# INTRODUCTION TO ECONOMICS
BSE: 3rd SEMESTER

## 23/1/24

⊙ Economics ⊙ Politics ⊙ Society
(Daily Affairs)

* Economics plays important role in current affairs. E.g: Literacy rate, (Read & Write of own name only).
censuss etc.....

* Literacy and Education both matters a lot.

Science
- Natural (matter)
- Social (Behaviour of human)

## *ECONOMICS:

The human behaviour towards economic activities.

E.g: Sale / Purchase, Saving, Loan, Investment etc....

* The Management of scarce Resources to fulfill human wants in order to achieve Maximum satisfication or Maximum output

: Investment :
Profit earning

in an efficient way.

(*) Management- Decision making.
(The right way decision).

(*) Resources (all the things available).
Scarce Resources (Natural and Manmade) (Time Management) (Limited Sources).

(*) Human wants (Unlimited). But Basic needs are:
(1) Food (2) Cloth (3) Shelter
(If all these are available then comforts wants). (Luxuries start after comfort).

(*) (1) Consumer / Buyer, Goods (things) (maximum satisfaction)
(2) Producer (maximum output) (Profit).

(*) Efficient way (100%. of effort).

(*) Branches of Economics:
(1) Micro Economics (study of individuals) (one tree from forest)
(2) Macro Economics (study of whole country or nation) (Pakistan and India Economy).

(*) Micro (Household) Consumer → Manage Income → Max satisfication
Micro (Firm) Producer → Management → Resources → Max output
Macro → whole economy → Aggregates → Economic Growth / Development

** Project: Group Presentation (Before mid)
(Also after mid)
2,3 Quiz before mid.
(Conventional Economics)

* International Economy, Development Economics, Econometrics (Maths, CS, SE, Technologists), Islamic Economics (Teaching of Quran and Hadees)

## 25/1/24

* Finance is a part of economics.
* Problems of country solved by stability and management.
* Consumer and producer should decide or act rationally (positive aspects)

## Branches:

(1) Micro Economics
- Consumer
  - Household
    - Manages Income
      - Maximum Satisfaction (Utility)
- Producer (Entrepreneur)
  - Firm
    - Manage Resources
      - Maximum Profit (π). (COST)
        ~~π = R - C~~ (Revenue)

(2) MacroEconomics

* Factors of Production (Management, Employee, Decision maker, material etc).

(FOP) (Transformation of input into output).

* Four factors of Production:
  1. Land
  2. Labour (Every Human works) (Teacher, Principal) (Human Resource)
  3. Capital (Financial resources, materials, equipments etc —
  4. Business Organization (Manager).

In order to undergo production these four factors must be followed.

* You can start your business by taking loan.

* Firm (Organization) (Single owner) (BATA) (selling place-outlet), Factory (Producing of things), Industry (Shoe Industry. Combination of firm producing same good)

* $\pi = R - C$
  (Profit) (Revenue) (cost)

(Price × Quantity)
1000 × 10
= (10000) − C → rent, wages, Interest, $\pi$

Land-rent
Labor-wages
Capital-Interest (loan)
: In every business one pays other earns.
Business organization → $\pi$ Profit

⊙ If $R - C > 0$ then $+\pi$ (Positive Profit). (Abnormal Profit)

* Aid and Loan (Interest)
  (Not to payback)

: Brain Drain (Effect of Unemployment & income) (Leave your country & serve other).

* Remittance: Foreign Income
  (Not include in Domestic level)

(*) $\pi = (+) \rightarrow$ Abnormal ($\pi$) $R > C$

$\pi = 0$ $(R=C) \rightarrow$ Normal profit

$\pi = (-)$ (Loss) $R < C$

The Goal of firm is to earn profit.

(*) Consumer behaviour & firm behaviour.

Firm (Categorized) → Competition

(3 major category)

Monopoly (single seller) | Oligopoly (Some countable firms) (Mobile Phone Company) | Monopolist (uncountable firms) (Strategies for marketing capturing or advertisement)

∴ Firm: Balance Sheet

(*) 3 Basic Questions of firm

① What to produce. (Allocation of Resources)
② How to produce. (Methodology and techniques)
③ For Whom to produce. (Distribution of Profit).

Land - rent
Labor - Wages
Capital - Interest
Organization - $\pi$ (profit).

## (*) Economic Thoughts:

① Capitalism (Economy where private ownership) (No Government Intervention) (self-Interest)

② Socialism (System of Government) (Government have check over any business)

(Every decision should think about the society)

(3) Islamic Economic System (Follow teaching of Quran and Sunnah) (Accountable for our deeds)
(Teachings of Islam not harm anyone) (Both include capitalism & socialism)
(Pakistan is mixed economic system) (Private & Government)

30/1/24

## ✱ Positive Vs Normative Economics

(Fact or figure)

→ Positive Economics:
Statement of Fact or Figure (only fact)

→ Normative Economics:
Study of Judgemental statements. (Suggestion also added with positive)
E.g: Pakistan should decrease inflation.

## ✱ Scarcity Vs Efficiency

(Limited Resources) (For achieving the targets by putting efforts)
(For Earning and Competition Scarcity is important) (Consequence of scarcity)

## ✱ Developed Vs Underdeveloped

(Achieve the economic target) (Trying to achieve economic target)
(E.g: China, Japan) (Pakistan, Sri-Lanka)

- Millinieum (1000 years), Century (100).
- Millinieum Goals (IMF, WHO etc~)
- SDGs (Sustainable Development Goals)
- 1st July – 31st June (Budget Plan).
- Health, Education, Communication, Transport & Industrial Sectors.
- Global Financial Crisis (2008). Sri-Lanka Crisis (Now a days)
- 1970 (Oil Crisis) (Arab Countries Spring crisis of oil).
- Management (Properly Balance to get economic result).
- Google Scholars (Article Reading)

## PRODUCTION POSSIBILITIES (Ways) FRONTIER (Boundary) (Maximum Capacity)

→ Goods

| x Guns (Defense tools) | | x Butter (Food consumption) | |
|---|---|---|---|
| 100% (A) | 15 Guns | 0% (A) | 0 |
| (B) | 14 Guns | (B) | 1 |

(People want butter) (achieving & learning)

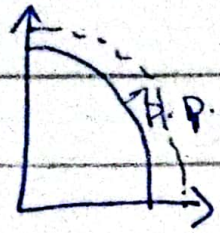
• Define and explain P.P.F & P.P.C with respect to Inefficiency, Opportunity cost, Efficiency.

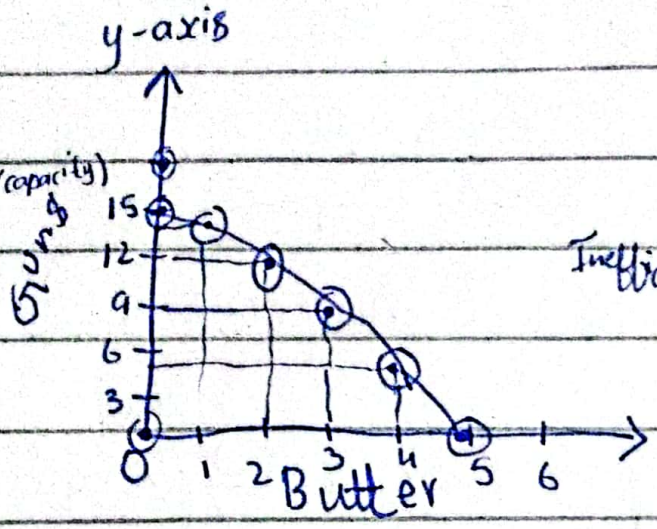
: Question
- ⊙ Definition
- ⊙ Graph
- ⊙ Example

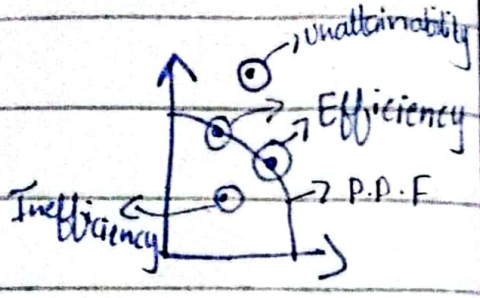
| | | |
|---|---|---|
| C | 12 | 2 |
| D | 9 | 3 |
| E | 5 | 4 |
| F | 0 | 5 |

Opportunity cost

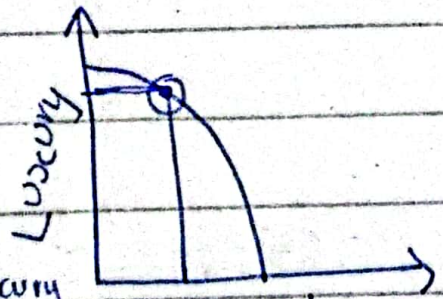
: Six combination showing different levels of combination



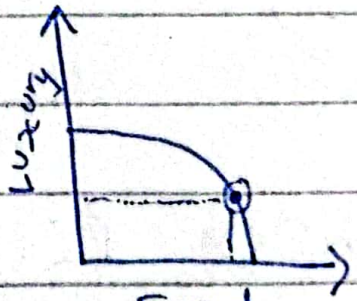




## ⊛ High Income Nation (Rich)



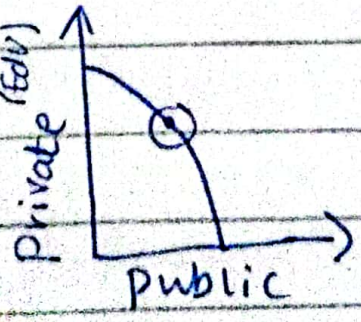

: More Luxury
Less food

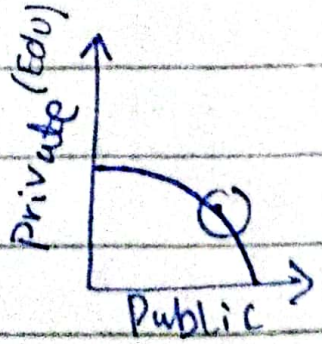
## Low Income Nation (Poor)




: More food
less luxury

## ⊛ Urban Frontier




: May be Quiz on Thursday

11/2/24

## Market:

Place where is a demand and supply

(Consumer) (How much is required) (Actually consumer wanted to buy through specific resources) (Income Management)

(Producer) (Output or goods sent to market or available in market for consumer to buy) (Resources Management)

→ **Income** (Earning) (Putting effort and earning some wages).

→ **Wealth** (Its all the person own) (Assets) (Earned from anything) (Ownership).

→ Purchasing Power (The power to buy something) (Rich has more purchasing power than poor). (Upper class, Middle class, Lower class)

→ **Demand:**

Whenever you go outside to buy something, if price is high then purchase is less.

: **Law of Demand:**

The relationship b/w Price and QD (Quantity Demand)

(*) ↑Price $\propto \frac{1}{QD\downarrow}$

(*) **Normal** Goods (which follows law of demand).

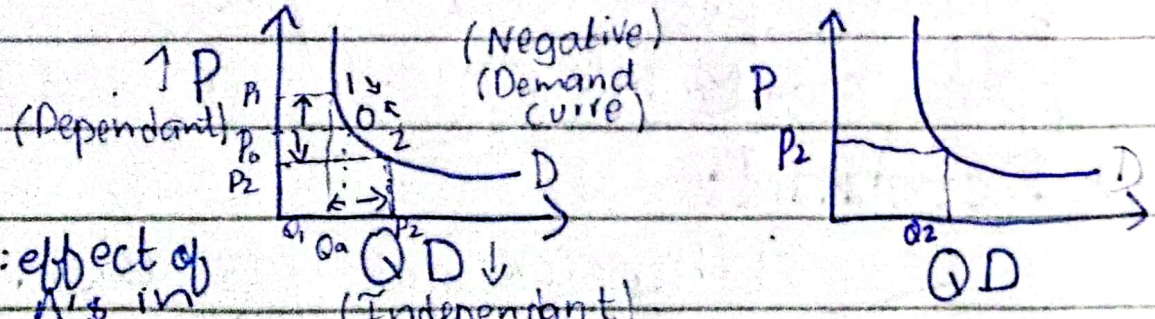
(*) **Giffen** Goods (Donot obey law of demand).

(*) **Inferior** Goods (Cheap) (P↓ → Q↓)

(*) **Superior** Goods (Luxury, High price) ↑P → Qd↑ (Not related to daily life).

(*) Basic Goods (Always Required not depend on price).

(*) Dependant and Independant Variables




:effect of Δ's in Price of Qd (same Good) (Level of Demand).

(*) **Substitutes:**

Prefering one good over other of same quality but different company. (Depend on price level).

## ⑥ Compliments:

Two or more quantity depend on each other. One good price increases, then other increases. E.g: Bat & ball, Racket & shuttle etc....

→ Some things have no substitute. No effect on demand. Eg: Milk, wheat etc.....

→ Whenever price of good changes, the level of demand changes.

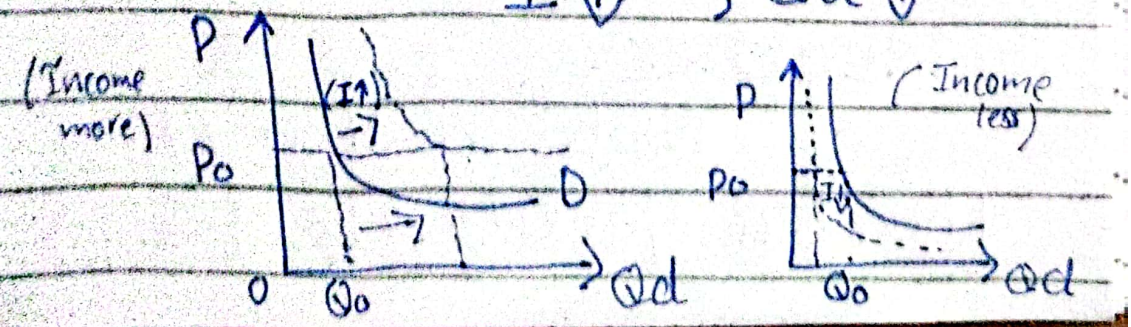
## ⑥ Determinants of Demand:

Demand changes not with respect to changes of price (remains same) Demand depends on: (Population, quality)

### ① Income

I ↑ → Qd ↑

I ↓ → Qd ↓



## ② Population:

Pop↑ → Qd↑

Pop↓ → Qd↓

: Poor people think children as their asset

: 6th most populous country Pakistan.

## ③ Availability of Substitutes: (Price)

Price of substitute ($P_s$) ↑ ⟷ Qd ↑

Price of substitute ↓ → Qd ↓

. Coke & Pepsi

## ④ Expected Price Future: (Effect on current Demand)

Price expected (Pex) ↑ → D ↑

Price expected (Pex) ↓ → D ↓

## ⑤ Taste:

Taste↑ → QD ↑

Taste ↓ → QD↓

## ⑥ Weather:

Winter weather (Dry fruits coffee, tea, jackets etc....)

## ⑦ Price of Related Goods: (↑Burger → ↑Chicken)

If the material price increases then that good price also increases and vice versa.

Demand curve is effected.

④ Grand Quiz (After Holidays).

(otherwise Quiz on 6/2/24)

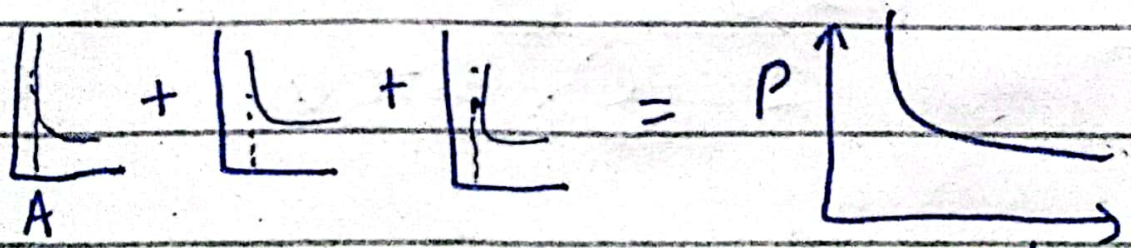
13/2/24

n).

## *Market Demand:

$$P \propto \frac{1}{D}$$

① Sum of all the individuals demand is called market demand.




Market

Demand  supply

## *Supply:

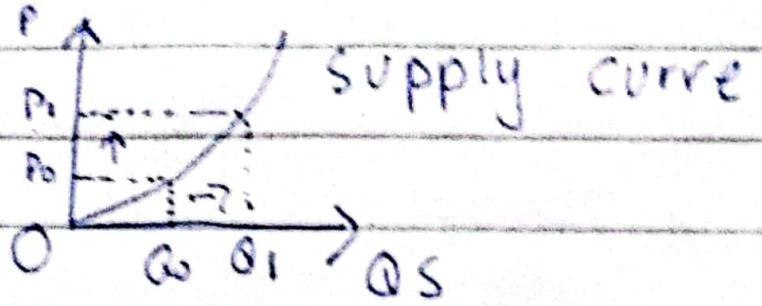
⇒ Firm / Producer

→ Manage all F.O.P

④ Price and Quantity have direct relation. (always upward curve).

$\uparrow Q_S \times P\uparrow = \uparrow$Revenue

$Rev\uparrow \rightarrow \uparrow(\pi)$




⑤ Effect of $\uparrow\Delta$ in Price on Supply

⑥ Determinants of Supply:

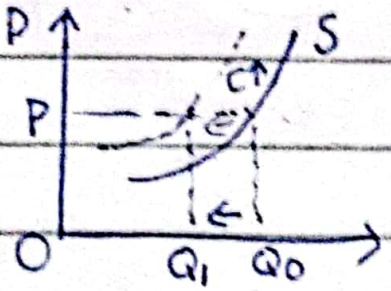
(i) Cost of Production:

a)

$C\uparrow \rightarrow S\downarrow$

$P \times Q = R$ : Profit maximization

$R - (C)\uparrow = \pi\downarrow$ : cost minimization




(ii) Price of Raw Materials:

$P\uparrow \rightarrow Q_S\downarrow$

(Price)

(2) Future Exp: ize)

$P_{exp}\uparrow \rightarrow Q_s\downarrow$

(3) Degree of factor Mobility: (movement)

Availability of factors of production (materials). (cost less)
: Easy or difficult (cost more)

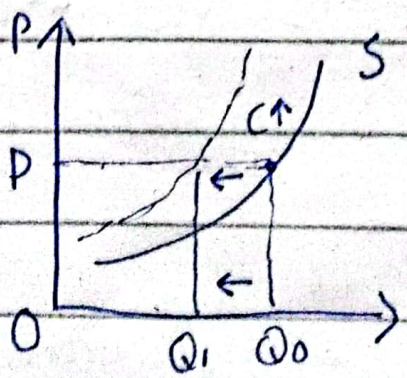
$COP\uparrow \propto Q_s\downarrow$

(4) Demand: n).

Demand of related things costs, taste and weather etc....

$\uparrow Q_D \propto Q_s\uparrow$

* Demand from consumer behaviour and supply from firm behaviour.




* Technology:

Anti (Cousumer) and Pro (for producer) subsidy by Gorernment.

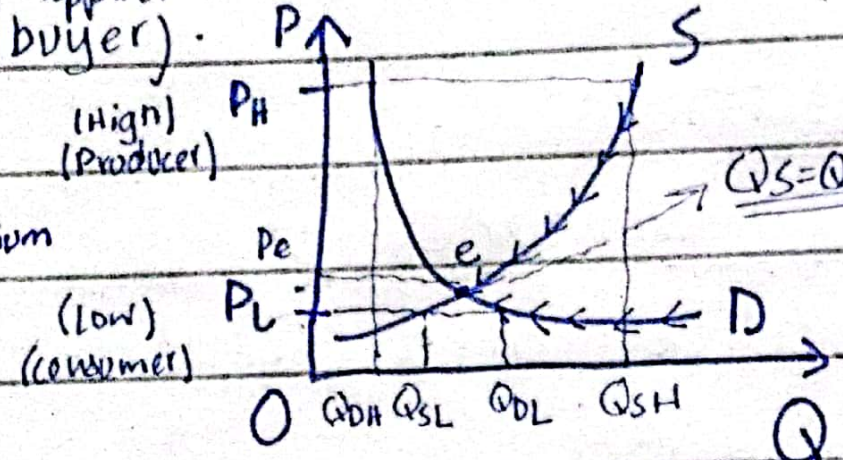
⊛ Pakistan Bureau (Wages and details of price).

⊛ Taxes (Effect both consumer and supplier).

↑Tax → ↓Consumer buying power

## * Market Equilibrium:

(Interaction of supplier and buyer).




: e = equilibrium

(No shortage or surplus).

At low P
Qs ≠ Qd
Q d ⅃ Qs
(Shortage)

At high P
Qs ≠ Qd
Q ⟩⟩ Qd
(Surplus)
(زیادتی)

→ If there is shortage and surplus in market then there is no market equilibrium.

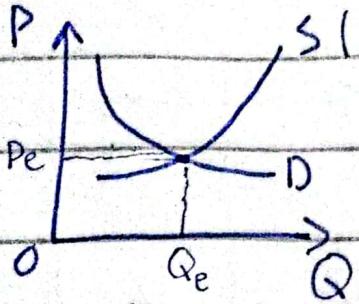
20/2/24

(*) Market equilibrium is obtained Demand and supply curve.

(Negative slope) (Opportunity cost decreases) (Positive Slope) (Profit Increases)

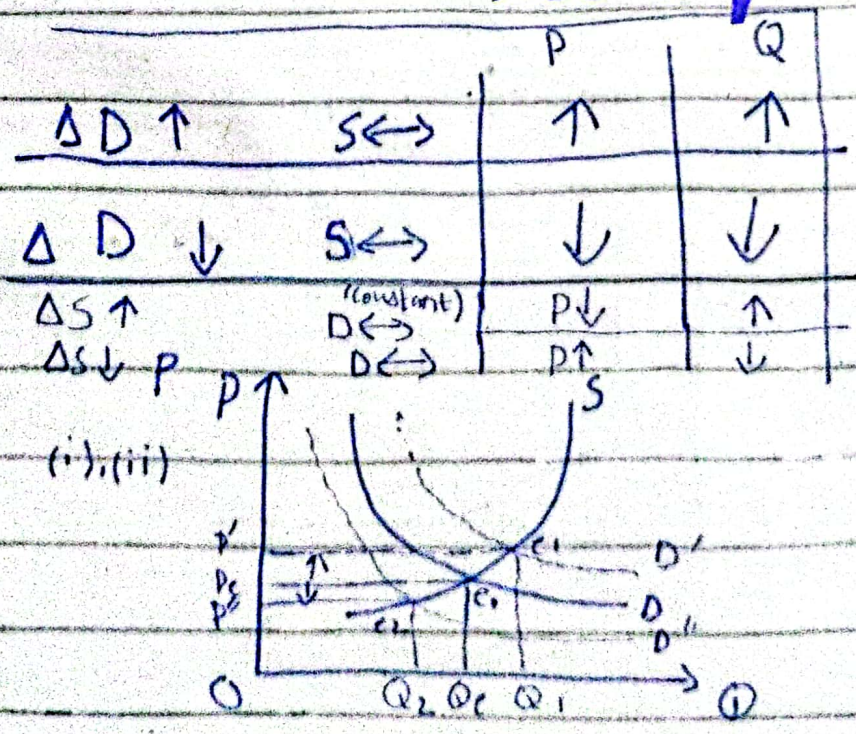
(Negative Reaction) (Because of availability of substitute)

⊛ Utility (satisfaction) (Customer utilize) (can be measured). (More utilize, cousume increases satisfaction level decreases). (Drinking water in thirsty condition)! (Adam's Smith) (Pioneer of Economics) (Water - Diamond paradox theory).
(Abondant less worthy) (Less more worth)

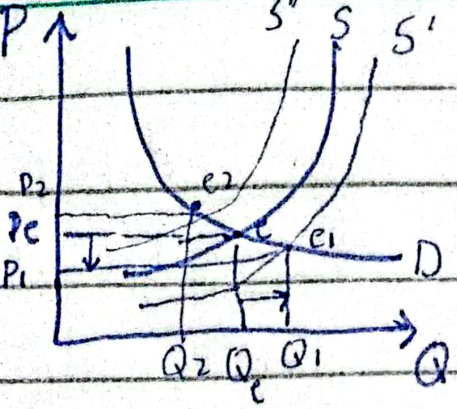
⊛ 

(Market Equilibrium)
(No shortage or surplus)

## * Changes in D & S on P & Q in Market Equilibrium -



(iii)
(iv)



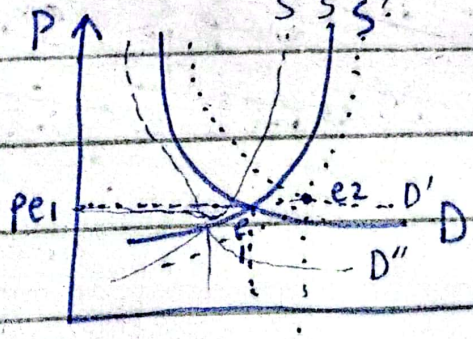

∴ To attain equilibrium Price and Quantity must be adjusted.

## ⊛ Cost of Production (Supply) and Income (Demand).

(*)

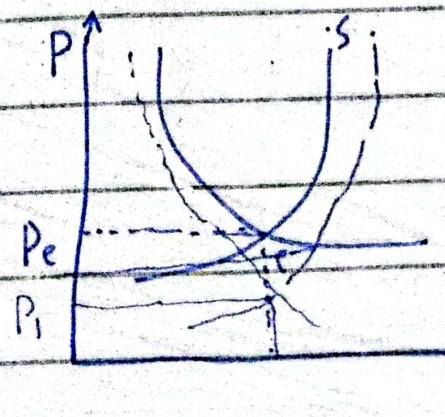
| | | P | Q |
|---|---|---|---|
| ΔD ↑ | S ↑ | ↔ | ↑↑ |
| ΔD ↓ | S ↓ | ↔ | ↓↓ |
| ΔS ↑ | D ↓ | ↓ | ↔ |
| ΔS ↓ | D ↑ | ↑ | ↔ |

(i), (ii)




∴ Price remains same
∵ equal shift in D & S.
∴ Quantity Double increases

(iii), (iv)




∴ 6 Q, 6 Graph Assignment : Next Tuesday

⊛ Tax imposition (Tax increases)

(Both buyer and seller pays tax)

If ↑T then ↓D ↓S

If ↓T then ↑D ↑S

22/2/24

# * ELASTICITY OF DEMAND:

Responsiveness of change in Qd with respect to change in price.

-> Petrol price, no response, less elastic. (inelastic).

Elasticity or Responsiveness.

=> More elastic & InElastic (Less elastic)

(More response) (Less response)
(Sale on things) (Basic needs)
(Substitute available) (No substitute available)
(Luxuries)

-> Long run time (Short run time period)
(Monthly or less than 1 year) (less elastic)

Period (years or decade (10)). (century, millinieum (1000 years)).
(More elastic)

* Ped (Price elasticity of demand)
(Change in Price).

$$Ped = \frac{\% \Delta \text{ in } Qd}{\% \Delta \text{ in } P}$$

: 5 cases of Elasticity behaviour

→ ① Δ in Qd > Δ in P (Elastic case) $e > 1$ elastic

→ ② Δ in Qd < Δ in P $e < 1$ inelastic

→ ③ Δ in Qd = Δ in P
(change) (Demand)

$e = 1$ unitary elastic

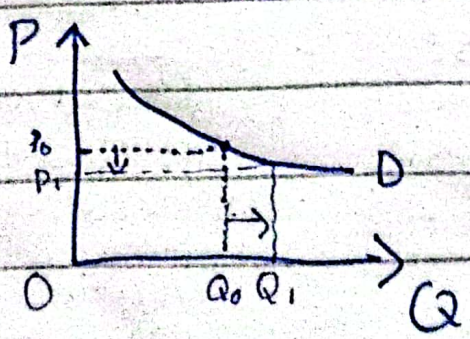
→ ④ Δ in Qd = ∞ : (Air breathing)
Δ in P = 0 Perfectly elastic

→ ⑤ Δ in Qd = 0 (Piece of land)
Δ in P = ∞ Perfectly inelastic

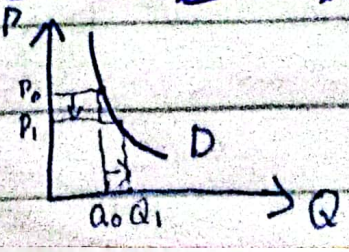
## ① Δ in Qd > Δ in P:

Elastic

: Flatter slope



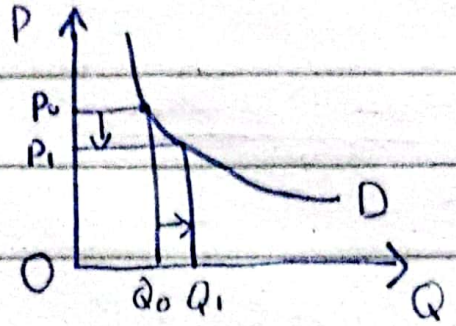

## ② Δ in Qd < Δ in P:




: stepper slope

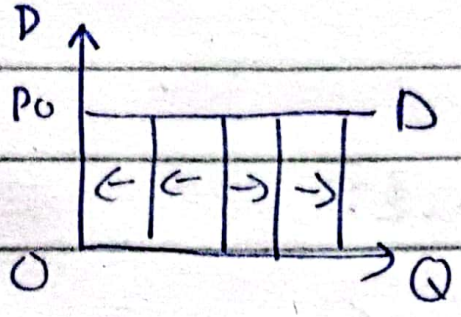
: Inelastic

## (3) Δ in Qd = Δ in P:



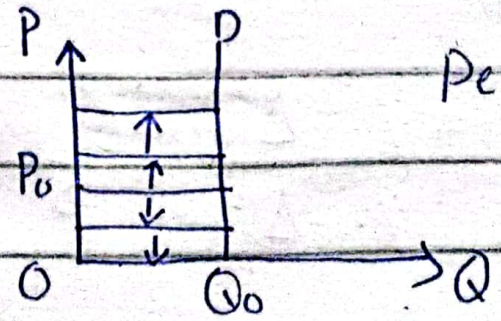

Unitary elastic.

## (4) Δ in Qd = ∞
## Δ in P = 0



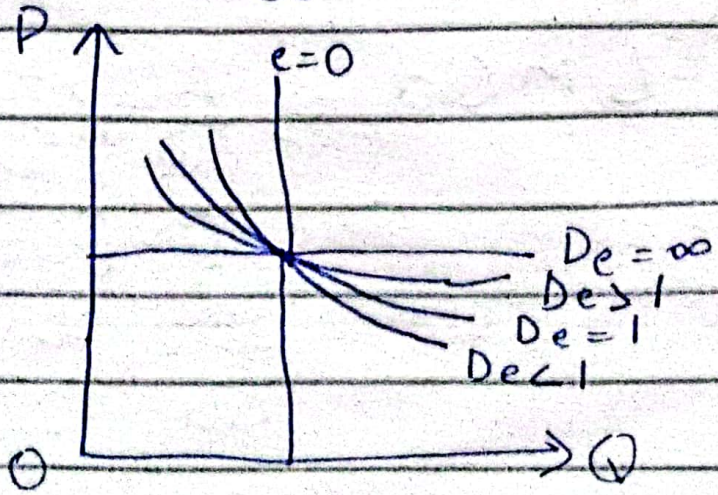

Perfectly elastic.

## (5) Δ in Qd = 0
## Δ in P = ∞




Perfectly inelastic.

## (6)




(All in one diagram)

## * Income Elasticity:

$$= \frac{\%\ \Delta \text{ in } Qd}{\%\ \Delta \text{ in } I}$$

## * Cross Elasticity:

Good A Good B

$$= \frac{\%\ \Delta \text{ in } Qd(A)}{\%\ \Delta \text{ in } P(B)}$$

: Substitute (+, positive)
: Complement (−, negative)
: Normal (0, zero)

## → Numerical:

① 

| P | Q |
|---|---|
| 2 | 100 |
| 4 | 90 |

Sol:- $e = ?$

$$ed = \frac{\%\ \Delta \text{ in } Qd}{\%\ \Delta \text{ in } P}$$

⊙ Step - I:

$$\%\ \Delta \text{ in } Qd \Rightarrow \frac{\Delta Q}{Q} \times 100$$

$$\Delta Q = [Q_2 - Q_1]$$

$$\Delta Q = 100 - 90$$

$$\Delta Q = 10$$

$$Q = \frac{Q_1 + Q_2}{2} = \frac{100+90}{2}$$

$$Q = 95$$

$$\%\ \Delta \text{ in } Qd = \frac{10}{95} \times 100$$

$$= 10.56\%$$

⊙ Step- II:

$$\%\ \Delta P \text{ in } P = \frac{\Delta P}{P} \times 100$$

$$|\Delta P| = 2 - 4 = 2$$

$$P = \frac{2+4}{2} = \frac{6}{2}$$

$$P = 3$$

$$\%\ \Delta P \text{ in } P = \frac{2}{3} \times 100$$

$$= 66.66\%$$

$$\rightarrow ed = \frac{\%\ \Delta \text{ in } Qd}{\%\ \Delta \text{ in } P} = \frac{10.56}{66.66}$$

$$ed = 0.15$$

$[e < 1]$ (Inelastic)

② $\%\ \Delta \text{ in } Q = 10.2\%$

$\%\ \Delta \text{ in } P = 5.6\%$

$ed = ?$

27|2|24

## ★ ELASTICITY OF SUPPLY:

→ Price elasticity supply:

$$Pes = \frac{\%\ \Delta \text{ in } Q_s}{\%\ \Delta \text{ in } P}$$

: $es > 1$ (elastic supply)
$es < 1$ (inelastic)
$e_s = 1$ unitary
$es = \infty$ perfectly elastic
$es = 0$ perfectly inelastic.

## Factor:

### (1) Capacity of firm:

↑ COF ∝ $e_s$ ↑

→ less expansion of business, then it is inelastic.

## 2) Length of Production Process:

→ Wheat or any crops price not increase immediately.

$\downarrow LOPP \propto \frac{1}{es\uparrow}$

## 3) Degree of factor Mobility:

$P\uparrow \times Q\uparrow = (R)\uparrow$

Resources easily available = elastic supply

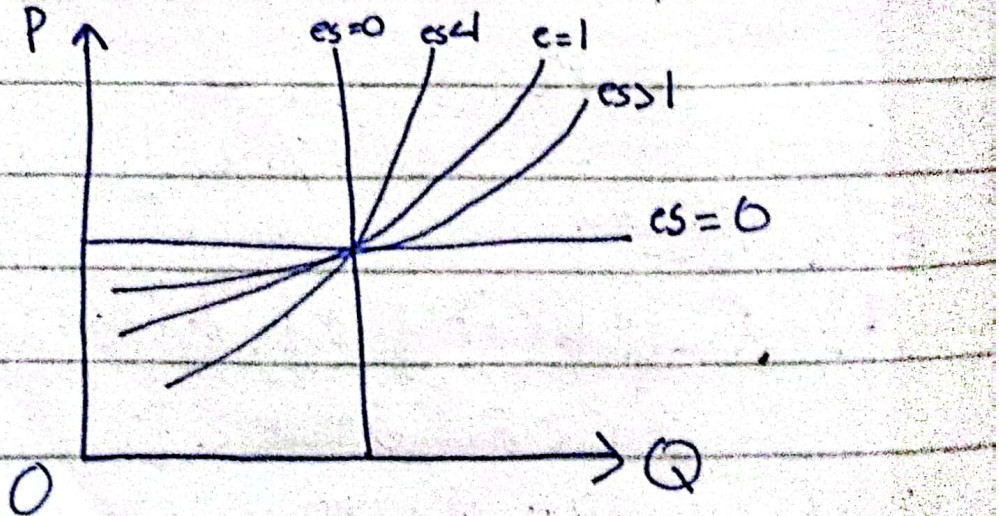
Not easily available = inelastic supply.

## 4) Barriers of Entry:

(By Government or registration).

More Barriers → Inelastic

Less Barriers → Elastic.



## ★ Example:

| P | Q |
|---|---|
| 10 | 25 |
| 20 | 25 |

$$Pes = \frac{\%\ \Delta \text{ in } Q_s}{\%\ \Delta \text{ in } P}$$

⊙ Step-I:

$$\rightarrow \%\ \Delta \text{in } Q_s = \frac{\Delta Q}{Q} \times 100$$

$$\Delta Q = Q_2 - Q_1 = 25 - 25$$

$$\Delta Q = 0$$

$$Q = \frac{Q_1 + Q_2}{2} = \frac{25+25}{2}$$

$$Q = 25$$

$$\%\ \Delta \text{ in } Qd = \frac{\Delta Q}{Q} \times 100$$

$$= \frac{0}{25} \times 100$$

$$= 0\%$$

$$Pes = \frac{0}{\%\ \Delta \text{in } P} \Rightarrow Pes = 0$$

$es = 0$ (Perfectly inelastic).

# * CONSUMER BEHAVIOUR:

→ Rational
(Decision-making right or have complete knowledge and information)
(Personality making decision correctly and not harms our society then it is rational behaviour).

Manage Income → Budget / Affordability ← Maximum satisfaction → Utility

→ Decision (Choice, Taste, Preferences)
→ Absolute (Firstly decided).
→ Utility

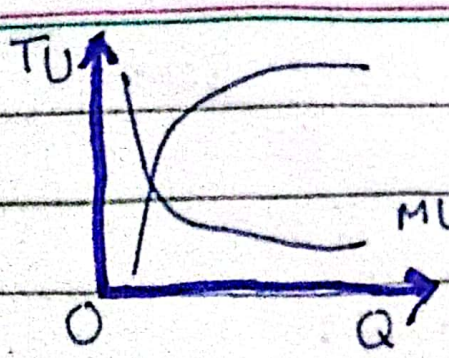
Ordinal (rank and order and then select). (One has more satisfaction than other).

Cardinal → Absolute (One good is prior to other) (Maximum satisfaction level)

| Qd | TU (Total Utility) (Units) | MU (Marginal Utility) $\frac{\Delta TU}{\Delta d}$ | |
|---|---|---|---|
| 0 | 0 | - | |
| 1 | 4 | 4 | Diminishing MU |
| 2 | 7 | 3 | |
| 3 | 9 | 2 | |
| 4 | 10 | 1 | |
| 5 | 10 | 0 ↓ | |

(satisfaction decreasing (declining concept)

→ Law of Diminishing MU.




: Good Choose (M.U increases) (Tells us actually Utility)

∴ $TU = \Sigma MU$ (Only tells total units)

∴ $\frac{MU}{P}$

→ Good X  Good Y  Good Z

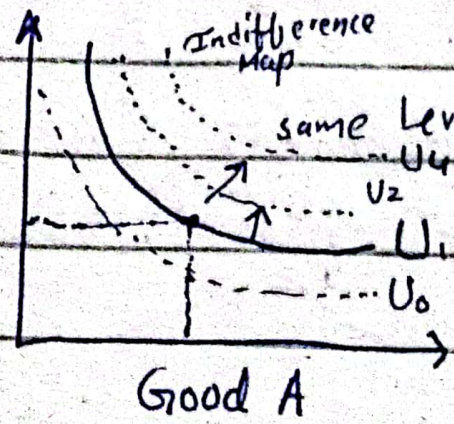
(ordinal) $\frac{MU_x}{P_x} = \frac{MU_y}{P_y} = \frac{MU_z}{P_z}$

(cardinal) $\frac{MU_x}{P_x} > \frac{MU_y}{P_y} > \frac{MU_z}{P_z}$

# 5/3/24

④ Marginal means per unit change.

Good A  Good B




∴ Number or amount of goods you want.

→ Indifference Curve (Any combination of 2 goods, consumer is willing

to get but have same level satisfaction.

## → Budget Line:

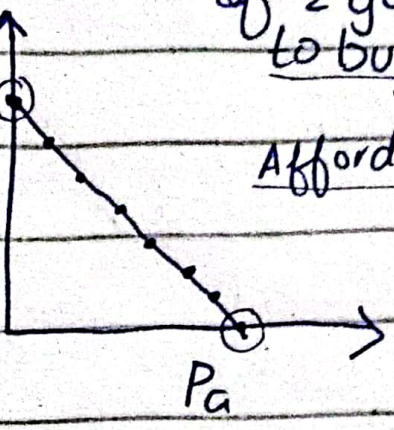
shows combination of 2 goods you want to buy.

: Between prices of goods.

: Income Line

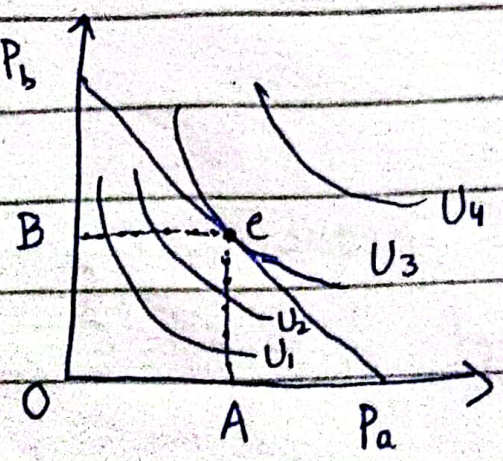
Affordability

Purchasing Power




## → Consumer Equilibrium:

The one indifference line which meets budget line is a point of consumer Equilibrium.

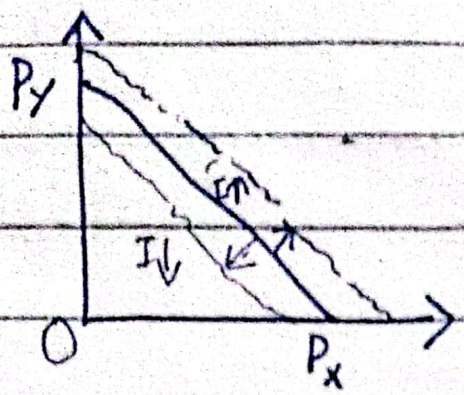



## → Changes in Consumer's Equilibrium:

- Δ (change) in Income
- Δ (change) in price
  - $P_x$ ↑ ↓
  - $P_y$ ↑ ↓

(*) For short term (per month), budget is same.

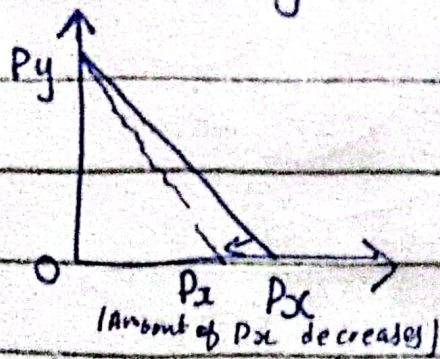
## ⑧ Δ in I and Δ in P changes or effect budget line.



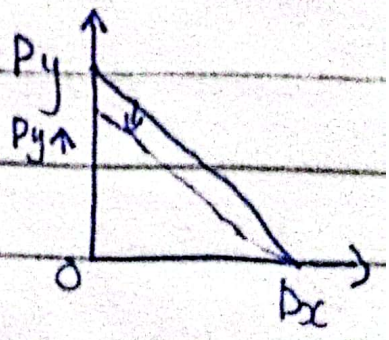

(i) Δ in P

- Px
  - Px↑
  - Px↓
- Py
  - Py↑
  - Py↓

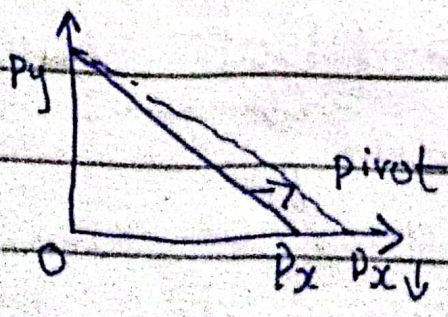
→ Px ↑ Py ↔



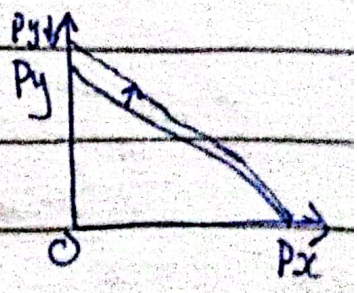

(iii) Py ↑ Px ↔

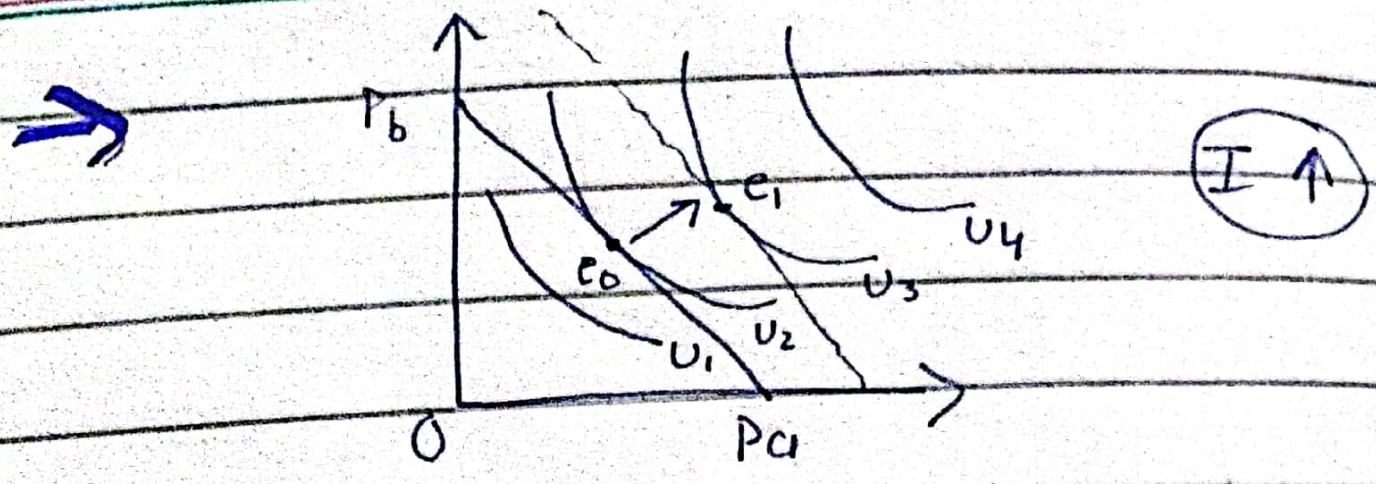


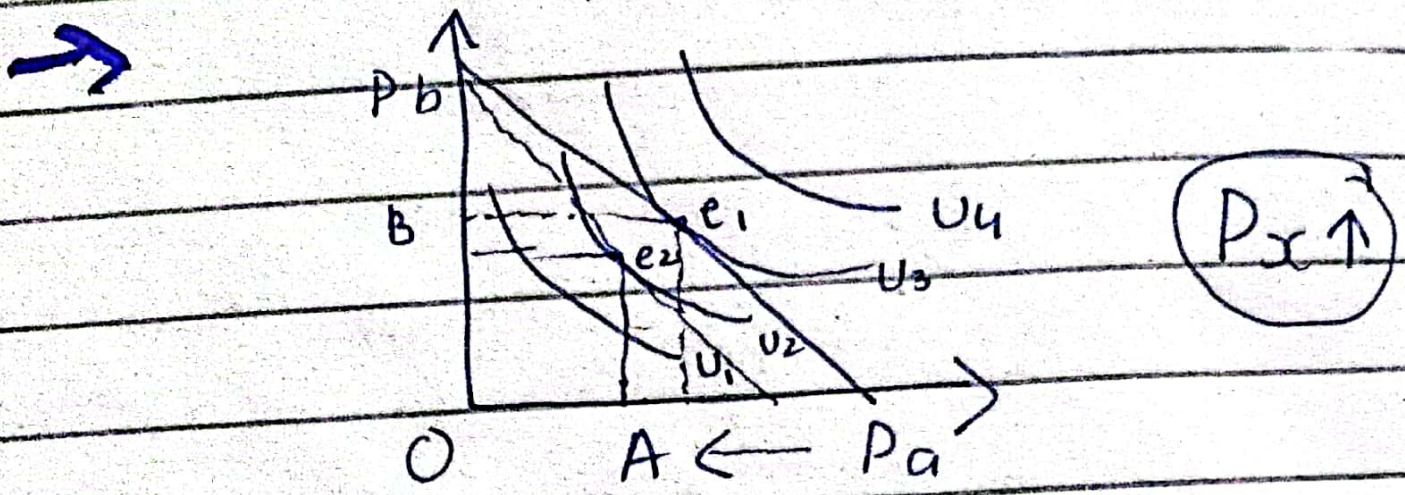

(ii) Px ↓ Py ↔

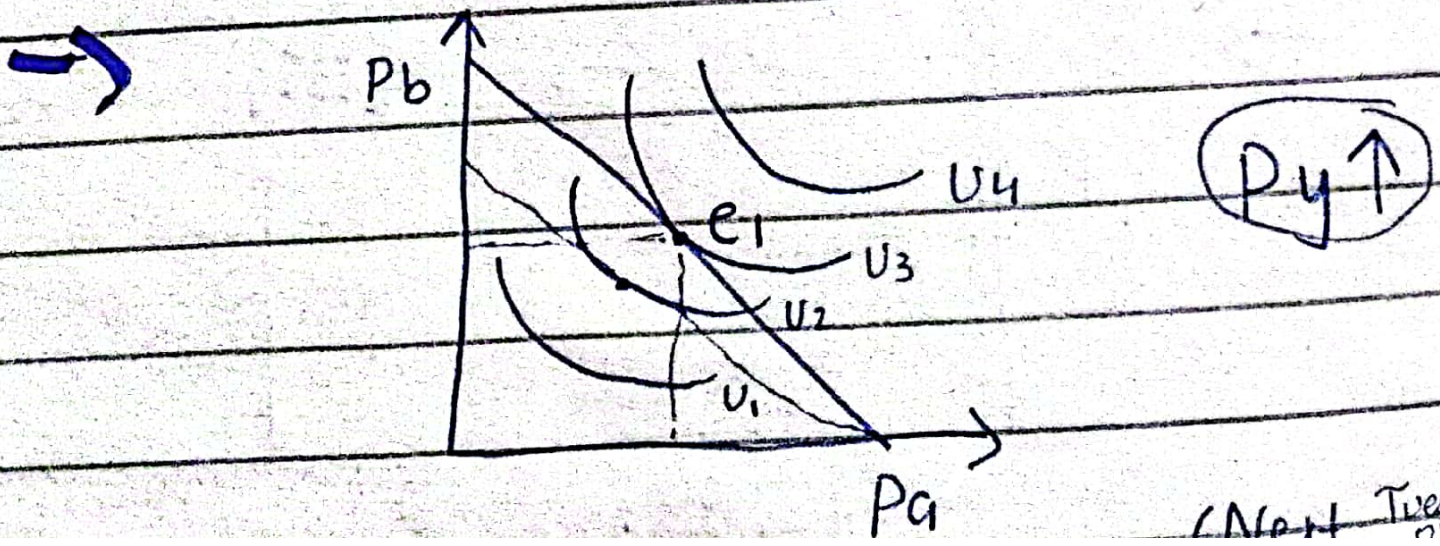



(iv) Py ↓ Px ↔




Pb
e1
e0
U4
U3
U2
U1
O
Pa
I ↑


Pb
B
e1
e2
U4
U3
U2
U1
O
A
Pa
Px ↑


Pb
e1
U4
U3
U2
U1
Pa
Py ↑

(Next Tuesda

# ⊛ PRODUCTION:

Theory of firm behaviour.

→ One industry is part of sector. (Agricultural sector).

## ⊙ Theory of firm behaviour

- Cost Minimization
- Profit Maximization.

## → Time Span:

(i) ⊙ Infant:
0-6 months time

(ii) ⊙ Small / Medium scale / Short term:
6 months – 1 years.

(iii) ⊙ Large Scale / Long term firm:
After 1 year it will be large scale.

## → Capacity: (size)

- → small Production
- → Medium Production
- → Large Production.

## → Firm Organization:

1- Sole Proprieter (one owner of firm)

2- Joint Venture (share, partner)
(sharing of cost, profit, management, risks).
(Optimistic - Risk taker
Passimistic - Away from risk).
(Uptil 10 parthers).

3- Corporation (share holders more than 10)(C.E.O)

* Sole Proprieter (risk more, paying taxes).
* Corporate (profit more).
* Documentation:
  - → Balance Sheet (Keep record)
    - Assets
    - Liabilities
* Balance sheet should be equal (C.A work).

7/3/24

# ① Production Function:

maximum output (For any firm) a firm can produce by using given technology is production function.

→ Product
↓
Final Good
↓
Firm hold Good
↓
Manufactured
↓
Good

∴ R = P × Q
↑ ↑

## → Total Product:

I.P

| Input | Output | MP | |
|---|---|---|---|
| 1 | 2000 | – | |
| 2 | 3000 | 1000 | More input More cost More Production |
| 3 | 3500 | 500 | |
| 4 | 3800 | 300 | |
| 5 | 3900 | 100 | |

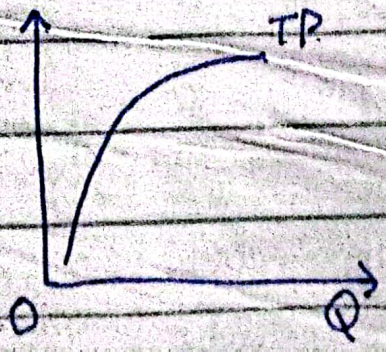
$\frac{\Delta TP}{\Delta I}$ : Input

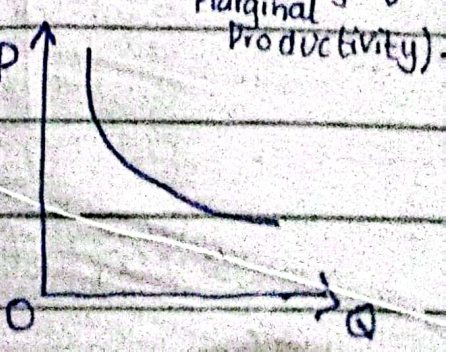
AP (Average Product) $\frac{TP}{I}$

2000
1500
1167
950
780

Labour:
Pay ↑ Leisure ↑
(Reasoning of Marginal Productivity).

→ TP



: Assignment (Table, explain, introduction) (3 Pages).

* ⊛ GFC (Global Financial Crisis).
Policy maker → Remove Crisis.

## ⊛ Returns of Scales:

⊙ Input → Output

(Large Scale firm) (Increasing Returns of Scales) Input <<< Output (More output is produced by less input)

(Constant returns to scale) Input = Output (Manual Handicrafts)

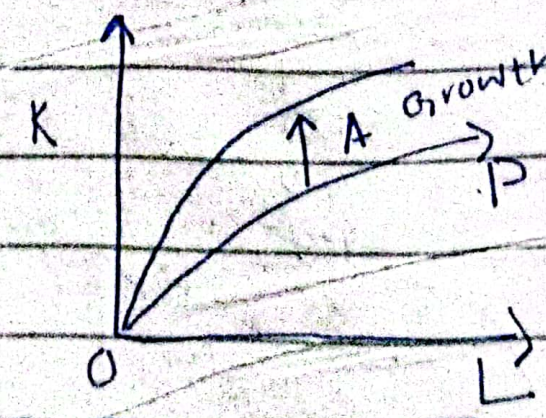
(Decreasing returns to scale). Input >> Output (Building making) (More material but less unit).

** ⊛ Strengths, Weakness, Opportunity, Threats (SWOT)

(Presentation) (One firm) (Firm visit) (Before mid) (Products display, business plan) (Copy of slides).

15 Marks → 10 (Group) (10-15 min) | 5 (Individual)

⊛ PF = A(K, L, N)
K → Capital, L → Labour, N → Land




R = P × ⊙
Productivity
rate of Input/output.

∴ Productivity = $\frac{Y/L}{TP}$

# → Cost Minimization:

F·O·P → payments
- → wage
- → Interest
- → Rent

: VC + FC = TC

**TC**

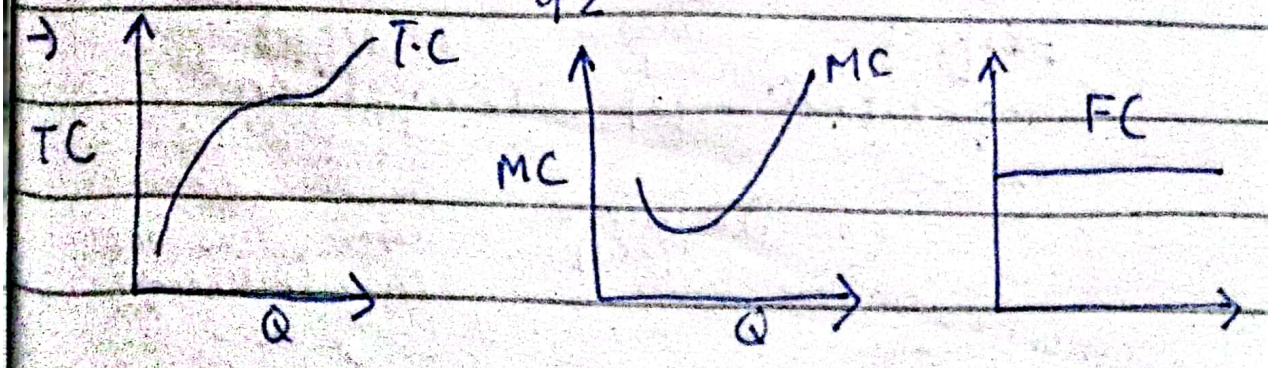
**Variable** (which changes throughout production process) (Tables, Chairs etc....)

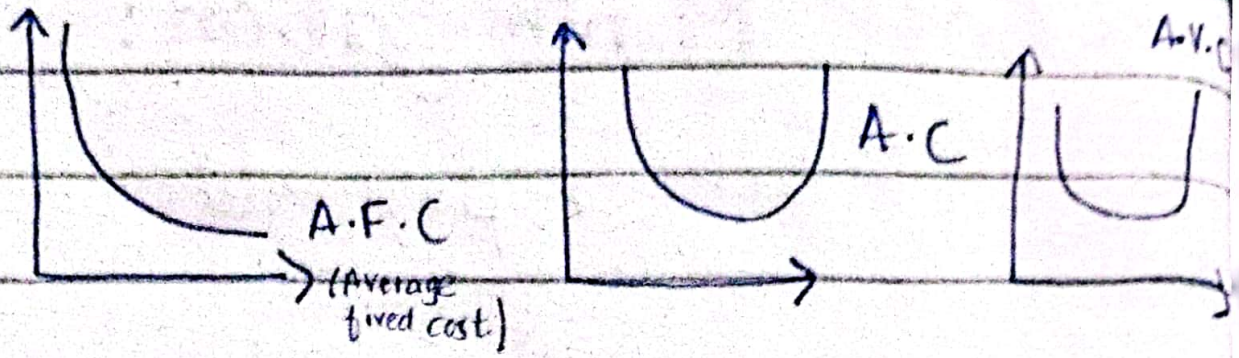
**Fixed** (Even no production, but cost is fixed). (Salaries of Permanent Staff, Land rent)

| → | Q | TC | VC | FC | Marg. MC ($\frac{\Delta TC}{\Delta Q}$) |
|---|---|---|---|---|---|
| | 0 | 55 | - | 55 | - |
| | 1 | 85 | 30 | 55 | 30 |
| | 2 | 110 | 55 | 55 | 25 |
| | 3 | 130 | 75 | 55 | 20 |
| | 4 | 160 | 105 | 55 | 30 |
| | 5 | 210 | 155 | 55 | 50 |

(Average) **AC** ($\frac{TC}{Q}$)

-
85
55
43.3
40
42






* Significance of cost Analysis:
(Decision to prolong business and make it cost minimum).
* U-shaped curve (More production and more marginal cost).

12/3/24

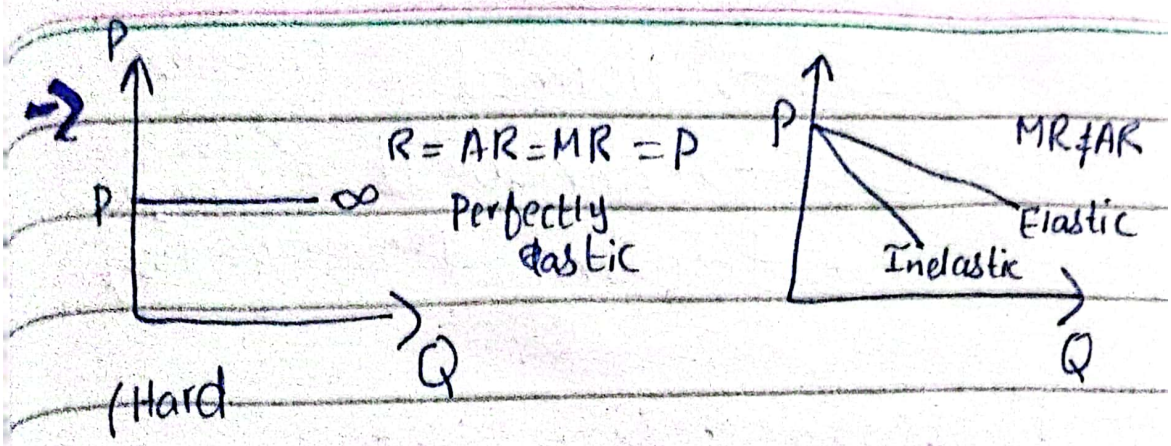
# Market Competition of Firms

Idealized Market Competition

**Perfect Competition** (Normal Profit)
-> Idealized
-> Price Takers (Free entry & exit)
-> Homogeneous goods
-> Many firms
-> Large No of buyer & sellers

Real World Competition

**Imperfect Competition**
-> Real Market
-> Price Maker
-> Heterogeneous Goods (Barrier to entry & exit)
-> Large No of buyers and sellers.




(Hard

→ **Monopoly** (That firm whose no competitor)
(Single) (seller) (All Government firms)
(It is endangered in long run)
(Sets price by ownself).
(Abnormal profit).

→ **Oligoply** (Few firms that can be countable) (Samsung, PEL, Dawlawnce, Haier)
(One leader sets price) (Price leadership)
(↑Samsung → ↑PEL, Haier ↑) (Other set within leader range).

→ **Monoplistic Competition** (Large Number of firms) (Profit margin is too low) (Strategies applied to earn more profit).

→ **Perfectly Competitive Markets**

$\pi = R - C$

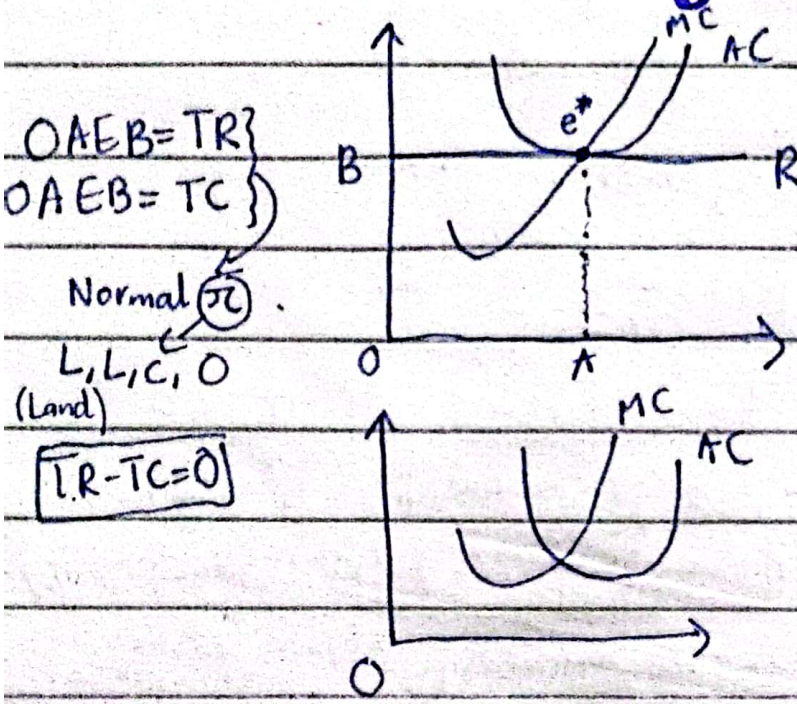
1- Normal Profits
2- Abnormal Profits

3 → Loss → Normal (Bearable loss)

4 → Loss → Abnormal (Makes your firm a danger zone)

5 → Shutdown (Unbearable loss).

## 1) Normal Profit:




$\pi = R - C$

$R = C, \pi = 0$

R = AR = MR = D (Demand)
(Average Revenue) (Marginal)

★ MC = MR




AC: Brooder view

MC: Compressed View

→ MC is below AC when AC↓

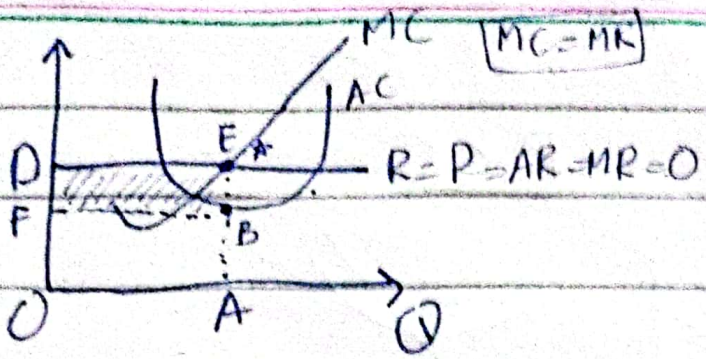
→ MC cuts AC at its Minimum

→ AC is ↑ → MC is also AC

## 2) Abnormal Profit:

$\pi = R - C$

$R > C \quad \pi = +ve$




OAED = TR

OABF = TC

$\pi C$ = DFEB = (TC)

# 14/3/24

## * Perfectly Competitive Markets / Firms :

1) Normal Profit 2) Abnormal Profit

3) Normal loss 4) Abnormal Profit

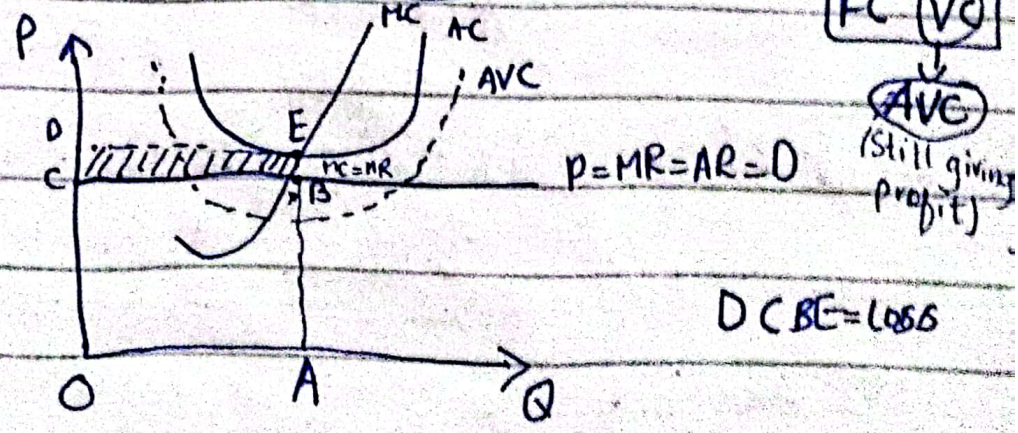
5) Shutdown

→ Loss - R - C = $\pi$ [C > R] $\pi$ = -ve

FC (VC)

↓

AVC (Still giving profit)




: Normal loss (2nd opinion)

: AVC firm (Our Industry can survive)

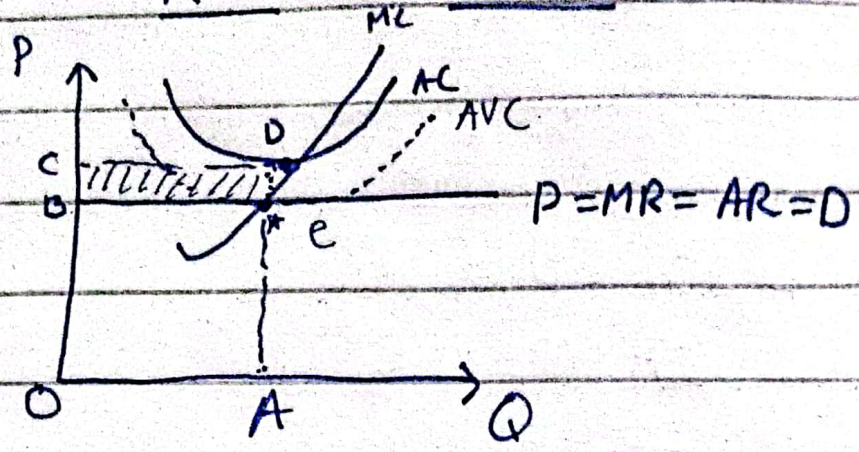
DCBE = Loss

OABC = TR

OOEA = TC

## → Abnormal loss:

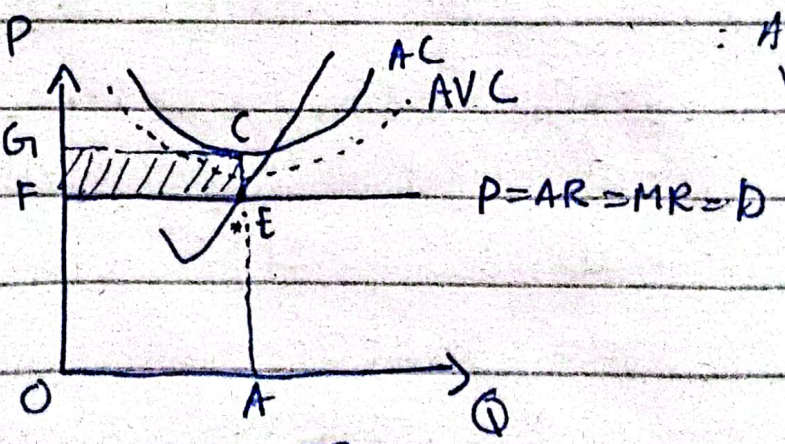
R < C  TC = -Ve




OAEB = TR
OCDA = TC
CBED = loss.

## → Shutdown:

(AVC) : Average Variable cost




OAEF = TR
OGCA = TC
GFCE = loss

## * Price Discrimination:

(Degree of factor mobility)
(Advantages and Disadvantages)

(*) Perfect and Imperfect market
(Quality, product differentiation)
(Price)
(Cost Minimization and Profit Maximization)