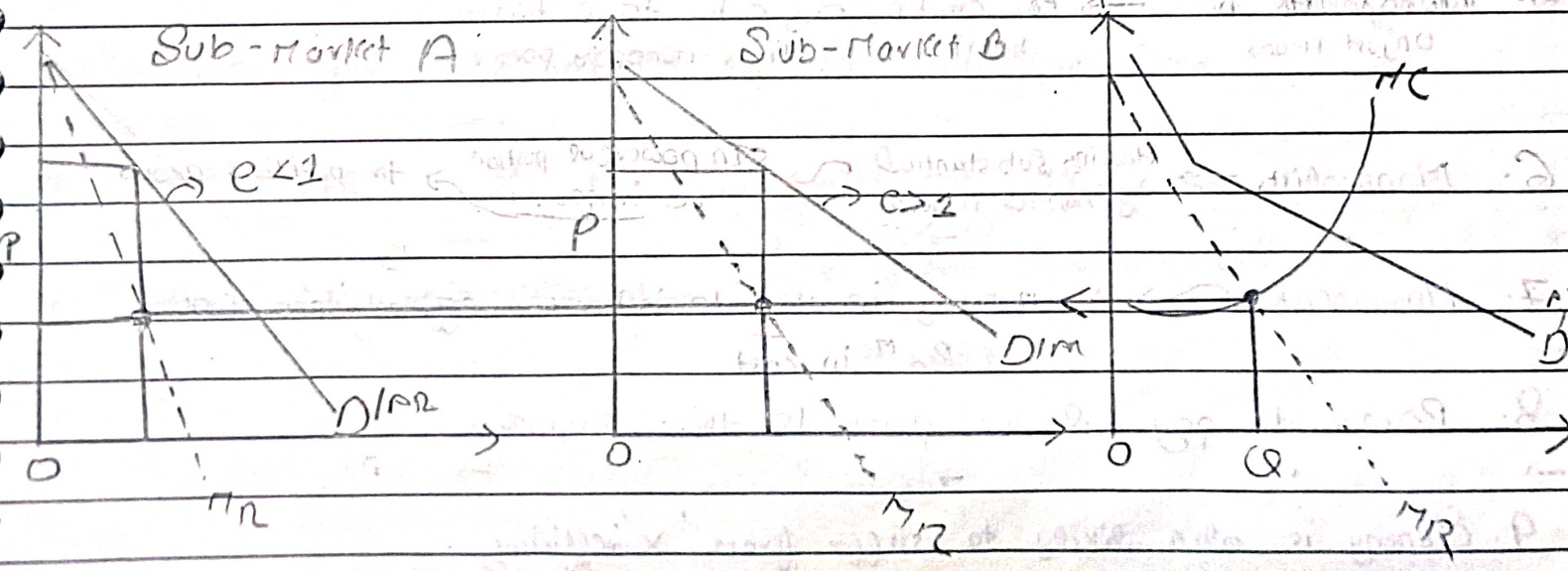
Means selling at different prices to individual consumers in the same market.

→ **Second Degree Price Discrimination** → Diff. Price charged → diff. q^n sold
 Monopolist will take away only a part of CS.

Two possibilities →
 1. Diff. consumer pay diff. price (eg: Family pack of soap) → If they buy larger q^n available at lower unit price.
 2. Each consumer pay diff. price for consecutive purchase (consumption exceeds a particular limit)

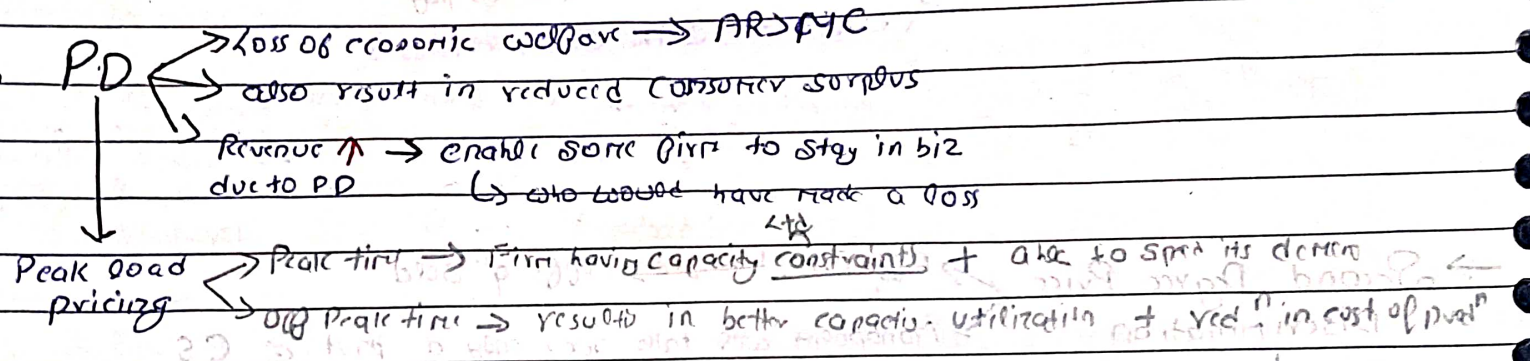
→ **Third Degree Price Discrimination** → Location / Customer segment
 Monopolist divides consumer into sub-market → charge diff. price in diff. sub-market

★ Equilibrium under PD → 3rd Degree PD ✓



→ To reach the equilibrium position, the Monopolist has to make 3 Decisions:

1. How much total output should be produced?
↳ Monopolist will compare the MC & MR of the output in Total Market / Aggregate Market
2. How the total output should be distributed between the two sub-markets?
↳ First MR + MC → equal
↳ of 2 sub-markets
3. What prices he should charge in the two sub-markets?



Economic effects of Monopoly

1. Monopoly is often criticized → it reduce aggregate economic welfare
2. Monopolists charge
 - ↳ Substantially higher prices
 - ↳ produce lower level of output
3. Monopolists earn → Economic profit in LR → unjustifiable ✓
4. Monopoly restricts consumer
 - ↳ sovereignty
 - ↳ opportunities
 - ↳ to choose what they desire.
5. Monopolists use unjust means → For creating barriers → entry to sustain their monopoly power
6. Monopolists → Having substantial financial resources → in powerful position to influence the political process
7. Monopolists → X necessary incentive to introduce efficient innovations
Redⁿ in cost
8. Power to pay lower prices to their supplier
9. Economy is also likely to suffer from 'X' inefficiency.

3.2 Imperfect Competition - Monopolistic Competition

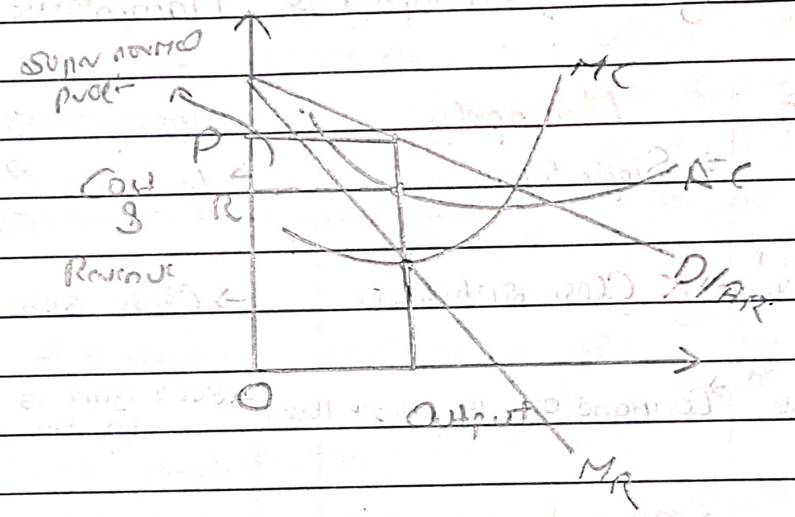
Price Maker ✓
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→ Features Excess capacity always exists

- (i) Large no of Seller
- (ii) Product Differentiation → Product of diff. Sellers → Differentiated on the basis of brands → Close substitutes → Demand relative elastic
- (iii) Freedom of entry & exist MC Theory architect → Chamberlin
- (iv) Non-price Competition Distinction bet. Selling cost & Production cost

★ Price-Output Determination Under Monopolistic Competition: Equilibrium of a firm

→ Each firm Price Makers + less differentiated the product → more elastic



Conditions for the Equilibrium of an Individual firm:

1. $MC = MR$
2. MC curve must cut MR curve from below

• Monopolistic competitive firm incur
 → Super normal profit ✓
 → Normal profit ✓
 → losses ✓

★ Long Run Equilibrium :- → Earn only normal profit
 (Same Reason is earn SNP & losses as PCM)

★ Individual firm Equilibrium in LR → Will be operating at levels at which it does X
 Scale of production → Monopolistic Firms → optimum prodⁿ means min cost
 If any attempt to produce more to secure the advantage of LR/Min cost prodⁿ → Irrational
 → Price > Cost → Profit ↓

MC =
 ★ Monopolistically competitive firm → Equilibrium in LR is at a position → Excess capacity
 Producing more than its full capacity level
 → Means producing at below portion of LR curve

★ Comparison of PCM, Monopoly & Monopolistic Competition

Perfect Competition	Monopoly	Monopolistic Competition
→ Large no. of buyers & firms	→ Single seller	→ Large no. of buyers & firms
→ Homogeneous product	→ X Close substitutes	→ Close substitutes
→ Insignificant market share	→ Command over the whole market	→ Each firm is small relative to the market
→ Perfect competition	→ Absence of competition	→ Imperfect competition
→ Absence of monopoly	→ High degree of monopoly power	→ Some degree of monopoly power
→ Free entry & exit	→ Strong barriers to entry	→ Free entry & exit
→ Price taker	→ Price maker	→ Some control over price
→ $MC = P/AR$	→ $P/AR > MC$	→ $P/AR > MC$
→ Price < Other market form	→ High equilibrium price	→ Price is high compared to perfect competition

→ Demand curve → Infinite elastic	→ Downward sloping & highly inelastic → Demand curve	→ Downward sloping & more elastic demand curve
→ MR + AR → Same curve	→ MR is twice steep when compared to AR	→ =
→ TR → Straight line positively sloping through the origin	→ TR inverted U Shaped	→ =
→ X PD	→ ✓ PD	→ Depends on the extent of monopoly power the firm
→ X SP in LR	→ SP in Both → LR ✓ / SR ✓	→ X SP in LR
→ X Selling costs	→ Generally low selling costs	→ High selling cost → reason advertisement
→ Price being given, decide only q^n of output	→ decides both → Price & q^n of output	→ =
→ Product is produced at the Min. Average cost	→ Produced at the declining portion of AC	→ =
→ Equilibrium q^n is highest + Produced at least cost	→ Equilibrium $q^n <$ other market forms	→ Equilibrium $q^n >$ optimal → excess capacity
→ X Consumer exploitation	→ Consumer exploited → Change ↑ Price	→ Consumer influenced through → Price + Non-Price competition
→ Efficient allocation of resource	→ Inefficient allocation of resource	→ =
→ Wastage of resource	→ Wastage of resource	→ Huge wastage of resource by advertisement

★ **Oligopoly** → Imperfect Competition
 Limited No. of Seller [2-10] + Product → Homogeneous ✓
 Differentiated ✓
 Strategic Interdependence → means Big Firms
 DATE: ___/___/___
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→ **Types of Oligopoly:**

• **Pure oligopoly or Perfect oligopoly** → Product is homogeneous in nature
 tends to process raw materials → intermediate goods → produce
 ex: petroleum, steel & Aluminium
 eg. Iron and steel industry

• **Differentiated or Imperfect oligopoly** → Goods sold is based on product differentiation
 ex: Talcum powder

• **Open oligopoly** → Free entry & **Closed oligopoly** → Entry is restricted

• **Collusive oligopoly** → When few firms of the oligopoly market comes to common understanding or act in collusion with each other either
 Fixing Prices, Output, both
 Means that few firm oligopoly at time in market

• **Competitive oligopoly** → Absence of such an understanding among the firms + compete with each other

• **Partial oligopoly** → Industry dominated by one large firm + dominating firm → Price leader ✓
 Leader of the group

• **Full oligopoly** → Market will be conspirator by absence of price leadership.

• **Syndicated oligopoly** → Firm sell their products through a centralized syndicate.
 Common interest wali firm oligo. ki 2 or 2 or group hote hai
 hai aur 2 or milke 2 or leader chunte hai & vo jo hote hai, uske baad uske

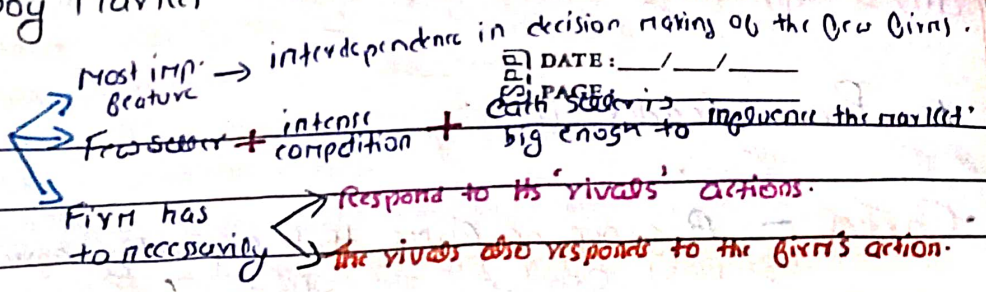
• **Organized Oligopoly** → Firm organize themselves → central association for fixing price, output, quantity etc.

• **Cartel** :- A group of firm eg. **OPEC**

Organization of petroleum exporting countries act as monopoly

Characteristics of Oligopoly Market -

→ Strategic Interdependence



Oligopoly में कुछ कुछ firms
 एक-दूसरे के कार्यों से बाधित होते हैं।
 एक फर्म को बाकी के market में काम करने में बाधा पड़ती है।

→ Importance of Advertising & Selling Cost - Great importance

→ Firms employ various aggressive + defensive marketing weapons → To gain greater share in the market / maintain their share

* Note → That firms in such type of market avoid price cutting

→ Group Behaviour

Price and Output Decisions in an oligopolistic Market

→ Oligopolistic firm → ~~X~~ have sure + Determinate Demand curve
 Demand curve slightly as the rival's price in relation to the price made by it.

∴ Imp. Oligopoly models are:

(i) It is assumed → Oligopolistic firms ignore their interdependence & make their decisions independently → DC definite
 by some economists

(ii) Some economist assume → Oligopolist is able to predict the reaction pattern of his competitors

• Cournot Model

On the basis of his prediction → He makes decisions relating to price & q.

Cournot model में control jointment होता है Output का हर firm Output का हर firm के साथ ही

• Stackelberg's Model → SM model में leader के Output Decision को ही follower को देखना पड़ता है वो बाद में Output Decision करता है।

• Bertrand Model

→ In this firm price is the main thing and quantity is secondary.

(iii) 3rd approach → Oligopolists enter into agreement + try to pursue their common interest

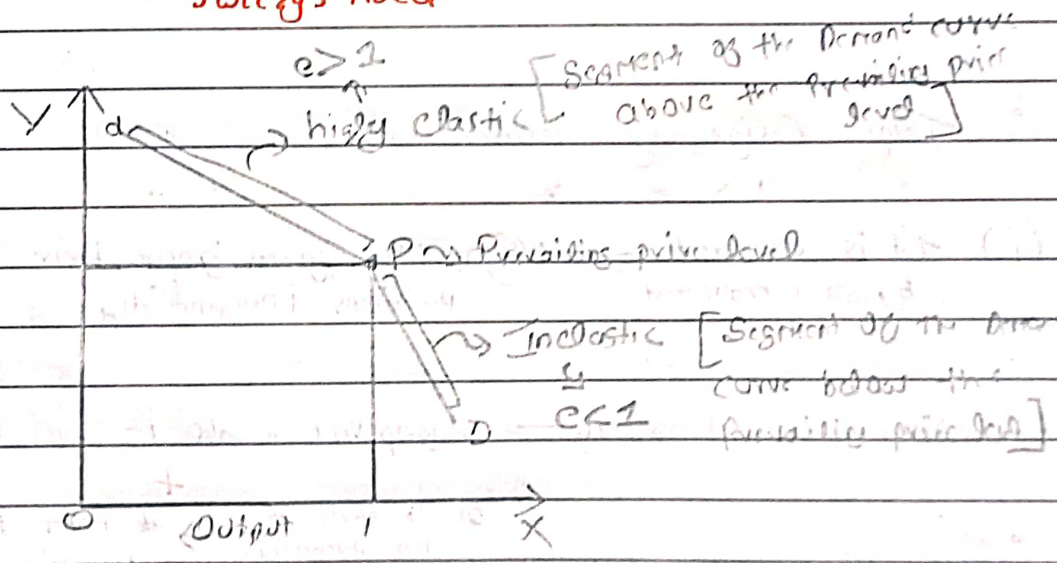
★ Price Leadership

• **Cartel** → A group of firms that explicitly agree → Coordinate their activities
 → Most cartel have only → Subject of Producers
 → Price leadership by dominant firm → One strategy adopt → Give a lot of philosophy
 → Dominant Firm → accept the price of fringe firms
 → Set prices to max its profit
 → Talking into → Fringe Firm behaviour

→ Price leadership by low cost firm → Price leader set the price in such a manner
 → It allows some profits to the followers also

→ Barometric price leadership → Firm → old experienced largest or most repeated → Act as a leader
 → Leader makes Δ in price → Which are best from the view point of all firms in industry

★ Kinked Demand Curve → Given by → An American Economist Paul A. Sweezy
 → Sweezy's Model



★ Rigid or sticky prices explained → by kinked demand curve theory

★ Explain also → why oligopolistic price might change only infrequently

Good Write

- When oligopolist lower the price below the prevailing price
 - ↳ Its competitors will follow
 - ↳ Little Increase in sales.
- When oligopolist Increase the price of product
 - ↳ Competitors will not follow
 - ↳ Massive Demand in sales
- Response to a price ↑ is less than the response to a price ↓

→ Other Imp. Market Forms

* Sony ~ Buyer market

1) Duopoly → Subject of oligopoly
Only 2 Firms in a market

2) Monopsony → Single buyer in market
Applicable to factor market

3) Oligopsony → Small no. of large buyers
Applicable to factor market

4) Bilateral Monopoly → 1 Buyer + 1 Seller
Combination of Monopoly + Monopsony

Imp MCQ →

Q Monopolists are collectively inefficient because → They restrict the output to keep the price higher than under PC
+ $BR > MC$

Q PC → Making min. losses (In short run) ⇒ $MR > MC$

Q Product Differentiation is most imp. feature ⇒ Monopolistic competition

Q Unique supply curve in Monopoly is Not due to ⇒ $P > MC$

Q In long run, Normal profit are included in → LAC which curve

Q Dilemma faced by a Monopolistic is setting Price or Output → either

Q Product under Pure Monopoly → Homogeneous

Q LR Period → Normal Price → competitive firm will be → Equal AC & MC of Prod

Q Normal Profit included in → Implicit cost