

lec 1:

economy : one who manages a household.

Scarce resources

10 principles of economics:-

1. all the calculations come into picture.

1. People face trade-offs. (to get one, we lose another) efficiency vs equity opportunity costs.
2. The cost of something is what you give up to get it.
3. Rational people think at margin small changes.
4. People respond to incentives.

5. Trades can make everyone better off.
6. markets are usually a good way to organize economic activity.
7. Governments can sometimes improve economic efficiency.

6. market economy: an economy that allocates resources through decentralised decisions of many firms & households. as they interact in market.

7. "Markets work, only if property rights are enforced!"

→ market failure occurs when, markets fail to allocate resources efficiently.

* after failure, govt. intervening

& promoting

efficiency & equity.

market failure may be caused by:-

• an externality: impact of firm on a bystander.

• market power: ability of firm to influence

market prices.

Adam Smith observed that buyers & sellers are guided by "invisible hands".

economist :- Observation, theory, more observation.

1. uses abstract models to help explain how a complex, real world operates.
 (like demand-price graph etc...)

2. Develops theories. collects data to evaluate theories.

* models simplify real world, making assumptions.

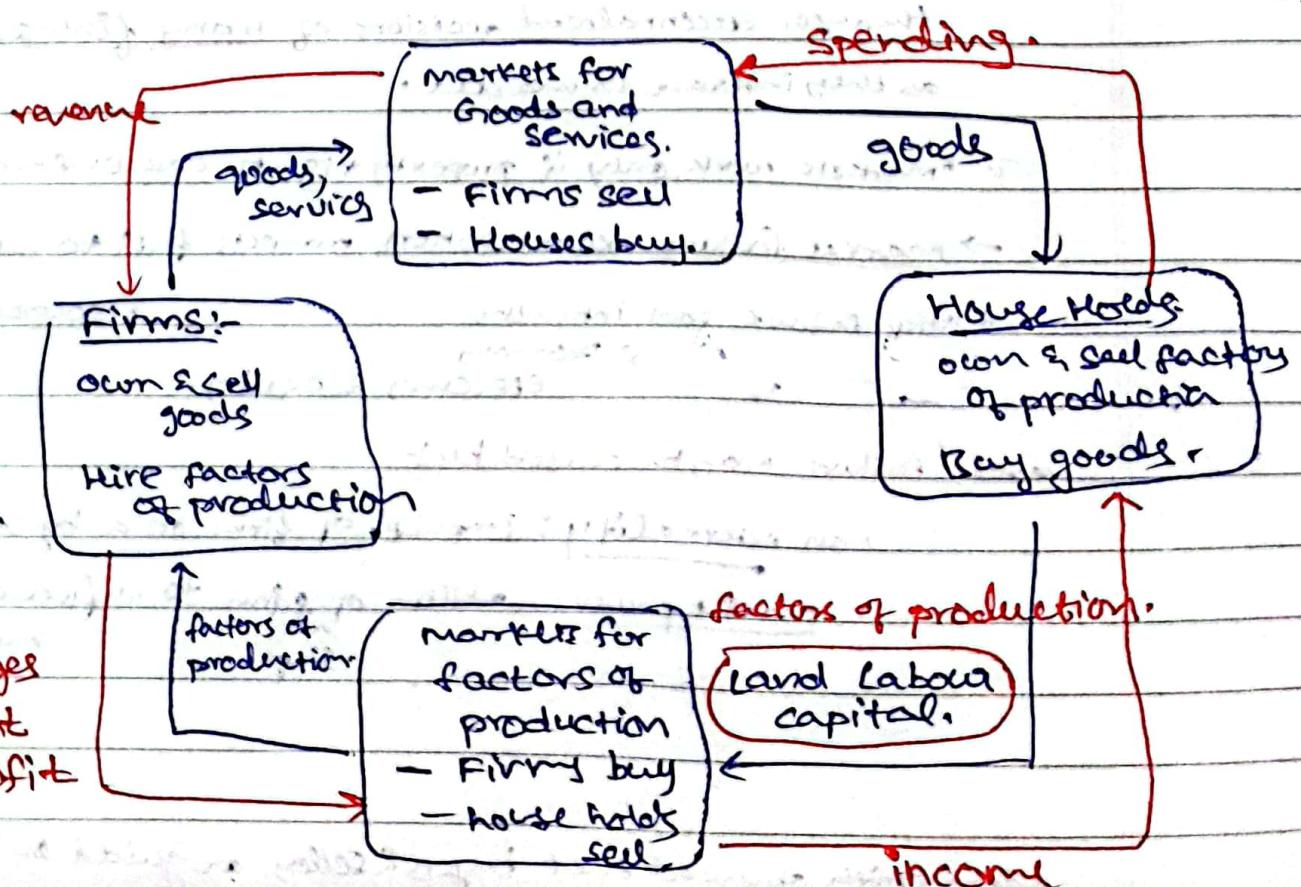
* Two basic economic models are:-

1) Circular flow diagram

2) Production possibilities frontier.

→ Circular flow diagram-

How dollars flow through markets; among firms & households.



Factors of production:-

* Inputs; to produce goods & services.

* Land, Labour Capital

{rent} {wages} {profits}

→ production possibilities frontier:-

carst brushes + acs.

is a graph that shows the combinations of output,

that the economy can possibly produce,

given the available factors of production ①

& the available production technology ②

not possible yet.

leg:
computers
(laptops)

for a fixed 1. production technology
2. production factors;

blades 3000
cars 1000

Production possibility frontier.
of outputs.

concepts depicted:-

- 1) efficiency
- 2) trade-offs.
- 3) opportunity cost
- 4) economic growth.

shift!

Computers.

4K.

3K

1000

production.
maybe technology

improvement

cars

market economy allocates resources through decentralised decisions of many firms.

classmate

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Lec 3:- (A)

Saptarshi
Prasanno
Sir:-

microeconomics focuses on the individual parts of the economy.

demand supply

- How households & firms make decisions.
- How they interact in specific markets.

"All this is observed, theory, more observational"

macroeconomics looks on economy as a whole:-

- Inflation, unemployment, economic growth.
- economy wide phenomenon.

* positive statements
(descriptive)

say, how the world is
- facts.

- increase in minimum wage
will cause decrease in
employment;

scientist

Normative statements
(prescriptive)

say how the world should
be,
- opinions

- the increase in income
is far important than
decrease in employment;

policy advisor.

lec 3B:

- about supply, demand and market equilibrium.

market is a group of sellers & buyers.

Supply & demand refer to their behaviour.

* competitive market is a market where there are a huge number of buying & sellers

so that each has a negligible impact on price.

perfect competition:

- 1) products are the same
- 2) each has no influence.
- 3) buyers & sellers are price takers accept the market price.

monopoly:

- one seller; controls the price.

oligopoly:

- few sellers
- no aggressive competition.

monopolistic competition:

mobiles industry?

• many sellers

- slightly different products
- each sets his own price.

Lec4:

Demand:-

Amount of goods, buyers are willing to buy
and able to buy.

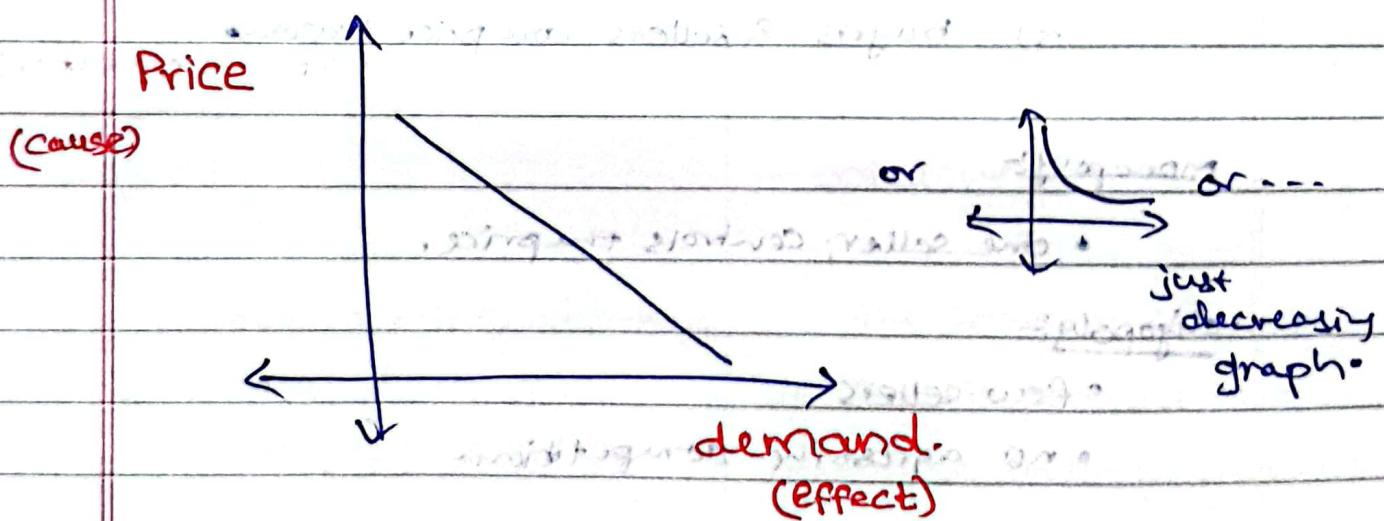
law of demand:-

(product mfg. rate is same anyhow)

law of demand states that; other things equal;
the demand falls when price rises.

demand schedule:-

table showing demand vs price.

demand curve

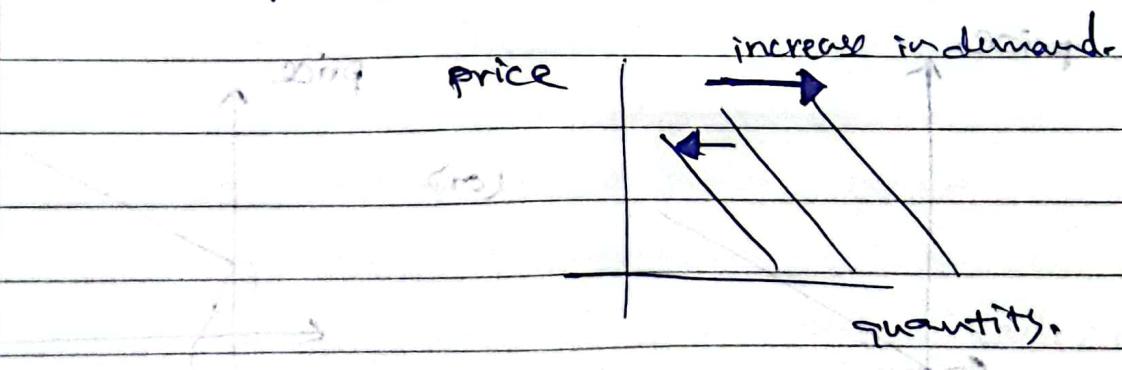
* market demand = Σ individual demands.

→ Shift in demand curves:-

* change in demanded quantity: along the curve movement.

→ the "other things" kept constant in law of demand are:

- consumer income → as income ↑; normal good ↑
↓ as income ↓; inferior good ↓
- price of related goods
- Tastes of the masses
- expectations
- No. of buyers.



- when fall in price of one good; reduces demand of another; its called **substitutes**.
- when fall in price of one good; increases demand of another; its called **complements**.

- * Suppliers have product in excess... classmate
 (excess)
 they just need to decide
 whether to put it to sale or not

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→ SUPPLY:-

- * amount of goods, that sellers are willing & able to sell.

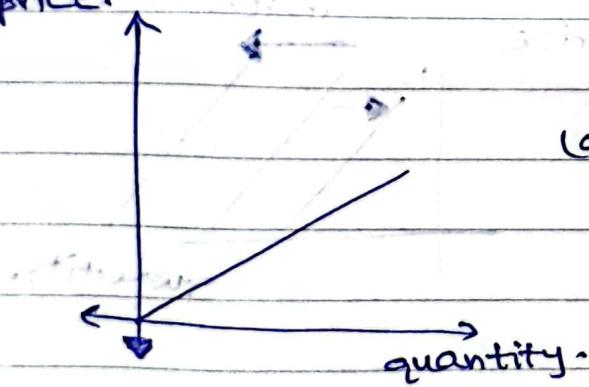
Law of supply:

- other things equal,
 (their mfg rate is same anyhow!)
 the quantity supplied rises, as price rises.

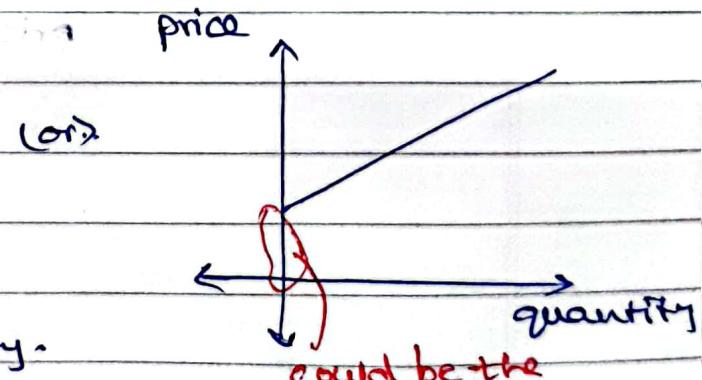
- Supply schedule:-
 table!

- Supply graph:-

price.



(or)



- * market Supply = Σ individual supply.

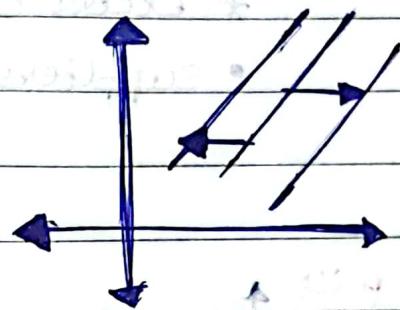
Shift in supply curve → change in Supply.
 movement along curve → change in Quantity Supplied

→ Shift in Supply Curve:-

* The "Other things" are:-

- Input prices
- Technology
- Expectations

- Number of Sellers.!



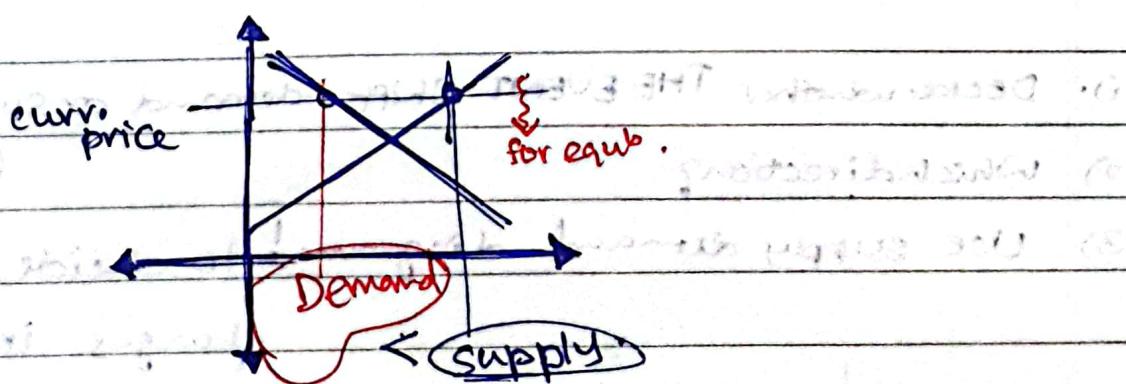
Lec 5:-

→ Equilibrium

price where Demand = Supply.

* Surplus: when price > equib. price.

- Supply is in excess...
- Suppliers lower the price to increase sales.

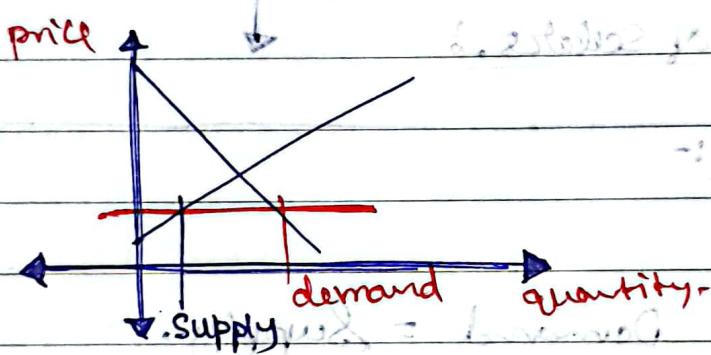


→ Shortage:-

price < equib price

* excess demand.

- Suppliers raise prices to cut down on demand
(or make profit from demand)



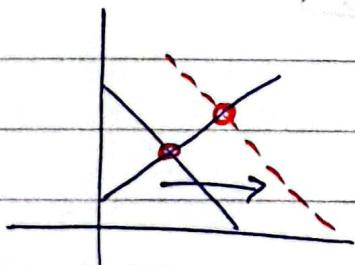
→ law of supply & demand :-

The claim that price goes to equib.

→ Analysing changes in equilibrium:-

- 1) Decide whether THE EVENT shifts demand or supply curve.
- 2) Which direction?
- 3) Use supply demand diagram! to decide

changes in equib price
& quantity



Terms:-

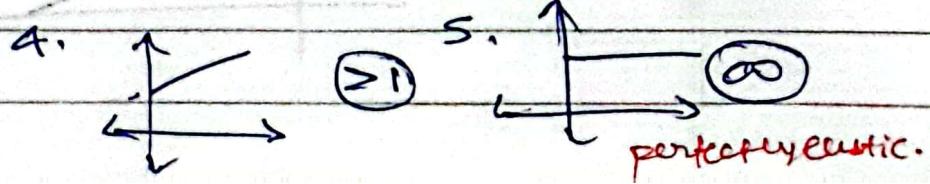
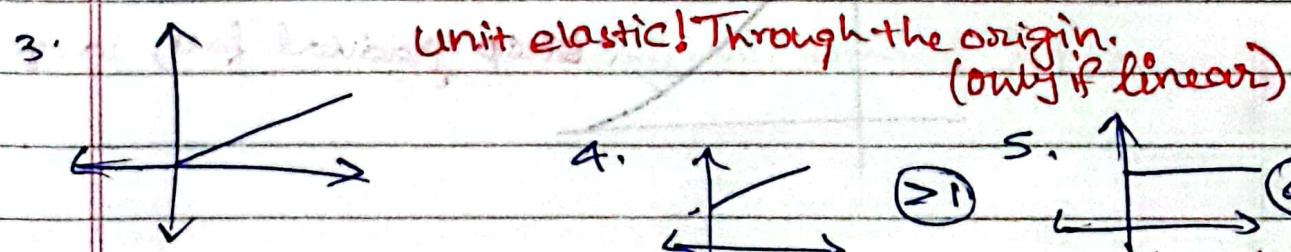
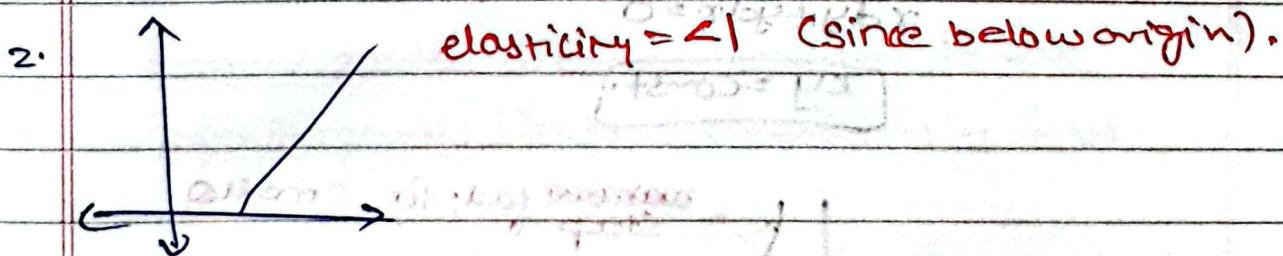
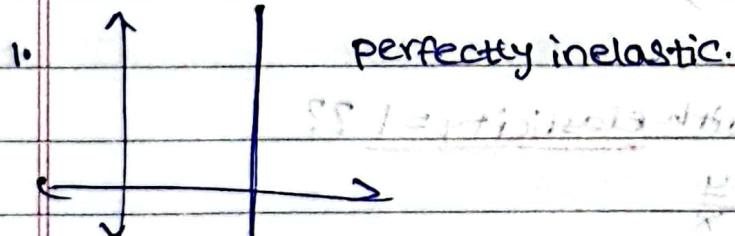
1. change in supply : shift in S curve
2. change in quantity supplied : movement along S.
3. change in demand : shift in demand curve
4. change in quantity demanded : - - -

lec 6:-

elasticity :- price elasticity of supply = $\frac{\% \text{ change in supply}}{\% \text{ change in price}}$

not simple change!

ratio of % Change =
$$\frac{\frac{dx}{x}}{\frac{dy}{y}} = \frac{(dy/x)}{(dy/dx)}$$



Supply is more elastic in the long run.

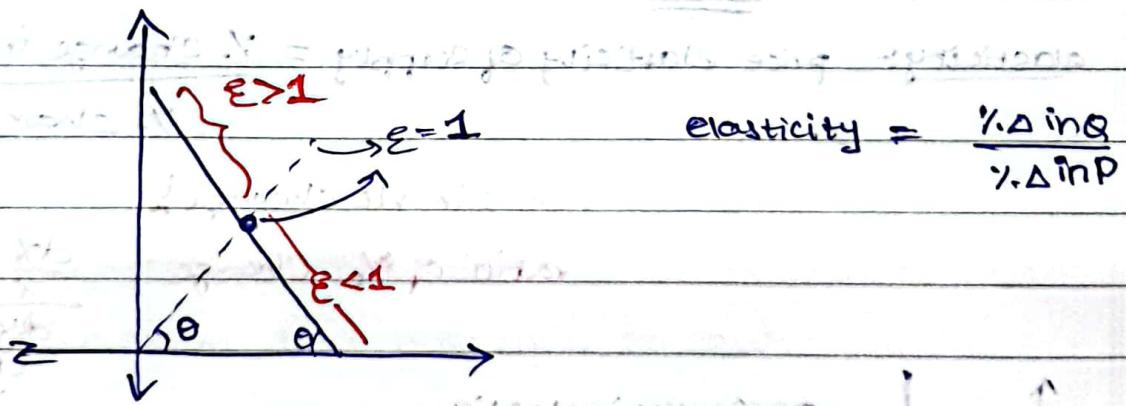
→ demand elasticity

$$\text{midpoint formula} = \frac{\frac{Q_2 - Q_1}{Q_2 + Q_1}}{\frac{P_2 - P_1}{P_2 + P_1}} \quad \left. \begin{array}{l} \text{Quantity \% change} \\ \hline \text{Price \% change} \end{array} \right.$$

$$\frac{P_2 - P_1}{P_2 + P_1} \quad \left. \begin{array}{l} \text{Price \% change} \end{array} \right.$$

* price elasticity of demand is negative

other elasticities also here. income elasticity...



* demand curve; with elasticity = 1 ??

$$\frac{dy}{dx} = -\frac{y}{x}$$

$$xdy + ydx = 0$$

$$xy = \text{const.}$$

steep fall; for small Q

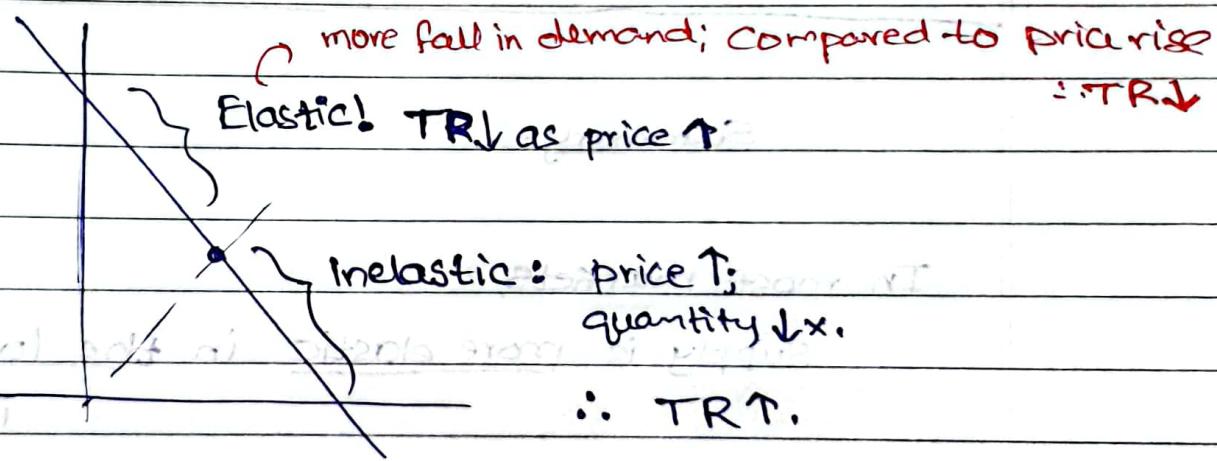
steep gradual fall; large Q

- * Total revenue = Price \times Quantity Sold
 = sales
 = profit + inputs.

$$TR = P \times Q$$

$$m = -1 \text{ in } m \neq 1.$$

- Elasticity & TR along a linear demand curve:-



- * Income elasticity of demand:-

$$= \frac{\% \Delta \text{ in demand}}{\% \Delta \text{ in people's income}} \quad \text{percentage changes!}$$

normal goods: income elasticity is +ve.

inferior goods: income elasticity is -ve.

necessities: inelastic. (demand doesn't differ much)

luxurious goods: elastic. (demand ↑↑).

→ Crossprice elasticity of demand:

A measure of demand of P_1 w.r.t price of P_2 .

if complements: elasticity < 0 .

if substitutes: $\epsilon > 0$.

Summary: AT first

In most markets, standards

Supply is more elastic in the long run than
in the short run.

It depends on various factors

• Production capacity boundaries

amount of labor available

• Capital available and labor costs

• Availability of raw materials

• Government policies and standards of classification

• Cost of labor, capital, energy etc.

classmate

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↳ possible outcomes

↳ sample space

↳ event

↳ equally likely outcomes

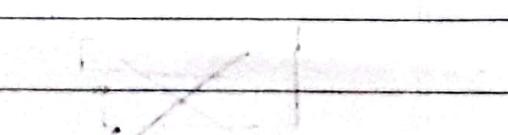
↳ probability

↳ theoretical probability

↳ experimental probability

↳ odds in favor of an event occurring

↳ odds against an event occurring



↳ complementary events

Lec-8:-

→ in a free and open market; market forces establish equilibrium.

* control on prices

) when market price is unfair to buyers (sellers)

Govt. created price ceilings → legal maximum.

& floors.

↳ legal minimum at which

good can be sold

* price ceiling not binding; if set above equil. price;

market operates at equil. price.

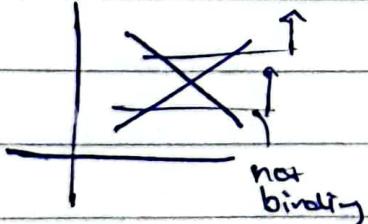


is binding. if < market price.

SHORTAGE.

price flooring! - not binding → if < market price.

binding → if > mp.



lec 9 :-

- government levy taxes to raise revenue for public projects
- How taxation affects buyers and sellers :-

- Taxes discourage market activity
- quantity sold is smaller; when taxes exist.
- Buyers & Sellers share the burden of tax.

Tax incidence:-

is the manner in which burden of tax is shared among buyers & sellers.

- * With taxes, buyer pays more; & seller receives less (in the new equilibrium; wrt old equilibrium). equilibrium = if Fnc. regardless of on whom the tax is levied.

Tax on Buyers

- * The demand curve

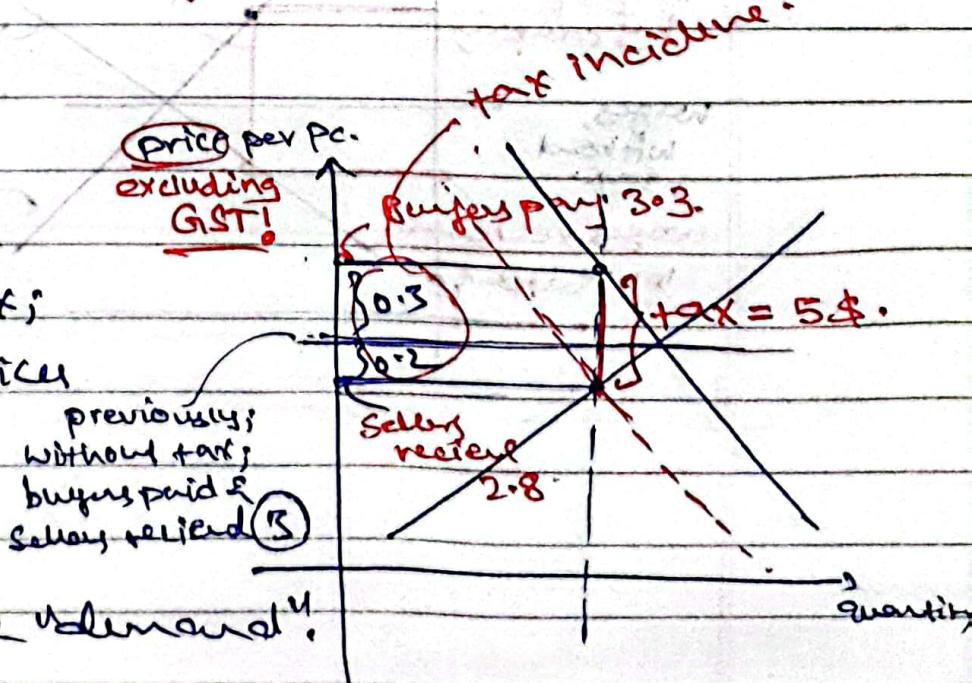
falls by $x = \text{tax}$;

because market price

has to fall; equal to rise in tax;

for customers

to have same demand!



→ old

new

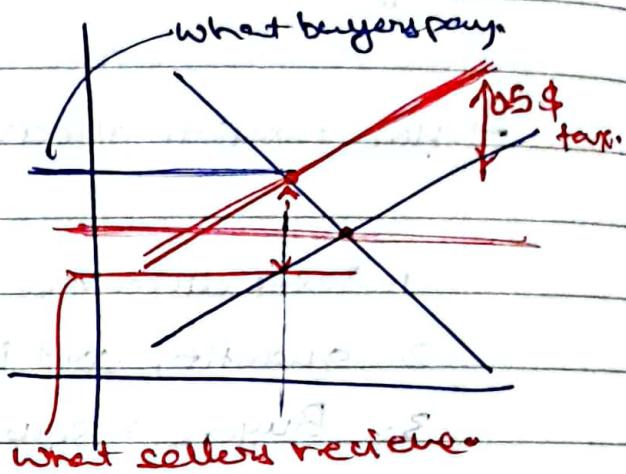
→ tax levied on sellers:-

Sellers need to increase their selling price

aka market price

equal in number to tax, to maintain supply same

as before



Anyways; Buyers pay more than before, Sellers receive less than before before taxes! goddamn it!

→ payroll tax:-

wages paid by company

wages, without tax.

wages received by labour

$\rightarrow E$. tax

labour supply

labour demand

Wages X and Y

paying payroll tax imposed

Wages X

Wages Y

Wages Z

Wages A

Wages B

Wages C

Wages D

Wages E

Wages F

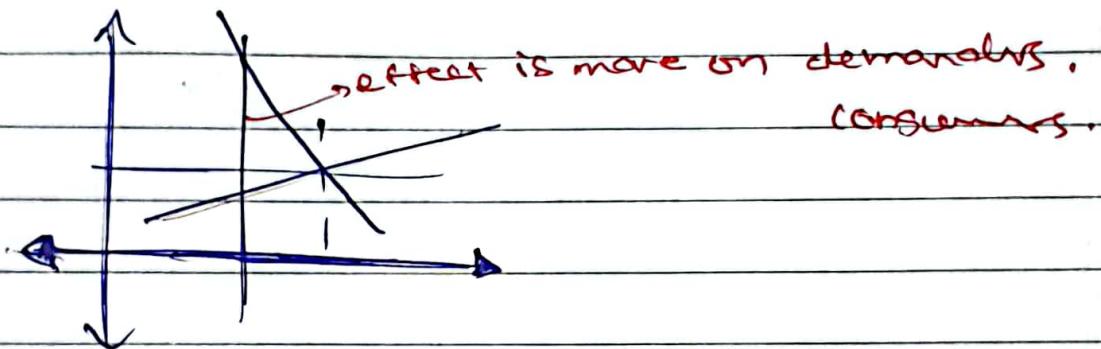
Wages G

Wages H

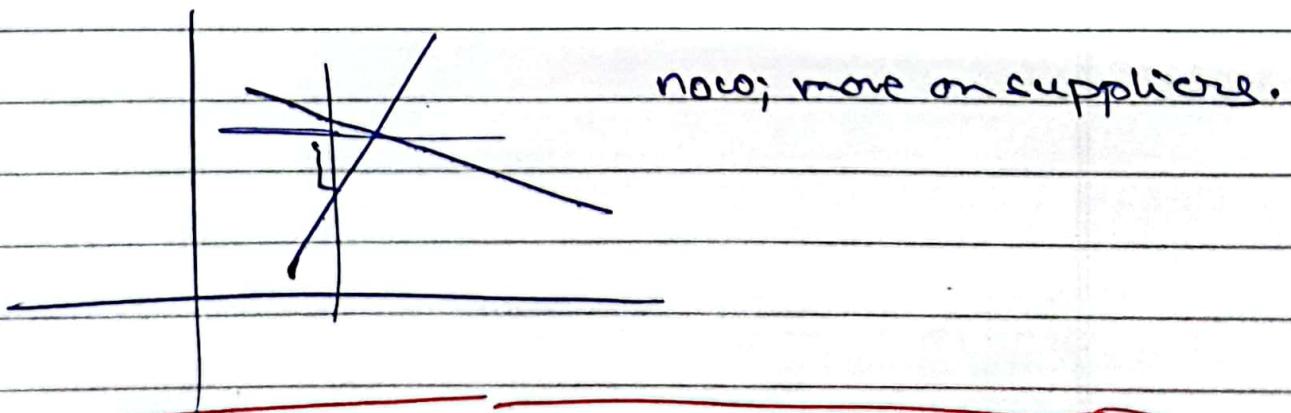
→ what proportion of burden on sellers & buyers :-

depends on elasticity of supply & demand.

a) elastic supply; inelastic demand :-



b) inelastic supply; elastic demand :-



Tax burden is more on the inelastic guy.

Lec-10:-

The costs of production:-

objective of firm: maximize profits.

Hence, sell at a higher price.

Total revenue:-

The amount, a firm receives for the sale of its products

Total cost :-

market value of inputs, a firm uses.

$$\text{Profit} = TR - TC.$$

But, costs as opportunity costs.

* cost of production includes all the opportunity costs

- Explicit costs:- are input costs, that require an outlay of money.

- Implicit costs:- are input costs, that don't require money

OPPORTUNITY COSTS

Some opportunity costs are explicit; classmate

Other date
are implicit

* Economic profit vs Accounting profit.

TR - Implicit
- explicit

TR - explicit.

economists.

total
costs.

not
total costs.

when TR exceeds both implicit & explicit costs;

then firm earns economic profit.

→ Production Function:-

Shows relationship between input of a good vs

quantity produced

output of a good.

VS on firm side.

input kept.

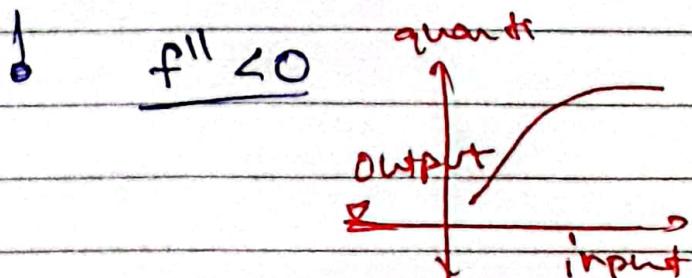
no regard to selling price

* Marginal product:-

edge! increase in output; arising from unit rise in input.

* diminishing marginal product:-

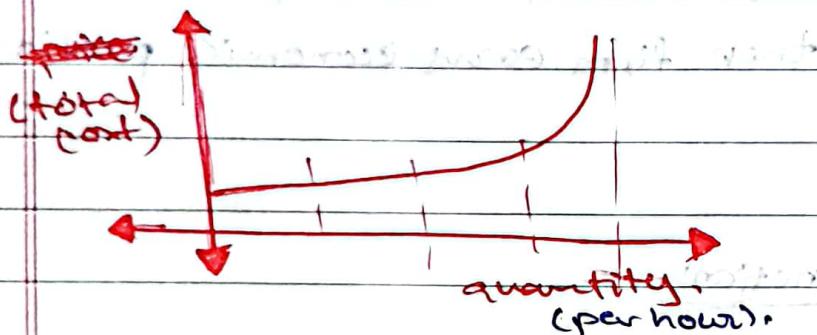
is the property; whereby the marginal product of input decreases as the input quantity increases



~~new; no reln with production function
(I hope)~~

Total-cost-curve:

- * relationship b/w quantity a firm can produce; & its costs; determine pricing decisions.
per piece?
total!



marginal costs (= MC)

measured the increase in total cost with 1↑ in production quantity

How much does it cost, to produce ^{one more} ~~an additional unit?~~ **marginal cost!**

$$MC = \frac{\Delta TC}{\Delta Q}$$

Measurements of costs: Fixed costs
variable costs

- costs of production divided into fixed costs

- variable costs.

Fixed costs: do not vary with quantity of output produced
factory rent.

Variable costs: vary with quantity produced.

Total costs = Total fixed costs + total variable costs

$$TC = TFC + TVC.$$

- Average Costs:

by dividing the firms cost by the quantity of output.

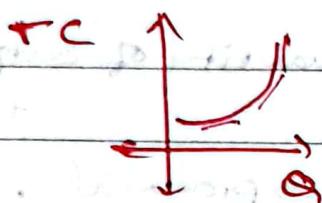
The average cost is the cost of each typical unit of product.

$$ATC = AFC + AVC$$

$$\frac{TC}{Q} = \frac{FC}{Q} + \frac{VC}{Q}$$

→ Cost curves and their shapes

Marginal costs, rises with amount of produced.



≡ Diminishing marginal product.

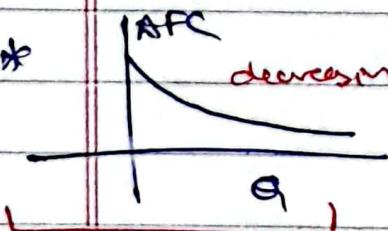
* when $MC < ATC$; ATC is falling.

* when $MC > ATC$; ATC is rising.

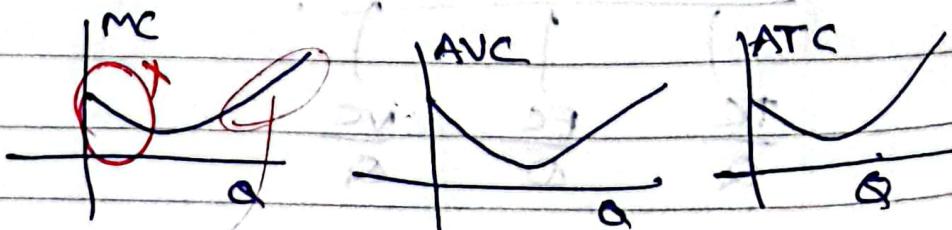
$$\frac{df}{dQ} > \frac{f}{Q}$$

* The marginal cost curve; crosses the ATC curve at the efficient scale.

↓ minimizes ATC !



Short-run concept.



law of diminishing marginal product.

marginal cost curve; crosses the

ATC curve; at the

min. of ATC curve.

efficient Scale of firm.

- * A firm's long run cost curves, differ from sunk cost curve, bcoz all are variable.

minimize ATC
↓
maximize profit
way.

economics of scale:-

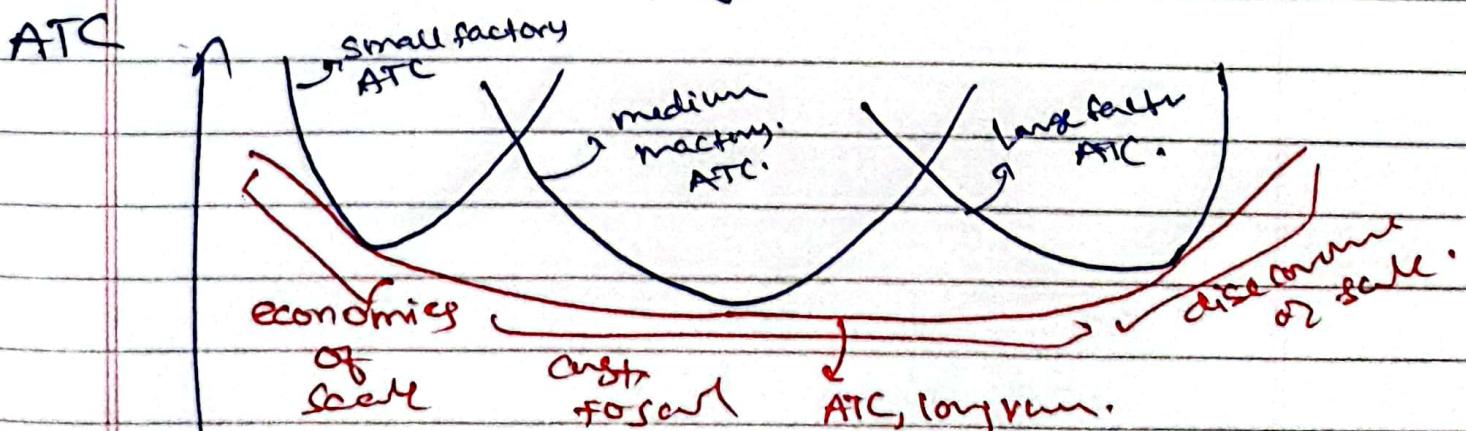
when longrun ATC falls as the quantity rises.

diseconomies of scale:-

when longrun ATC rises as Q.T.

constant returns of scale:-

Stay same.



quantities
of cons.

classmate

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Consumers/ Producers/Efficiency of markets.

- does equilibrium maximize welfare of everyone.

→ welfare economics ↗

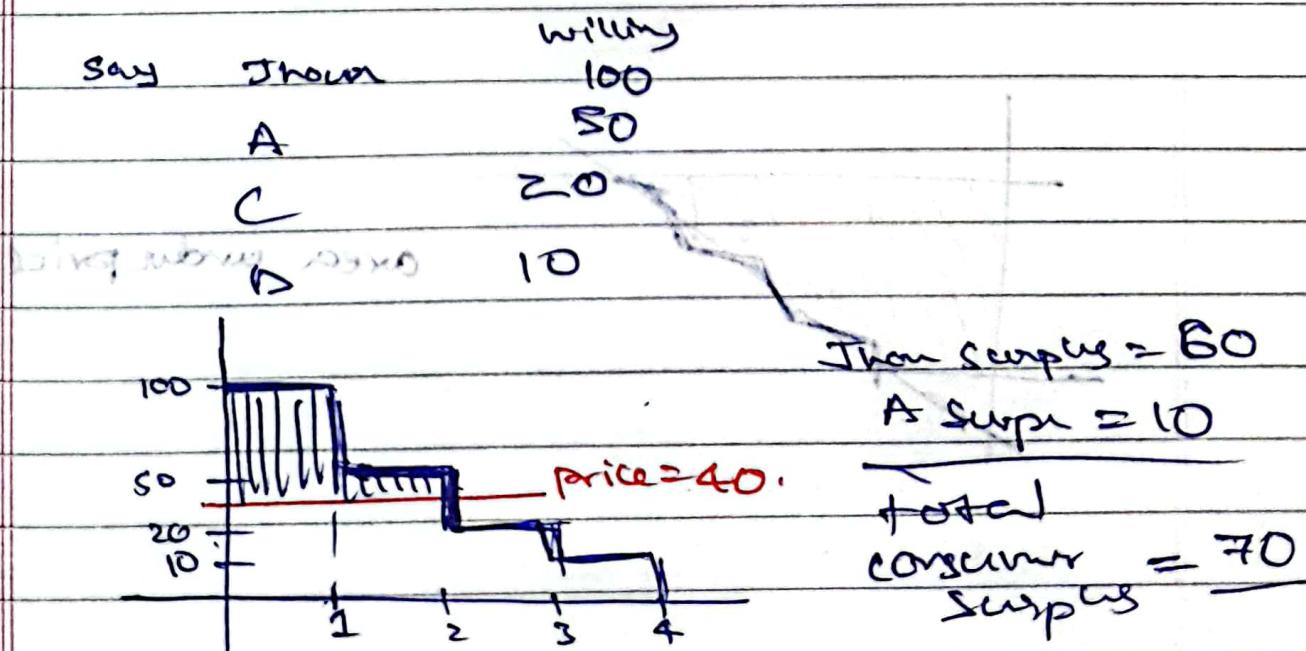
How allocation of resource affects economic welfare ↗

* equilibrium → perfect competition exist.

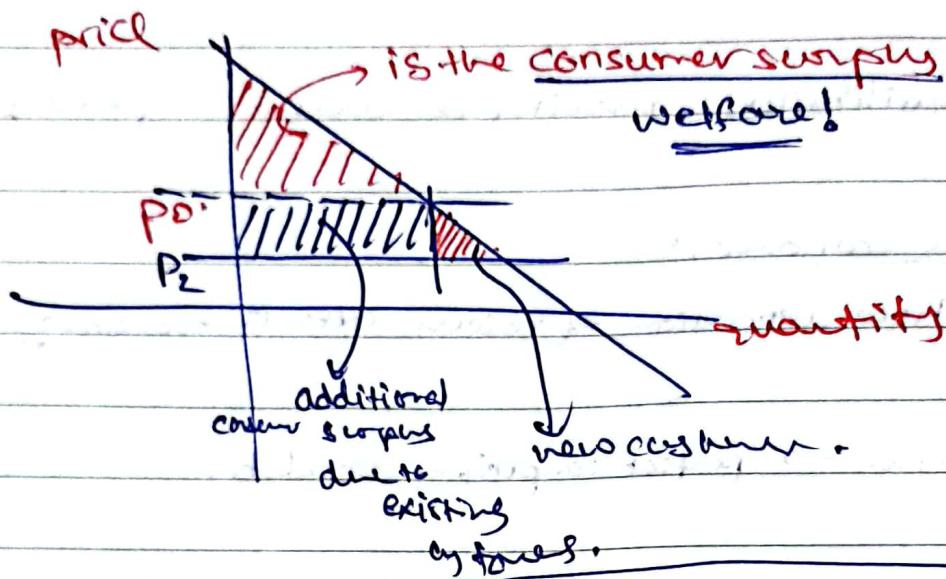
consumer surplus: economic welfare from buyer's side.

producer surplus: economic welfare from producers side

↳ (buyers willingness - buyer's actual payment.)



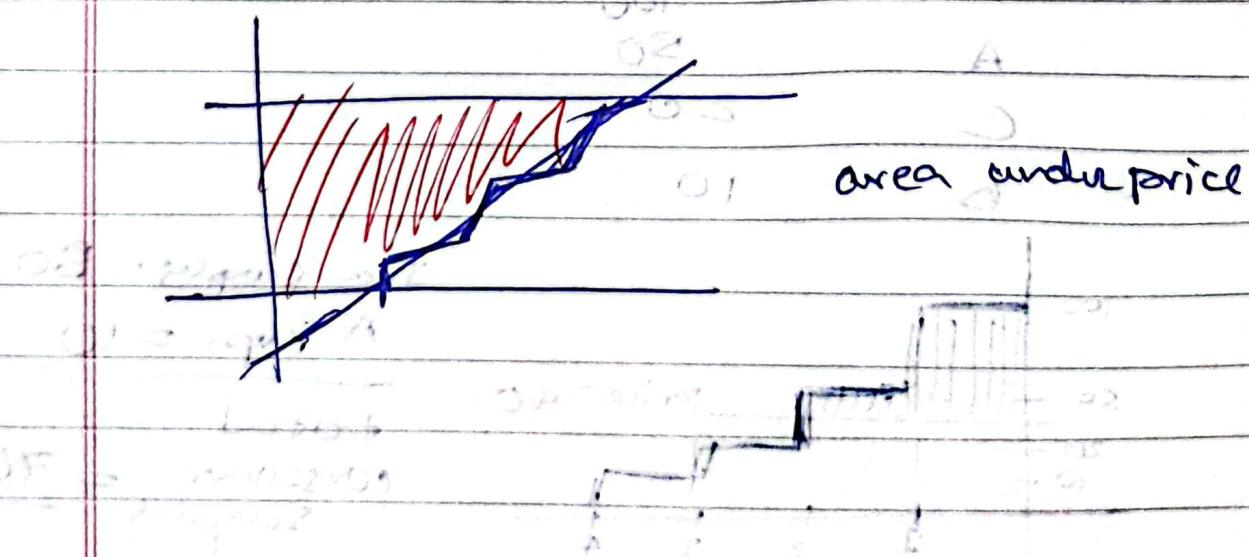
[Area below the demand curve; Ex above the price; measures the consumer surplus.]



producer surplus:

is amount a seller is paid - Seller's cost.

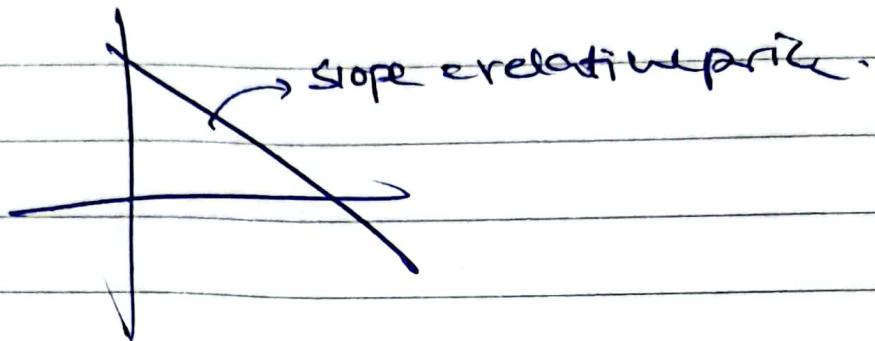
Benefits to selling party:



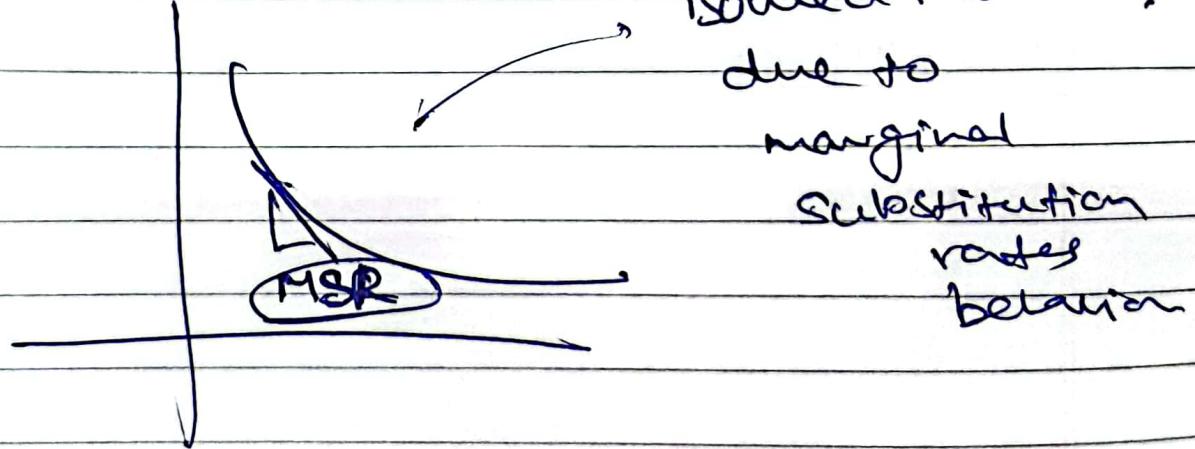
• area under price = producer surplus

Consumer theory :-

1) Budget constraint :



2) Indifference curves



* optimal choice:

Indifference Curve tangent to
Budget constraint.

$MRS = \text{Relative price}$.

Consumer valuation = market valuation.
his indifference curve

on market!

price \rightarrow Budget constraint turns outward

- price change has two effects on consumption:-
1. An income effect
 2. Substitution effect.

\rightarrow Substitution effect:-

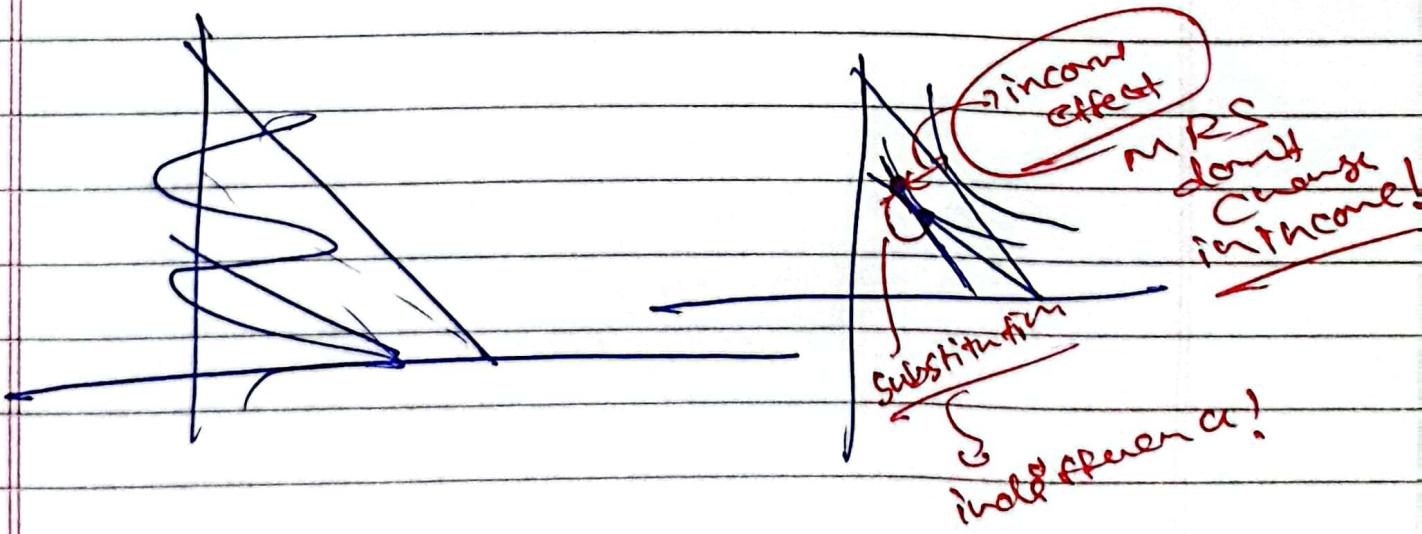
is the change in consumption; that results when a price change moves the customer along an indifference curve; to a point with different

CSR -

(or diff'd market value)

\rightarrow Income effect:-

when consumer moves to a higher or lower indifference curve.



→ National Income Accounting:-

GDP:- Gross Domestic Product

total MARKET VALUE of all final goods and services
produced by factors of production located within
a nation's borders.

* GDP measures market value of final output.