CHAP#4 MARKET

Market refers to Any (M)edium, (A)rrangement, (S)ystem, (T)echnique or Network which brings close contact between buyers & sellers.

Perfect competition — Unreal

Features

Real

(i) Large No. of Sellers
(ii) Large No. of Buyers
(iii) Homogeneous product (exactly same)
(iv) Free entry & exit
(v) Single price

Pure competition

Unreal

(i) Perfect
- Knowledge
- mobility

(ii) NO
- Transport cost
- govt intervention (Laissez-faire-policy)

(iii) Horizontal Demand Curve (AR curve)

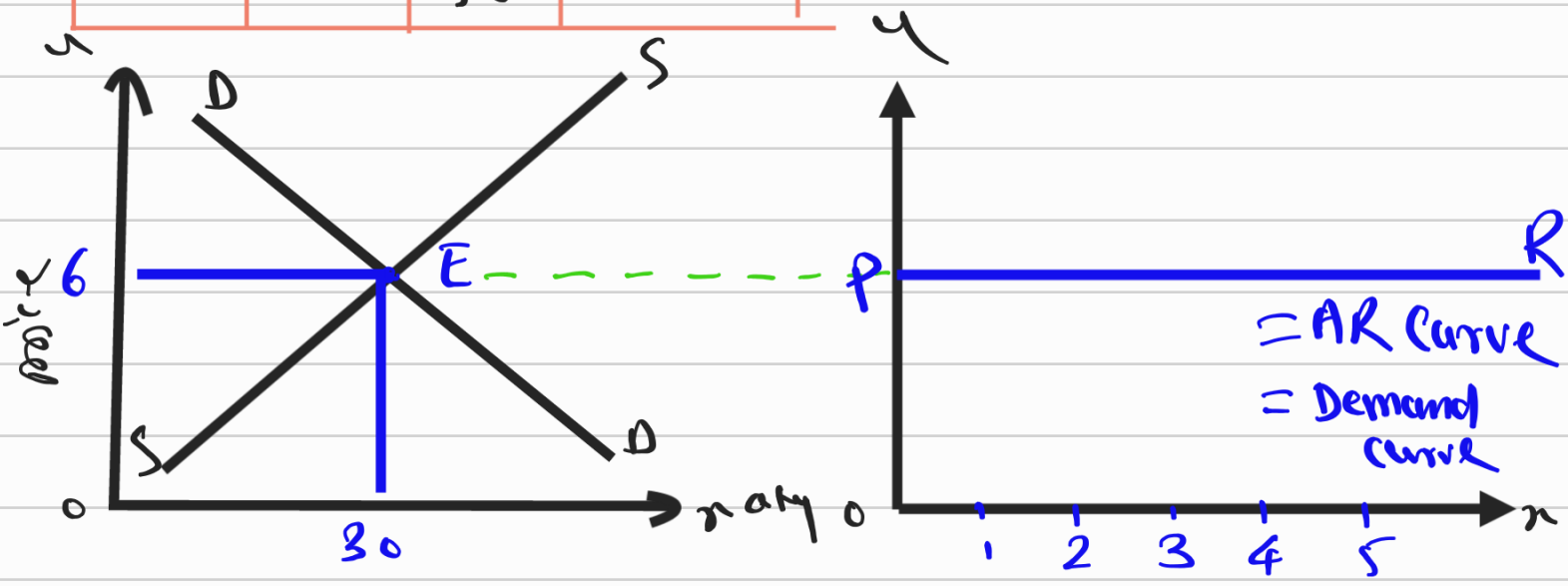
(iv) Price taker

Price Determination under perfect competition

- Under perfect competition price is determined by MARKET FORCES i.e Demand & supply

- Industry / Market = Price maker
  Individual sellers / Firm = Price taker.

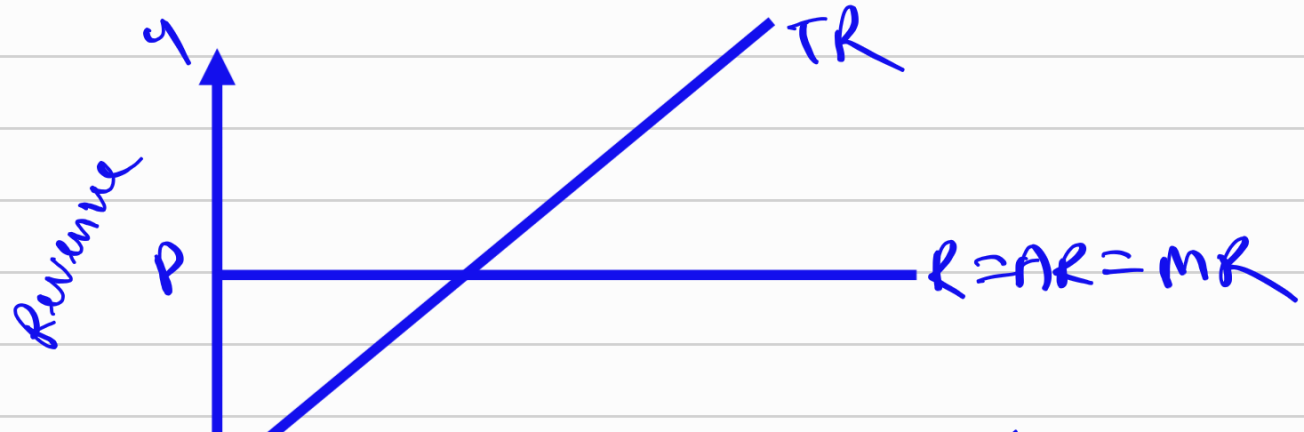
Price	DD	SS	
2	50	10	price ↑
4	40	20	
6	30 =	30	Price = constant
8	20	40	price ↓
10	10	50	

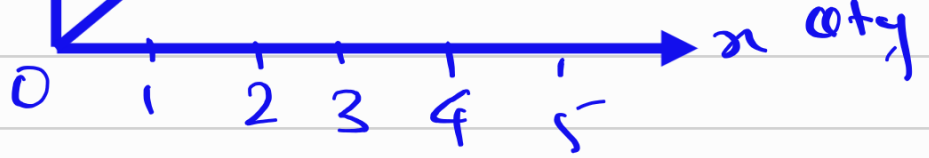


Behaviour of AR, MR & TR under perfect competition

Price (AR) = MR

Units	Price	TR	AR	MR
1	10	10	10	10
2	10	20	10	10
3	10	30	10	10
4	10	40	10	10
5	10	50	10	10





Maximum profit Point

AKA Maximum production point & Equilibrium point.

Conditions :-

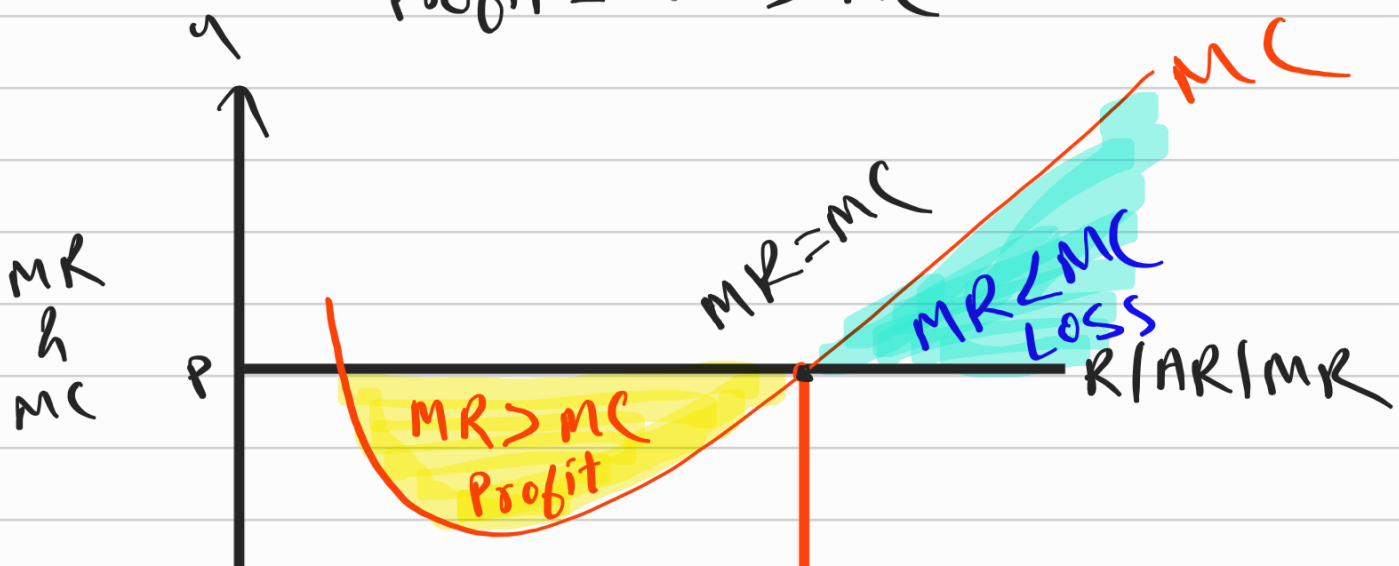
(i) MR = MC

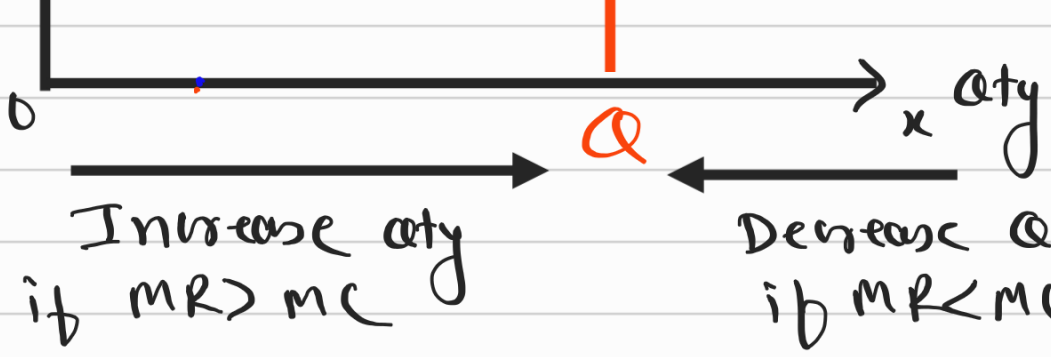
(ii) MC intersect MR from below
or
At intersection point MC is increasing / upward sloping / positively sloped

Unit	TC	MC
10	1000	—
11	1200	200

Unit	TR	MR
10	2000	—
11	2300	300

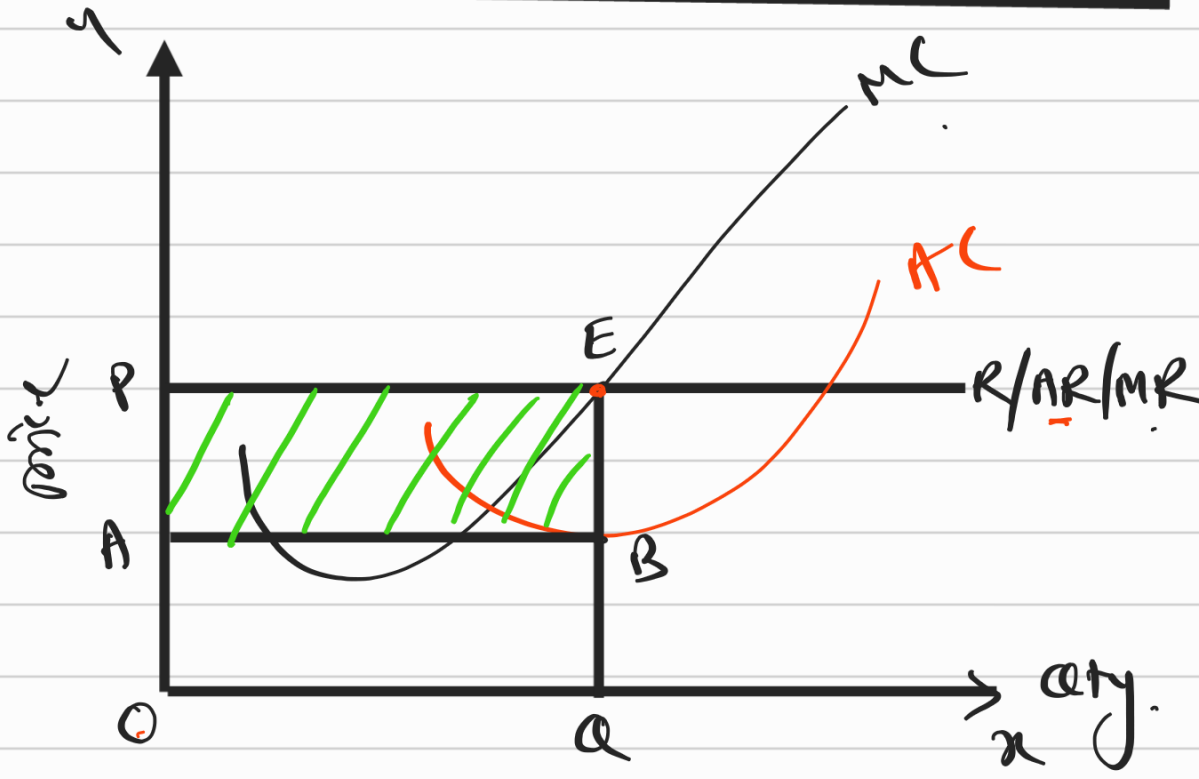
Profit = MR > MC





Short Run Equilibrium under perfect compt^n

Steps
1. AR ✓
2. MR ✓
3. MC ✓
4. EQ ✓
5. AC ✓
6. AVC ↓ Loss

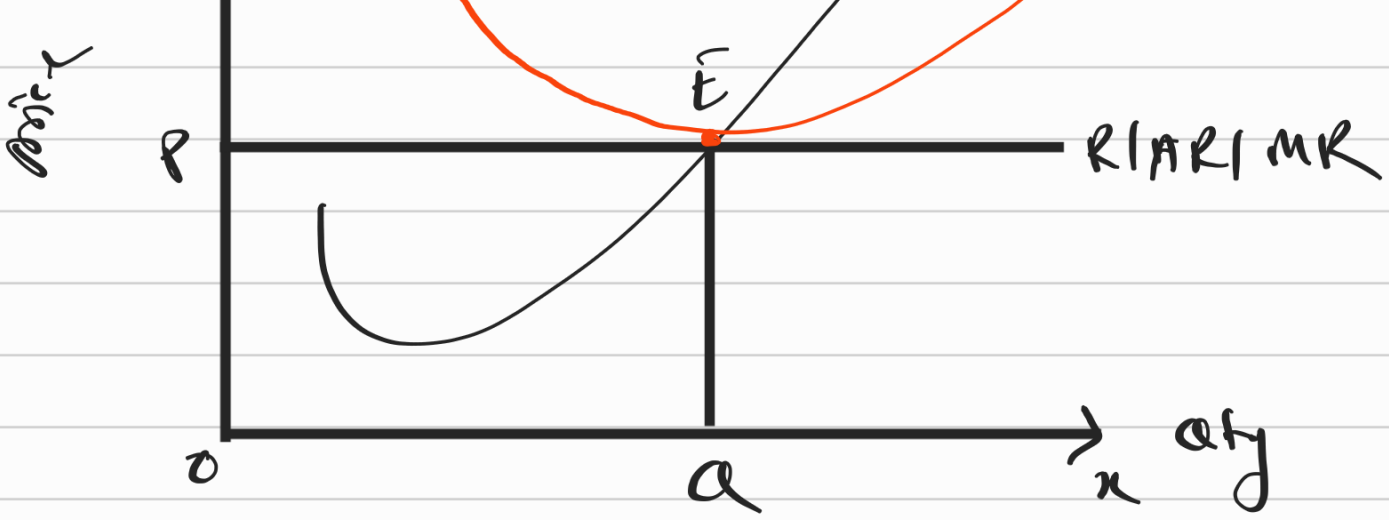


AR (Price) > AC = Super Normal Profit
(OP) (OA)

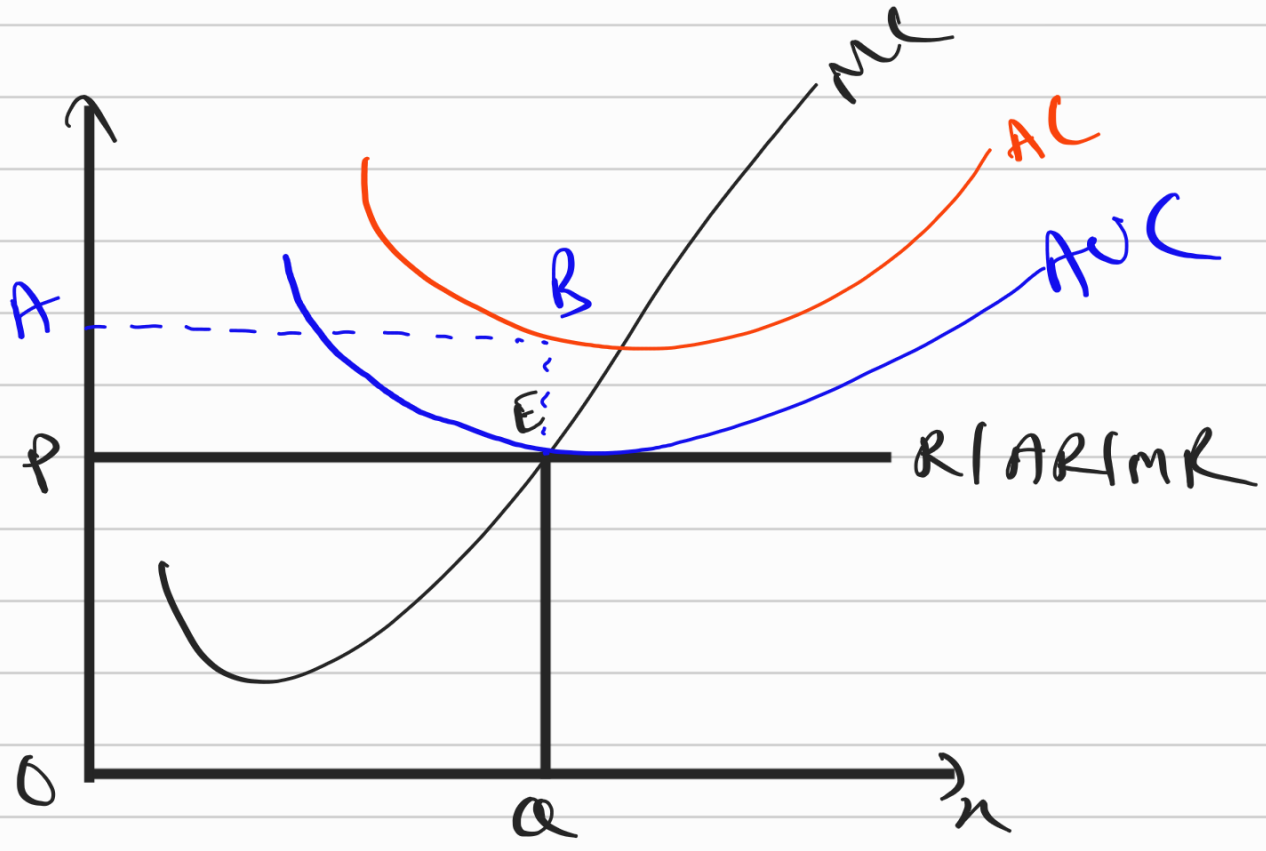
$TR = AR \times Q$
$= OP \times OQ$
$= OPEQ$

$TC = AC \times Q$
$= OA \times OQ$
$= OABQ$

TC = Exp + imp + NP
13000 = 8000 + 2000 + 3000



AR (Price) = AC = Normal Profit
(OP) OP



AR < AC = Loss
OP OA

But if AR ≥ AVC
= Normal Loss.

Loss

Normal

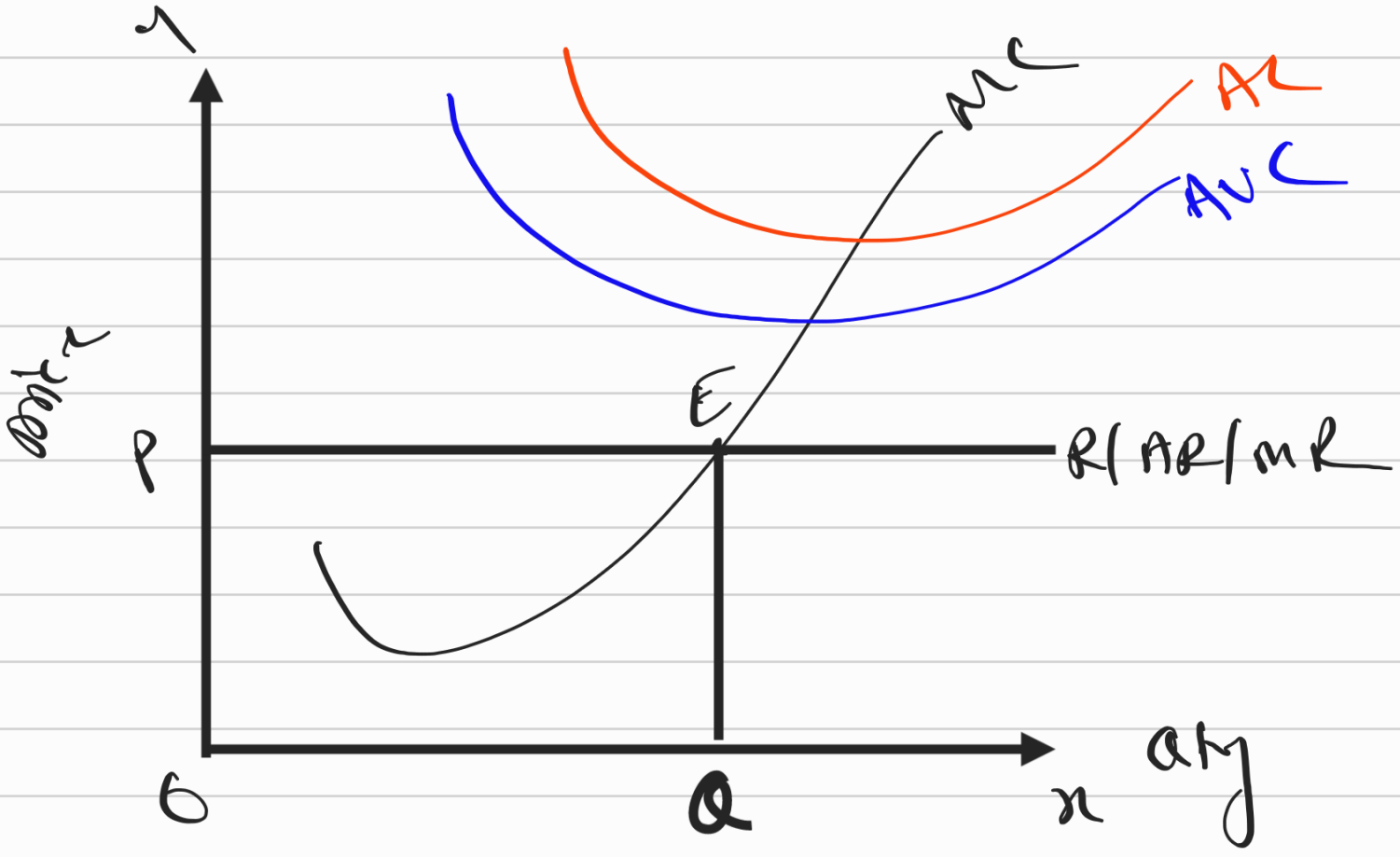
Shut down point
or Abnormal Loss

Continue

Continue Production Stop.

Covered Variable Cost Not covered

AR (Price) $\geq$ AVC Condition Price $<$ AVC



Price $<$ AVC = Shut down Point Loss.

AC = AFC + AVC Price (AR)

40 = 20 + 20 $<$ 50 SNP

50 = 20 + 30 = 50 NP

60 = 20 + 40 $>$ 50 Loss NP

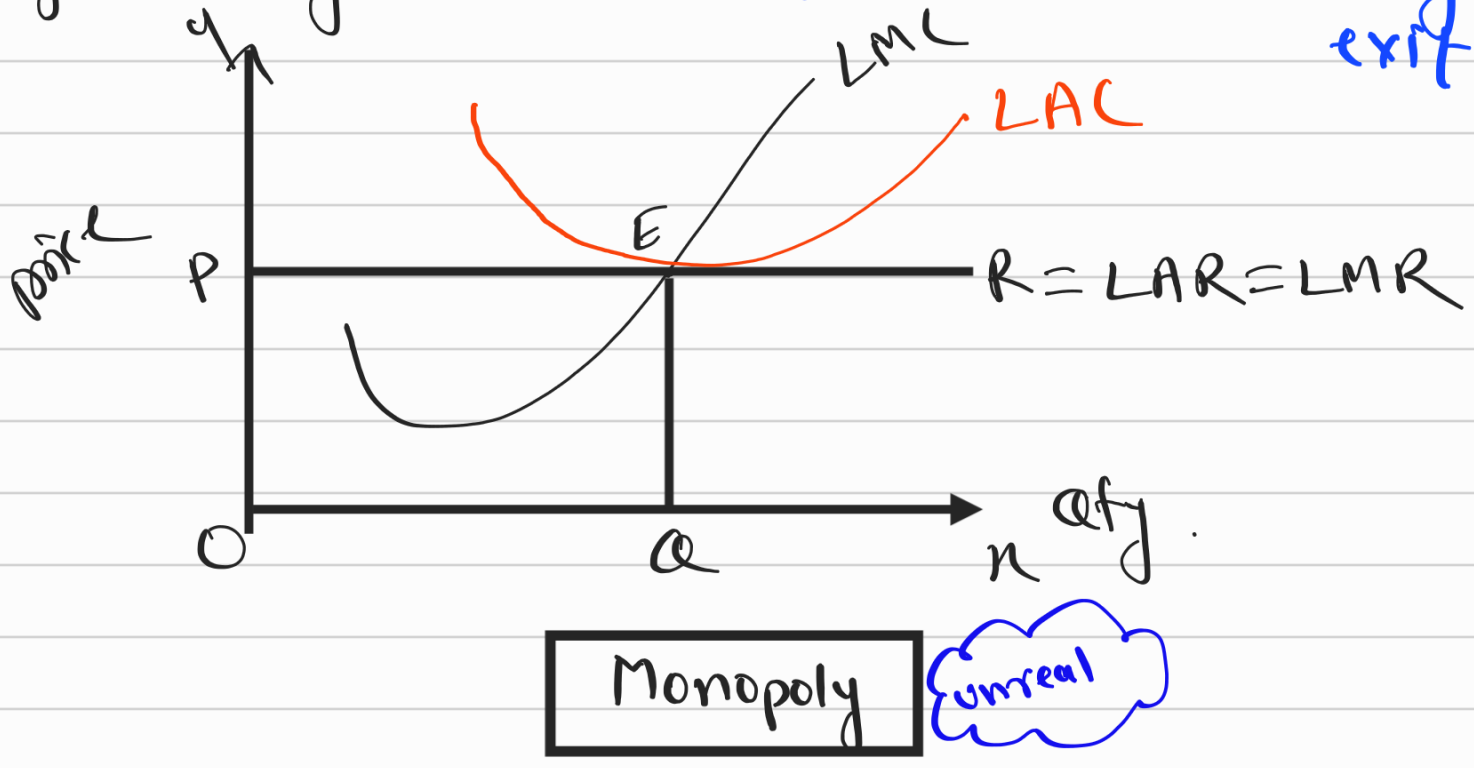
(AR > AVC)

70 = 20 + 50 > 50 Loss, NL AR = AVC

71 = 20 + 51 > 50 Loss, SDPL AR < AVC

LONG RUN EQUILIBRIUM UNDER PERFECT COMPETITION

All firms under perf compt^n, during Long Run gets only Normal profit due to Free entry & exit



Monopoly (unreal)

Features :-

(i) Single seller
(ii) Large No. of Buyers
(iii) No close substitute for product.
(iv) Entry Restrictions
(v) Price Maker
(vi) Price Discrimination
(vii) Price & output can control both but not simultaneously
(viii) Downward sloping Demand curve

(AR curve)

(ix) Firm & industry - both same.

Types of Monopoly

Substitutes

Close	Remote	
X	X	= Pure monopoly
X	✓	= Imperfect mon.

Monopoly Due to

- Natural factor or Economies of Scale → Natural
- Artificial Arrangement → Artificial or voluntary
- Legal Support → Legal
- Technological advancement → Technological

Monopoly owned by.

- Private firm → Private
- Govt / public sector → Public or State

Price Discrimination

- (✓) Discriminating
- (X) Non-Discriminating or Simple

Bilateral Monopoly = 1 Seller + 1 Buyer

⇓ ⇓

Monopoly monopsony

Other forms of markets

(i) Monopsony = 1 Buyer

(ii) Oligopsony = Few Buyers

(iii) Duopoly = 2 Sellers

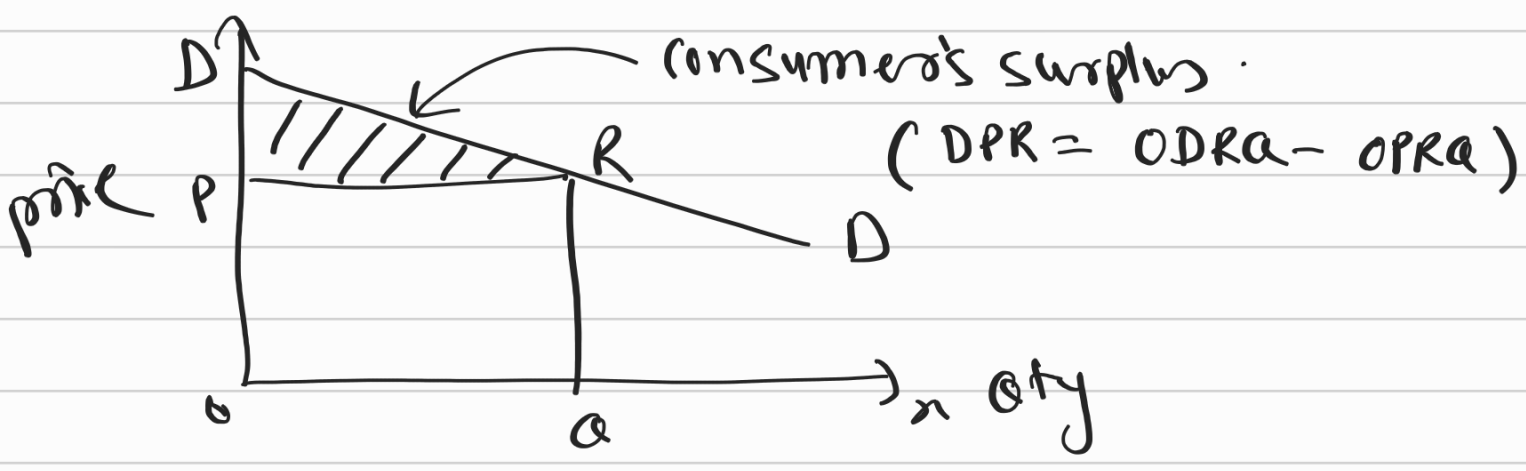
Degrees of Price Discrimination

(i) First Degree

- Price Discrimination on Individual basis
- Different price from different individuals.
- Aim is to fetch entire Consumer's Surplus

⇓

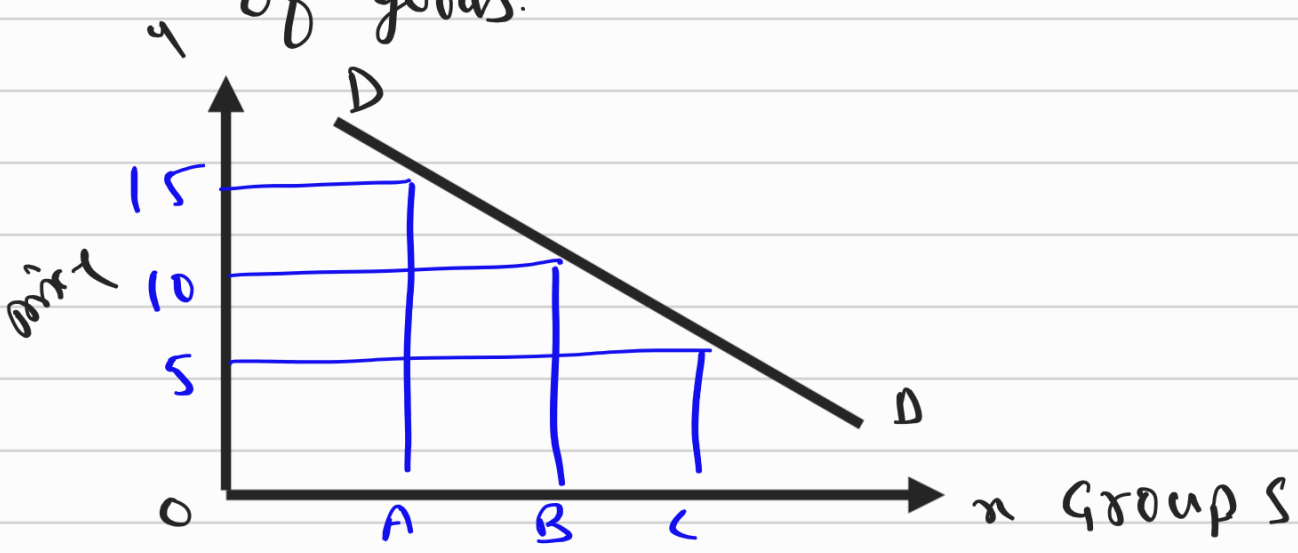
what consumer is willing to pay − what he actually pays.



(DPR = ODRQ − OPRQ)

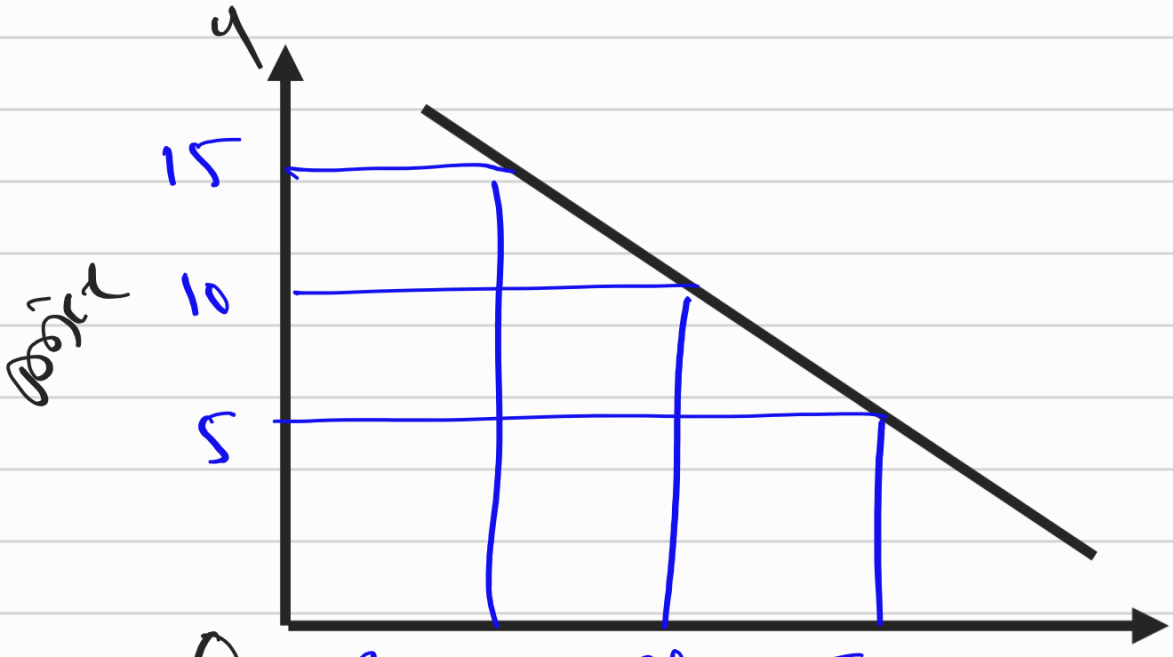
(ii) Second Degree :-

- Price Discrimination on the basis of Group
- Different price from different group of customers or different Lot or Batch of goods.



(iii) Third Degree :-

- Seller divides entire market into different sub-market & discriminates price on Market-basis.
- Different price in different markets



Berlin Rio Tokyo.

Conditions of Price-Discrimination

(i) Elasticities in all markets should be different.

(ii) Buyers should not be able to move from Higher price market to lower price market

(iii) Re-sale of product should not be possible

(iv) Market should be seperable.

Q. Market price = ₹30
elasticities in Market A & B are 2 & 5 respectively. calculate MR in both markets. & comment in which market price should be high.

Sol^n

$$MR = AR\left(\frac{e-1}{e}\right)$$

(A)

$$MR = 30\left(\frac{2-1}{2}\right)$$

$$= 30 \times \frac{1}{2}$$

(B)

$$MR = 30\left(\frac{5-1}{5}\right)$$

$$= 30 \times \frac{4}{5}$$

= 15 = 24

Per unit LOSS due to ↑ in Price

in MARKET A = ₹15 & In Market B = ₹24

∴ Price should be increased in Market A

Per unit Gain, Due to ↓ in price

in (A) ₹15 in (B) ₹24

∴ price ↓ = in Market B

Types of Price Discrimination

(i) Age Discrimination
(ii) Gender —11—
(iii) Quantity —11—
(iv) Quality —11—
(v) Area —11—
(vi) Time —11—
(vii) income —11—
(viii) use —11—
(ix) Height —11—
(x) packaging —11—

Behaviours of AR, MR & TR under Monopoly

AR = Price ≠ MR

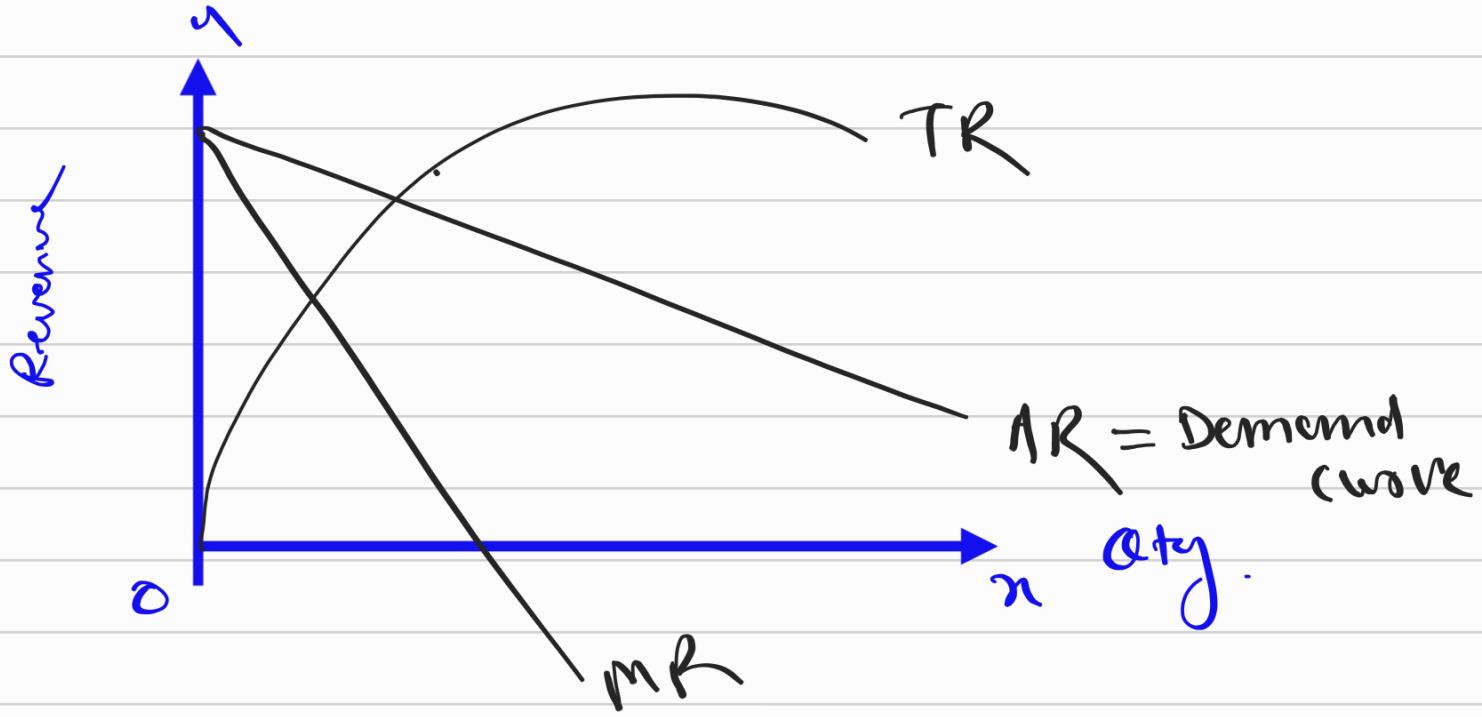
Price (AR) > MR

Units	Price	TR	AR	MR
1	10	10 ↑	10	10
2	9	18	9	8
3	8	24	8	6

(↓ in MR is double

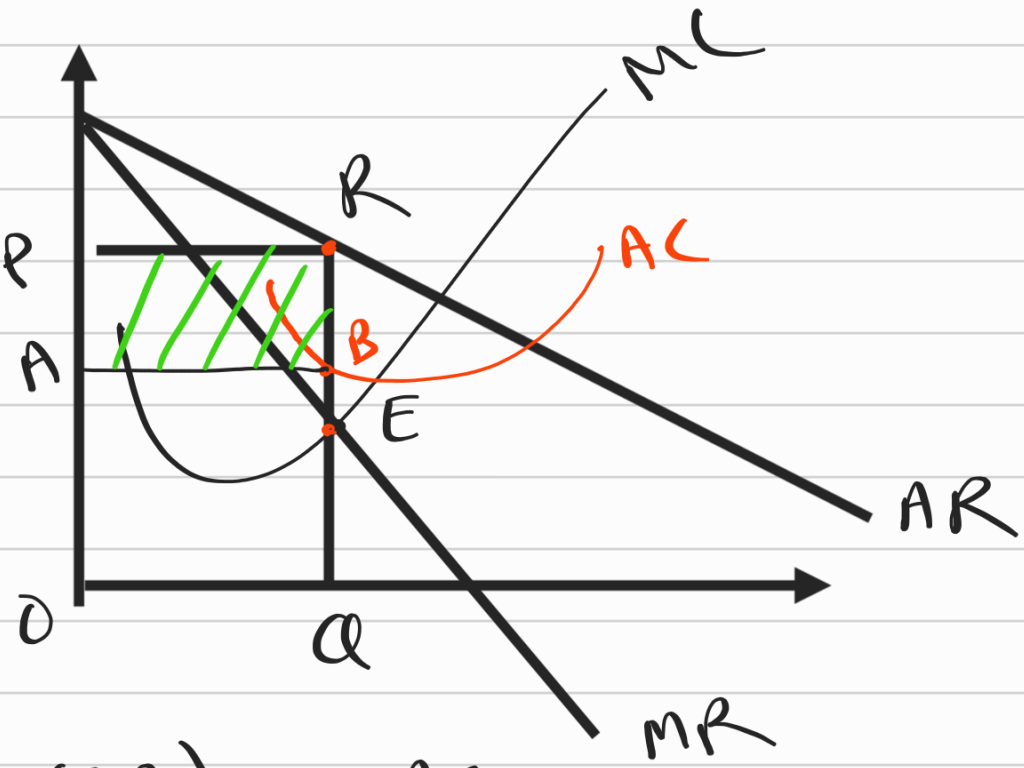
4	7	28	7	4
5	6	30	6 ↓	2 ↓

than ↓ in AR)

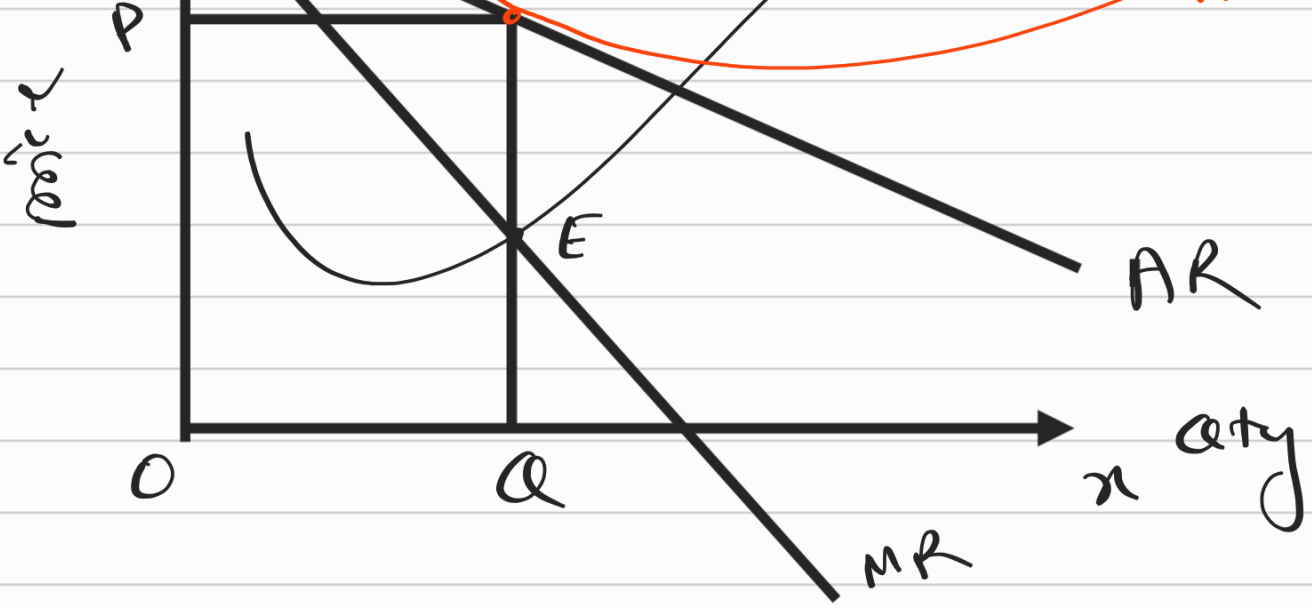


Short Run Equilibrium under Monopoly

AR –
MR –
MC –
EQ –
AC ✓
AVC ↓
Loss

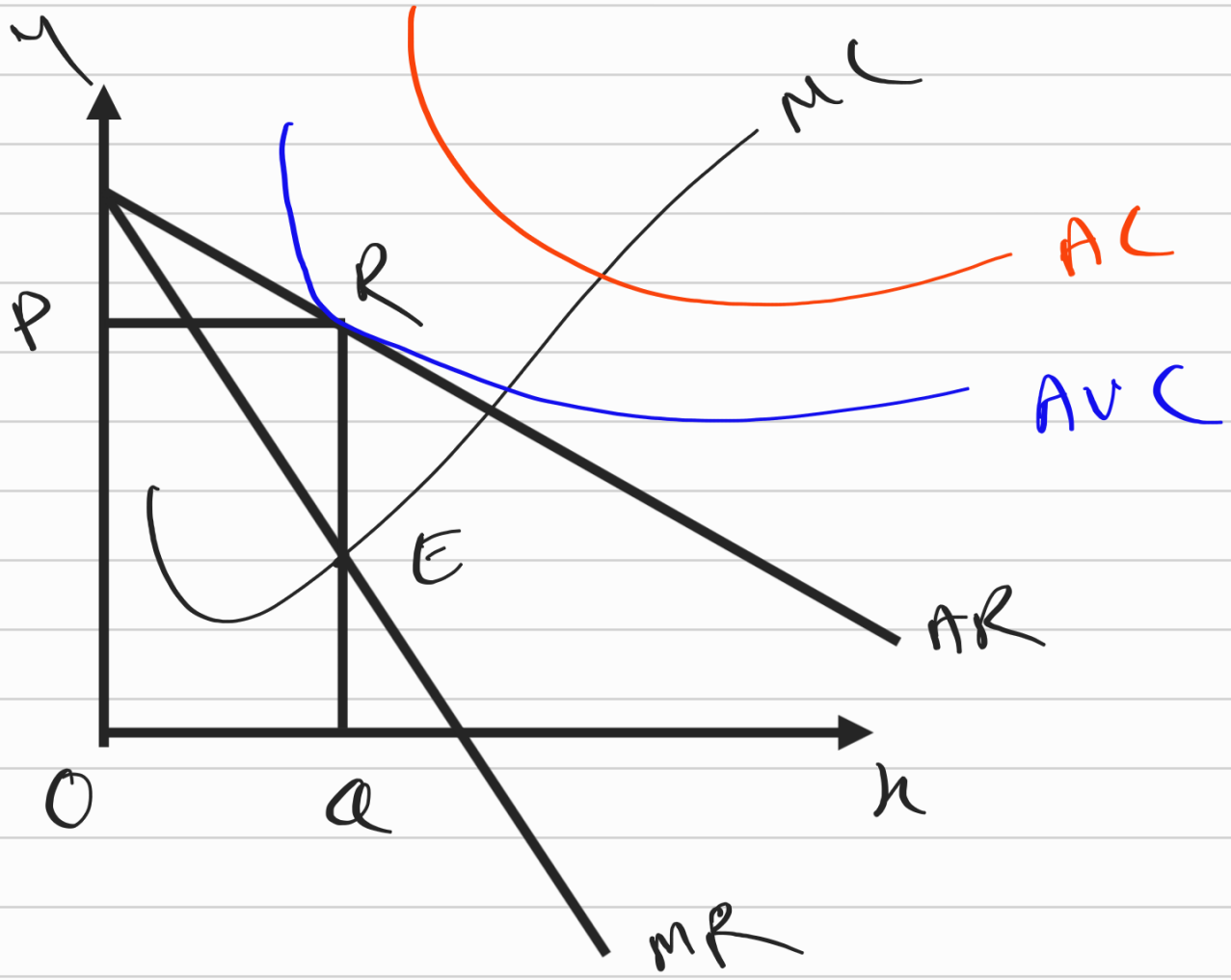


Price(AR) > AC = Super Normal profit
(OP) (OA)



AR = AC = Normal profit

(OP) (OP)



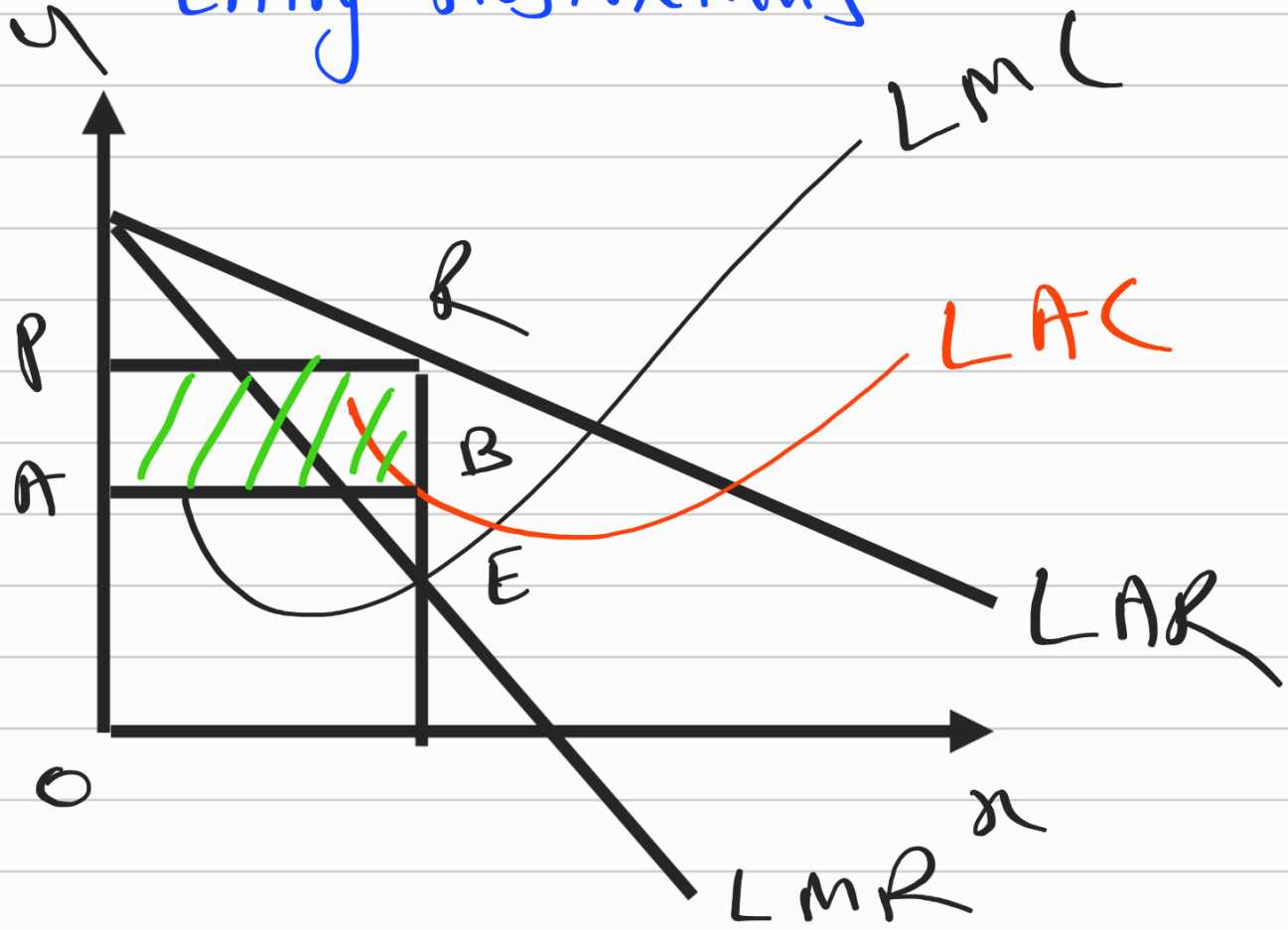
AR < AC = LOSS.

but AR (Price) ≥ AVC = Normal loss

* Shut down point Loss Not possible under Monopoly.

Long Run Equilibrium under monopoly

= Super Normal profit due to Entry Restrictions



Monopolistic competition

Real

- Combination of Perfect competition & Monopoly.
- introduced by "Prof chamberlin"

Features

(i) Fairly large No. of sellers
↓
Less than perfect competition

(ii) Fairly large No. of Buyers

(iii) Differentiated product.
⇓
Similar but not exactly same

(iv) close substitute for product is Available

(v) Free entry & exit.

(vi) Selling cost :- Expenditure incurred to ↑ Sales volume e.g Advertisement, sponsorship, free samples etc.

(vii) Non-price competition :- Competition on the basis of other than price e.g Quality, features, functions, packing etc.

(viii) Downward sloping demand Curve.

(ix) Concept of "Group" :- All firms under this market are called "Group" together instead of industry

(x) Price-Seeker :- Firm find/ Search price from market itself.

Short Run Equilibrium under Monopolistic competition

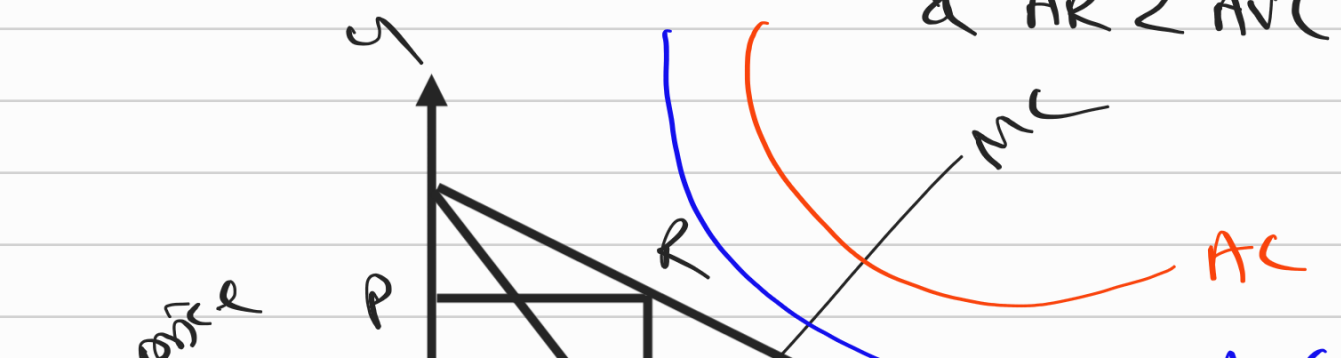
(i) Super Normal profit – AR > AC

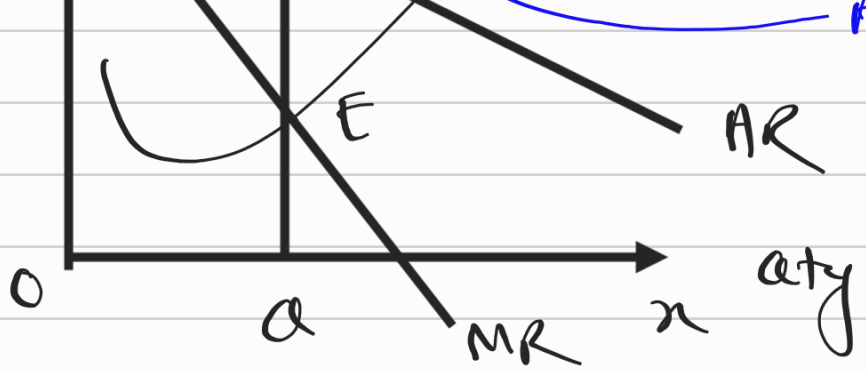
(ii) Normal profit – AR = AC

(iii) Normal Loss = AR < AC but AR ≥ AVC

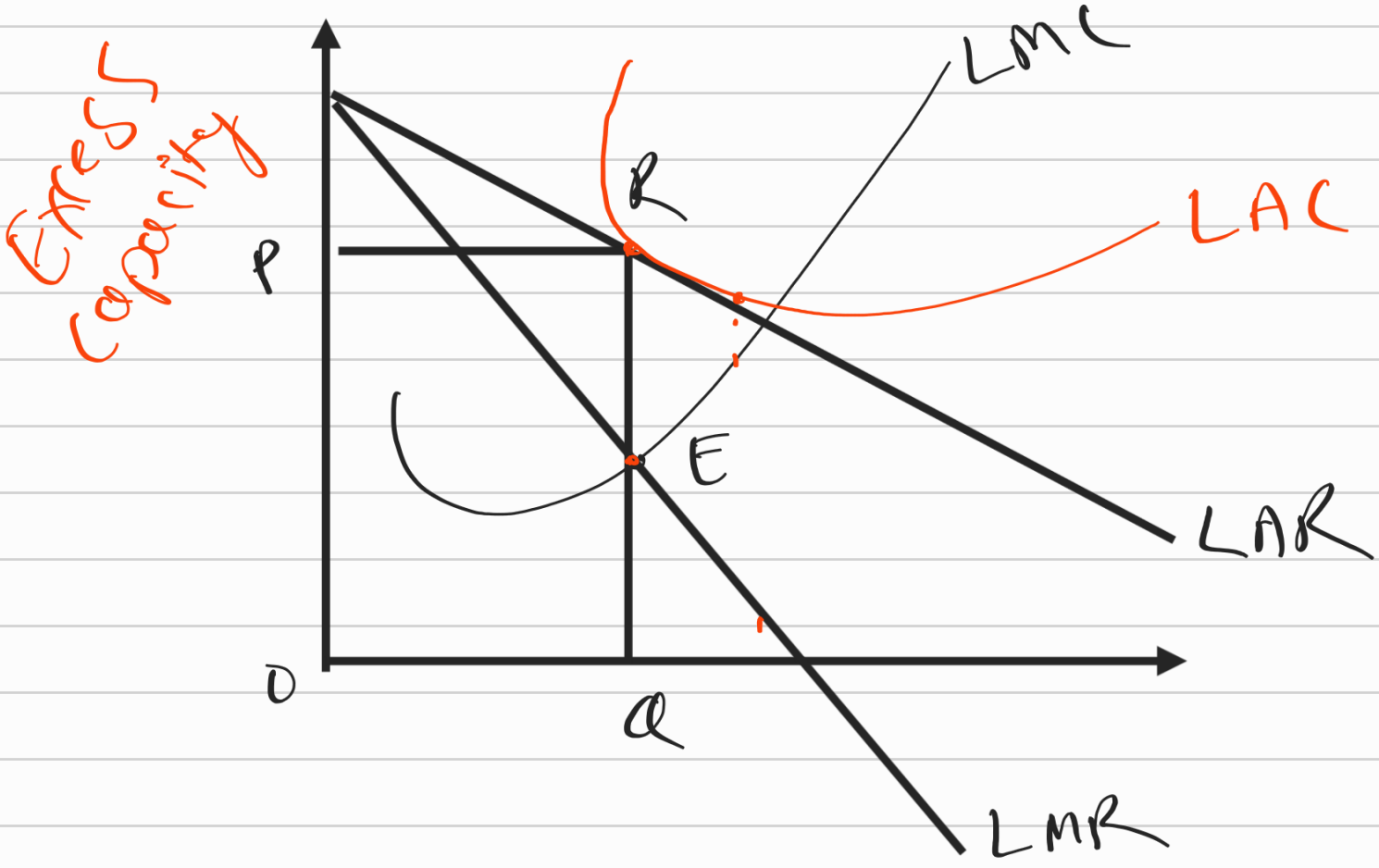
} Same as Monopoly

(iv) Shutdown point Loss = AR < AC & AR < AVC





LONG RUN = Normal profit
Due to "free entry & exit"



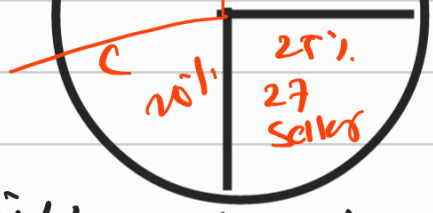
OLIGOPOLY

Real

① Few sellers (2-10)

or

few dominant firm



(ii) Large No. of Buyers

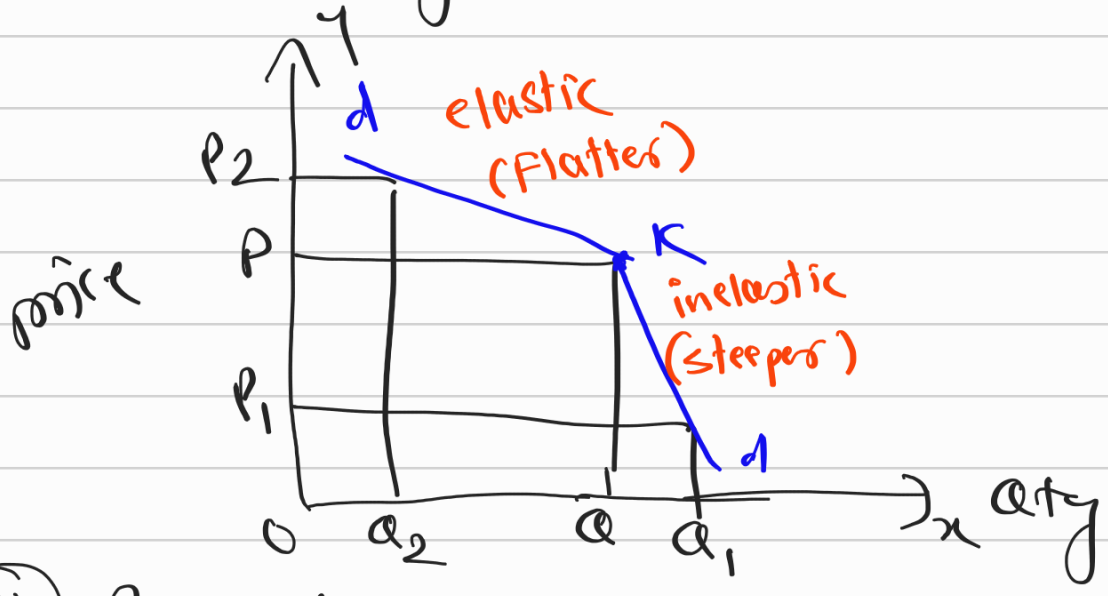
(iii) Product :- Homogeneous / Differentiated

(iv) Entry = Free but difficult or Restricted.

Due to Huge expenditure on Licence fees, Technology, Research & Development, adut etc

(v) Interdependence :- Group behaviour

(vi) Kinked Demand Curve :-
intro by "prof Paul Sweezy"



(vii) Price rigidity :- Seller do not have tendency to change price frequently.

(viii) Advertisement :- play very important role.

Types of Oiligopoly

Product

Homogeneous → Pure

Diff → Imperfect

entry

Free → Open

Restricted → closed

Collusion / Mutual understanding among sellers

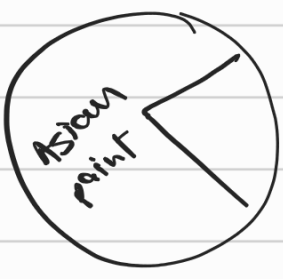
✓ Collusive

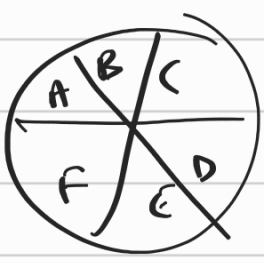
✗ competitive / non-collusive.

Leader

✓ Partial

✗ Full

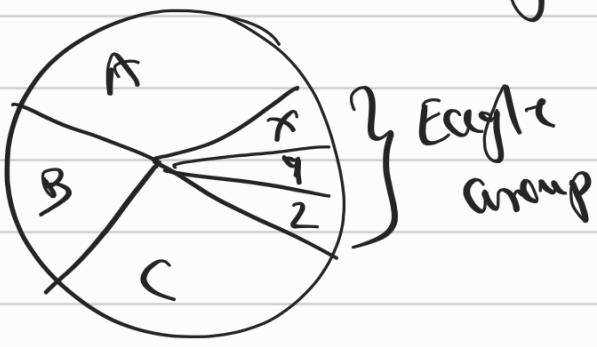




when sellers are organised for

Fixing Price & output
⇓
Organised oligo.
e.g OPEC

Selling through centralised body
⇓
Syndicated oligopoly



Price Determination

Mutually
⇓
Cartel

Price set by one seller & others follow
⇓
Price leadership.

Types of Price-leadership

(i) Agressive price leadership
- one of the seller sets aggressive price & followed by other sellers.

(ii) Low cost price leadership :-
- Lowestcost seller sets price & others follow

(iii) Dominant price leadership :-
- Leader of market sets price

(iv) Barometric price leadership :-

most experienced seller sets the price.

Types of Market

on the basis of Geographical Area

- Local Market → Perishable & Bulky goods
- Regional
- National
- International → High value & Small bulk

on the basis of Settlement of transactions

- Spot market
- Forward / future market

Settlement

- On the spot
- on future date.

on the basis of Rules & regulation

- Regulated
  - eg Banks (RBI), Securities (SEBI), Telecom (TRAI), insurance (IRDA)
- Unregulated
  - coaching class, vegetables etc

on the basis of Time

Conceived by prof Marshall

- Very short Period / Market Period
- Short Period
- Long Period
- very Long Period / Secular Period

$\Delta SS = 0$ or Supply is fixed

ΔSS = less

ΔSS = more

$\Delta SS = \infty$

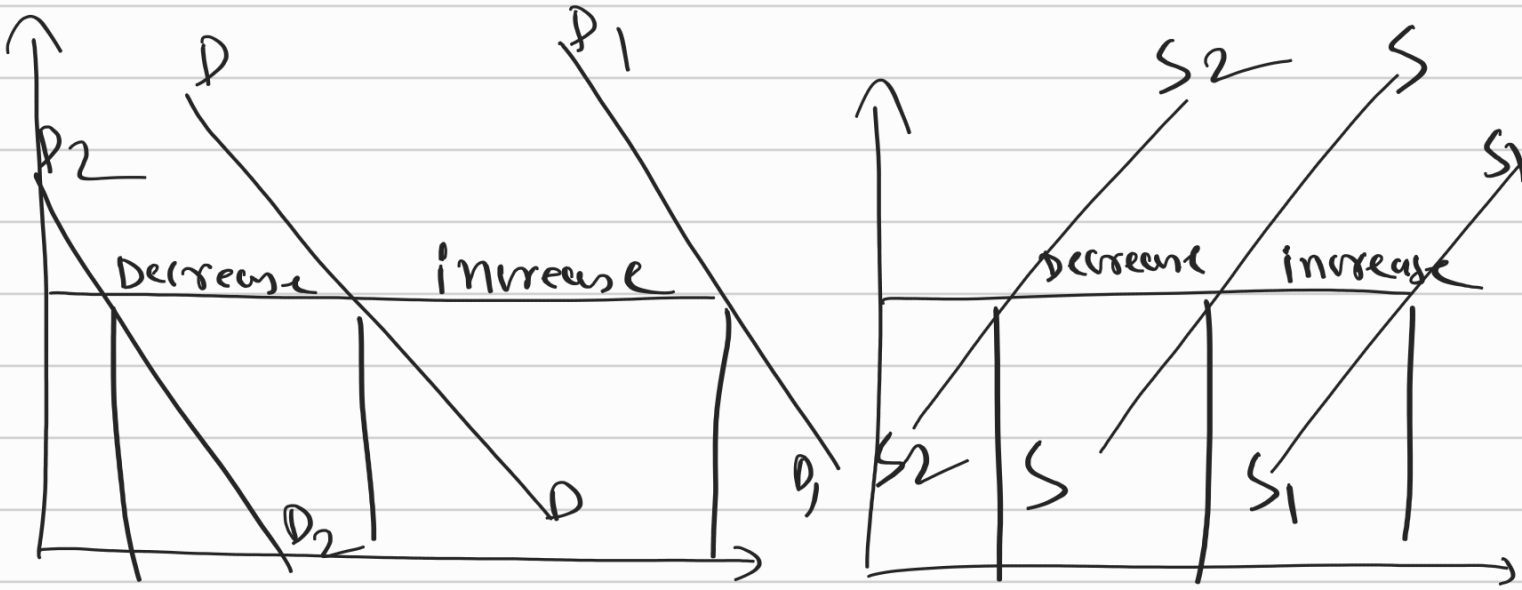
on the basis of competition

- Perfect competition
- monopoly
- Imperfect competition
  - monopolistic competition
  - oligopoly

on the basis of Volume of Trade

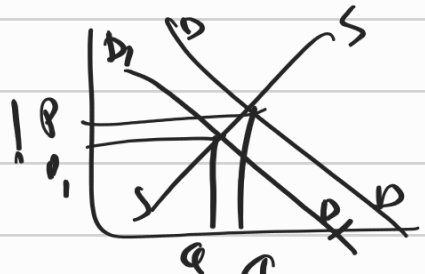
- Large → wholesale market
- Small → Retail market

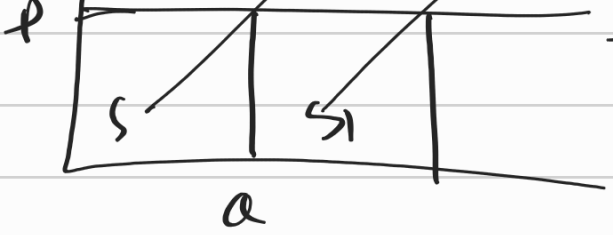
Determination of Equilibrium price & output



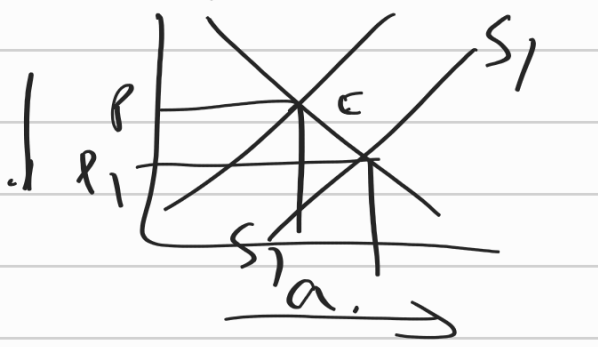
	DD	SS	New Eq. Price	New Eq. Qty	
①	↑	const	↑	↑	
②	↓	const	↓	↓	
③	const	↑	↓	↑	
④	const	↓	↑	↓	
⑤	↑	↑	uncertain	↑	} Prop^n is not given
⑥	↓	↓	uncertain	↓	} Prop^n is not given
⑦	↑	> ↑	↑	↑	
⑧	↑	< ↑	↓	↑	
⑨	↑	= ↑	constant	↑	
⑩	↓	= ↓	Const	↓	
⑪	↓	> ↓	↓	↓	
⑫	↓	< ↓	↑	↓	
⑬	↑	↓	↑	uncertain	
⑭	↓	↑	↓	Uncertain	
⑮	↑	= ↓	↑	Constant	
⑯	↓	= ↑	↓	Constant	

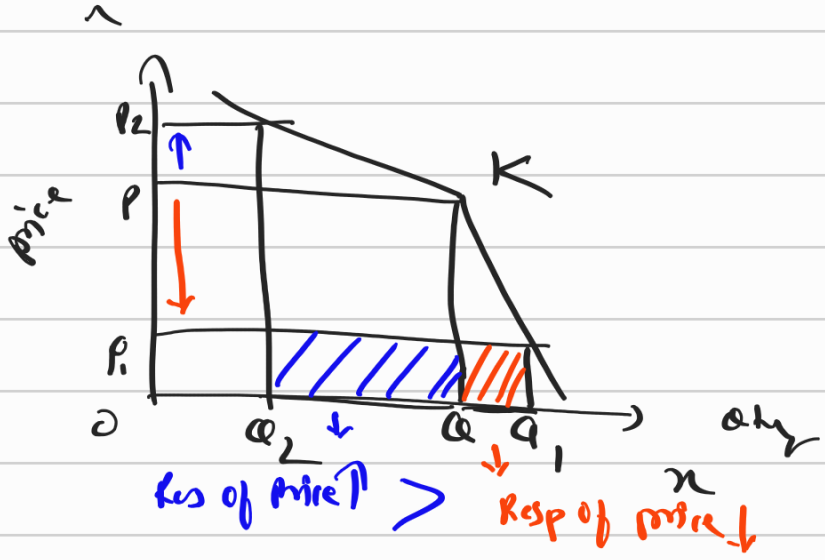
	Qty
↑ = ↓	Cons
↓ = ↑	
↑ = ↑	Price
↓ = ↓	cost




P
S
S1
Q
D (perf elastic)

S1 ↑ = Db


P
P1
E
S1
Q


P2
P
P1
Price
K
O
Q2
Q
Q1
Qty
Res of Price ↑ > Resp of price ↓