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MD IFTAKHAR KABIR SAKUR

25th BATCH

COMPUTER AND COMMUNICATION ENGINEERING

International Islamic University Chittagong

COURSE CODE: Econ-3601

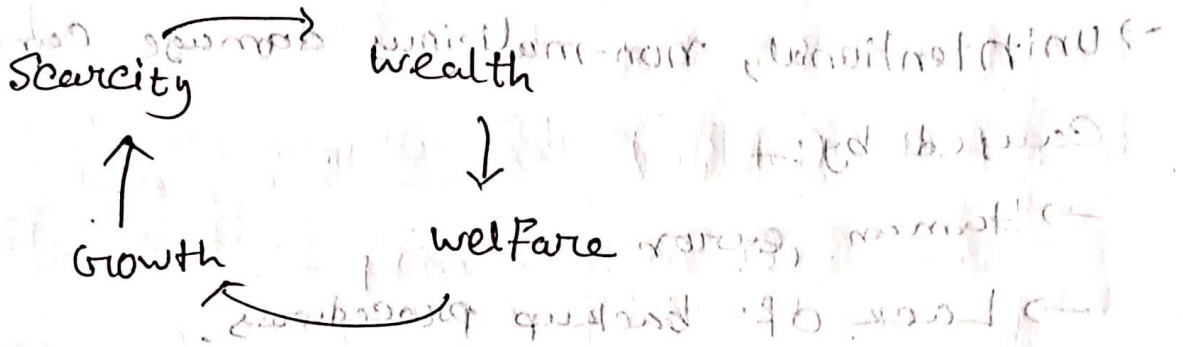
COURSE TITLE: Economics

COURSE TEACHER:

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① Q The origin and scope of economics :-



Q Wealth :- (Goods & services people can use to satisfy their wants & needs)

The father of economics, Adam Smith says:-

→ A science which studies nature, causes and growth of the wealth of the nations.

⇒ Criticism:-

No attention was paid to man for whom wealth is really meant.

Q Welfare:-

Alfred Marshall said,

Study of mankind in the ordinary business of life, it examines that part of individual and social action which is most closely connected with the use of the material requisites of well being. Thus

it is, on the one side a study of wealth; and on the other ~~side~~ and more important side the study of man. Economics is a study of welfare refers to the well-being of individuals and society as a whole. Economics studies help how economic policies & institutions affect welfare outcomes, such as poverty, inequality, ~~but~~ health etc.

Scarcity: Refers to the limited availability of resources

relative to the unlimited wants & needs of individuals and society. Economics studies how people make their choices under conditions of scarcity. It is the science which studies human behavior as a relationship between ends & scarce means which have alternative uses.

Four characteristics

- Man has unlimited wants or ~~ends~~ needs
- The means or resources to satisfy them are limited
- Resources are not specific & have alternate uses.
- Man has therefore to choose between wants.

Growth:-

Refers to increase in production & consumption of goods and services over time.

Economic studies how economic growth is created and sustained, including the role of innovation, investment, education and institution etc.

(16)

Factor Markets:- Refers to the market where

firms purchase the inputs to produce & services.

The inputs are commonly referred to as factors of production and include labor, capital, land and entrepreneurship. The price paid for these inputs are called as the factor price.

Commodity Markets:-

where finished goods & commodities are bought & sold. Here the trade happens. The product which are used to sell & bought in this market are call as commodities.

The price of this market is called market price.

The circular flow of economic activity involves the interdependence between factor & commodity markets. In production market we sell & bought these goods in commodity markets.

We use to develop or do the production of our products in factor markets. And sell those goods in the commodity markets. And the revenue that we get from here used to pay for the inputs purchased in the factor market, such as labor, capital, land & entrepreneurship.

In this way, the factor market & commodity markets are connected through the circular

flow of economic activity. The revenue generated from selling goods & services in the commodity market flows back to the factor market as

factor markets

1(c)

Difference between Micro & Macro Economics

Micro Economics	Macro Economics
<p><u>1</u> The production/output is in individuals industries & businesses.</p> <p><u>Ex</u>:- How many cars How many offices</p>	<p><u>1</u> Counted as national production/output.</p> <p><u>Ex</u>:- How much steel How many offices How many cars</p>
<p><u>2</u> Prices of individual goods & services.</p> <p><u>Ex</u>:- price of medical care price of food price.</p>	<p><u>2</u> Aggregate price level:</p> <p>→ Consumer price → Rate of inflation</p>
<p><u>3</u> Distribution of income & wealth:</p> <p><u>Ex</u>:- wages in the auto industry → Minimum wages</p>	<p><u>3</u> National income total wages & salaries</p> <p><u>Ex</u>:- Total corporate profits</p>
<p><u>4</u> Employment by individual businesses & industries</p> <p><u>Ex</u>:- Jobs in the steel industry → Number of employees in a firm</p>	<p><u>4</u> Employment & unemployment in the economy:-</p> <p>→ Total number of jobs → Unemployment rate.</p>

Three basic factors are land, labor & capital

Land:- Includes all natural resources (water, air, minerals, forests etc.) these are used in production process.

→ Also includes physical & itself. (Farms, buildings etc)

Example:-

→ Farmer used to cultivate crops in land

→ Oil company extracts oil from the ground

2) Labor:- Refers to human efforts that is required to produce goods & services.

Include physical & mental effort, such as work done by factory workers

Ex:- A teacher who delivers lecture is also using ~~capital~~ labor as factor of production

3) Capital:- Refers to the tools, machinery & other equipment. From hammers & drills to the

Computers & robots all are capital.

It also includes buildings & other infrastructure in infrastructure used in the production process.

These three factors of production are used to create goods and services that are consumed by individuals & businesses. The availability & quality of these factors of production can influence the overall level of economic growth & development in a country.

2(b)

In economics, the production function is the process relationship between the inputs used in the production process & the resulting output of goods & services.

Short-run production function:

- At least one input is capital, fixed.
- Other inputs such as labor and raw materials can be varied.

→ Firms can't adjust their capital stock quickly.

→ As a result, the output level can only be increased or decreased by adjusting the variable inputs.

Example:

Suppose a factory has a fixed number of capital such as machine and a variable amount of labor. So the factory can increase their output by adding more labor, but they can't increase it by adding more machine.

Long-run production function:

→ All inputs including capital varies.

→ In the long run firms can adjust their input to any level they desire.

→ There is no fixed factors.

Example: A firm that wants to increase its output level in the long run can add more machine & and more labor, as they want.

(2c)

Properties of Isoquants:-

1) Downward Slopping

- > Slopes downward from left to right
- > Indicates one input increases.
- > Other input must decrease to maintain the same level of output.
- > Because ~~the~~ inputs are substitutable to some degree.
- > Increase in one input can partially ~~comp~~ decrease in another point.

2) Convex to the origin:-

- > Shape is convex to the origin
- > That means the curve becomes flatter as it moves towards the origin.
- > That is when we go on increasing the ~~quant~~ input say Labor by reducing the quantity of another input say capital, we see less unit of capital are sacrificed for the

addition of labor.

$Q = f(L, K)$

3) Can't intersect:-

- Two isoquants can't intersect each other.
- If it happens that means the combination of inputs is producing two different level of output, which is impossible.

4) Higher Isoquant represent a higher level of ~~input~~ output:-

- A higher level isoquant represents a higher level of output.
- And ^{lower one} lower level output.

→ This is because each isoquant represents a different level of output,

- And higher level requires more inputs

5) Smooth and Continuous:-

- Small changes in inputs result in small changes in output.

Autumn-2020

1(a)

Ans:- 1(b) → Autumn-2018

1(b)

1(c)

Ans:- Autumn-2018 (1(c))

1(b)

Engineers Study economics:

- To understand the market demand.
- To understand the economic condition so that for a project can be built like that.
- To manage any project without any economic or financial problem.
- To design a project, an Engineer need to consider the environmental impact.
- Government regulation & policies.

2(a)

There are several factors which can influence demand & supply of a product:-

1) Price:- Most important factors.

→ If price decreases, the demand of the product increases.

→ If price increases, the demand of the product decreases.

2) Income:-

→ Consumers also has a significant impact on demand.

→ Income of customers increases, the demand for goods also increases.

→ For certain goods (such as inferior product) may get decreased.

⇒

3) Consumers preference & taste:-

→ Consumers develop a preference for a particular product, the demand for the product increases.

→ If consumers change tastes & become less interest

in particular product, the demand for that product may decrease.

4) Availability & price of substitute goods:-

→ If there are many substitutive goods available at lower price, the demand for particular product may decrease.

5) Change in population:-

→ If population grows, the demand for the most goods & services will increase.

2(b)

3(a)

Return to scale is the thing when ~~we~~ change in output that results from a proportional increase of inputs. That means, when a firm increases all of the factors or inputs equally then the output also increases equally.

Decreasing return to scale:

It means when a firm increases all the inputs in equal portion, but the output increases by a smaller portion.

Negative return to scale

when a firm increases all the inputs in equal portion, but output decreases.

For example:-

A firm may face this when its administrative costs increases as it grows larger.

which limits the firm's ability to increase output.

(3(b))

A production indifference curve is a graphical representation that shows various combinations of two or more inputs.

In the case of a producer, the PIC shows the combinations of labor & capital that can produce a given level of output, with each combination providing the same level of satisfaction. The slope of PIC represents the rate at which the producer is willing to substitute one input for another while keeping the output constant.

It is the point where producers achieve highest level of satisfaction or profit, given the prices of ~~less~~ labor and capital. Here, the slope of the PIC is equal to the ratio of the prices of labor & capital.

To reach producer's equilibrium the producer must find the combination of inputs that maximizes the profit. And it is

done by comparing the marginal revenue product (MRP) of each input with its price.

IF the MRP of the labor is higher than its price, the producer should hire more labor; IF the MRP of capital is higher than its price, the producer should invest more in capital.

By adjusting the amount of labor & capital used in production until the MRP of each input is equal to its price, the producer can achieve the highest level of profit.

Price Elasticity of Demand

→ Government (tax) will raise price (tax)

→ will raise price (tax)

$$\rightarrow E_D = \frac{\% \text{ change in quantity}}{\% \text{ change in price}}$$

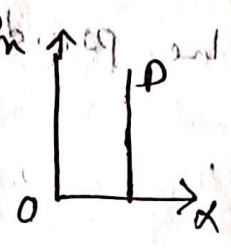
% change in price

PdP

PdP - 2.1

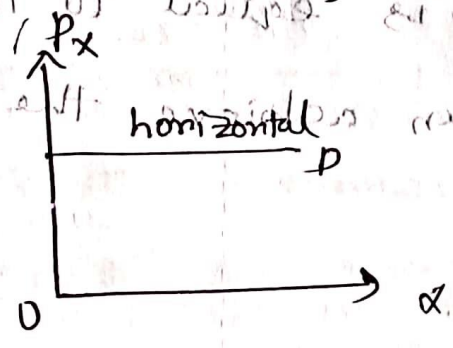
Classification of elasticity (According to the size)

1. perfectly inelastic ($E_d = 0$)



2. Inelastic ($E_d < 1$)

3. perfectly elastic ($E_d = \infty$)



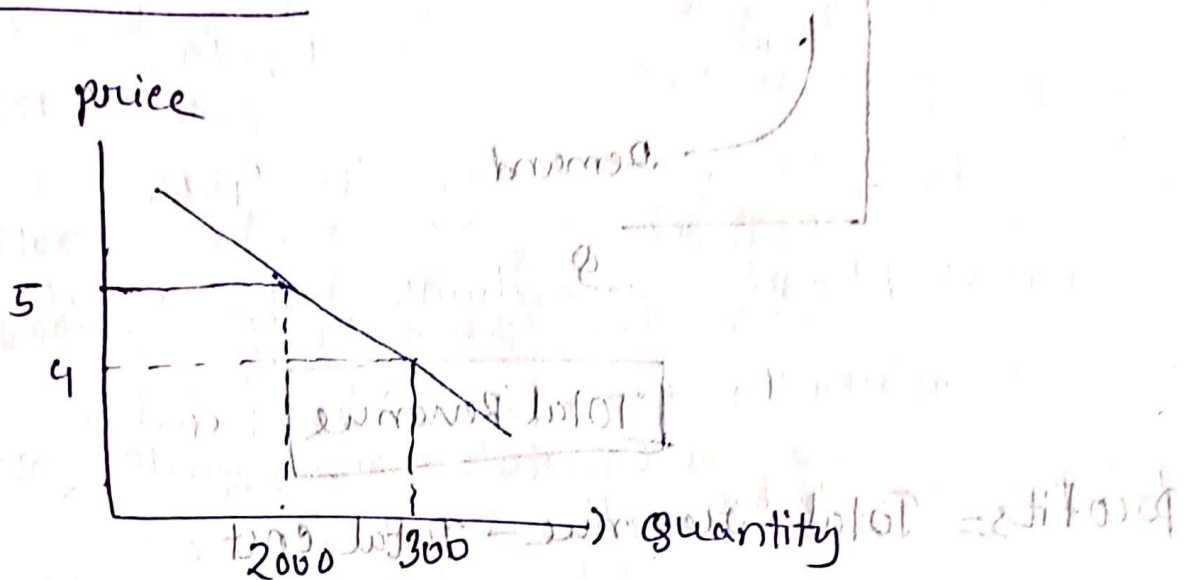
Price Elasticity of Demand :-

→ Consumer के लिए कितना अधिक मूल्य में price कम

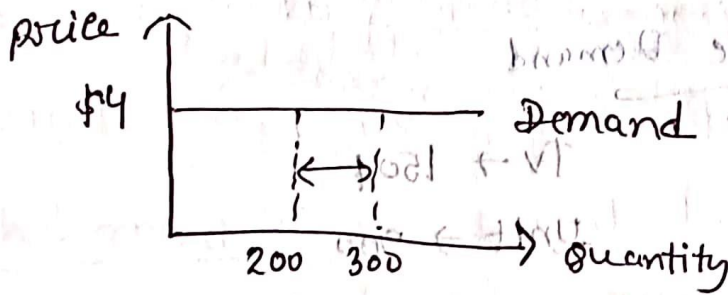
→ कम कितना मूल्य में price कम।

$$\rightarrow E_d = \frac{\% \text{ Change in demand}}{\% \text{ change in price}}$$

☐ Elastic Demand:-



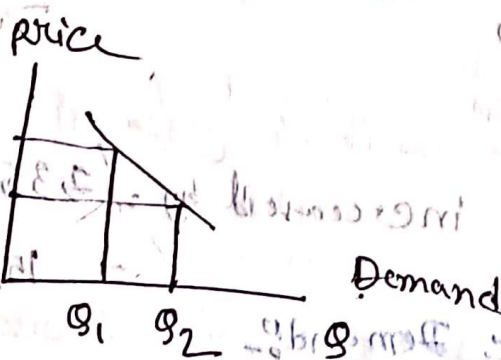
☐ Perfectly Elastic Demand:-



$E = \infty$

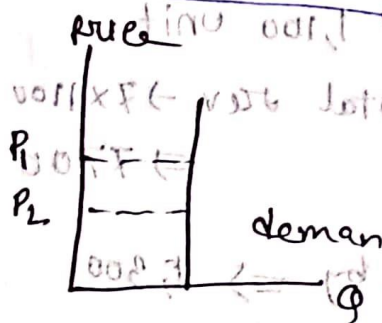
☐ Inelastic Demand:-

$E < 1$



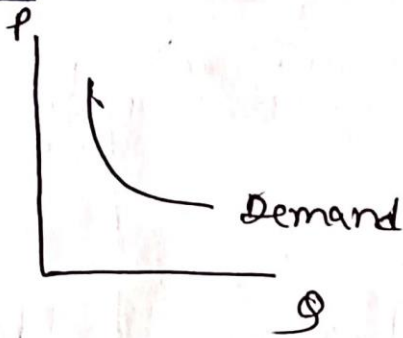
$E < 0$

☐ Perfectly inelastic Demand:-



$E = 0$

Unit elasticity



Total Revenue

Profits = Total Revenue - Total cost

Total Revenue = Price * Quantity

Total Revenue elastic Demand

TVs → 200 \$

Unit → 600

TV → 150 \$

Unit → 900

∴ Total Rev = 200 × 600

= 120,000

= 120,000

∴ Total Revenue = 150 × 900

= 135,000

∴ Revenue increased by = (2,35,000 - 120,000)

= 15,000

Total rev. & inelastic Demand

→ 9 \$

→ 1,000 unit

Total rev. ⇒ 9 × 1000

= 9000

→ 7 \$

→ 1,100 unit

Total rev. → 7 × 1100

= 7700

∴ Revenue decreased by ⇒ 1,300

Total Rev. & unitary elastic

→ 6\$ price of product
→ 1,000 → ticket
→ 5\$ price of product
→ 1,200 → other product

$6 \times 1000 = 6000$
 $5 \times 1200 = 6000$

→ No change in total revenue

No, change in total revenue

Price elasticity of supply

$$E_s = \frac{\% \text{ Change in quantity supplied}}{\% \text{ Change in price}}$$

The market period

→ occurs when a change happens in market

Short run

→ Entire industry is fixed

Long run

→ Longer period for firms to adjust their plant sizes

Cross Elasticity of Demand:-

→ purchasing one product change the price of other product.

Substitutes:- Sales of x move in the same direction as a change in the price of y then x and y are substitute.

Complimentary good.

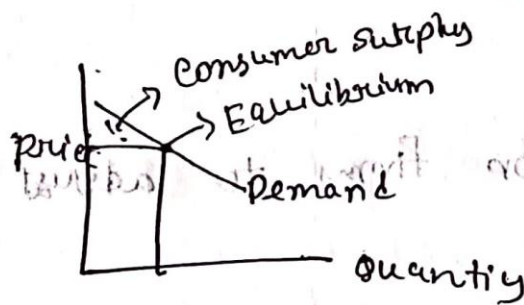
An increase in the price of one decreases the demand for the other.

Independent good:-

Two products are unrelated to each other.

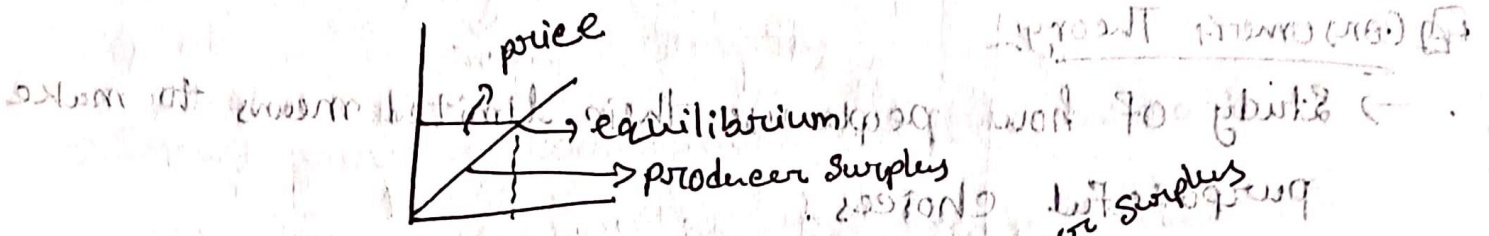
Consumer Surplus

Difference between maximum price a consumer willing to pay for a product & the actual price.

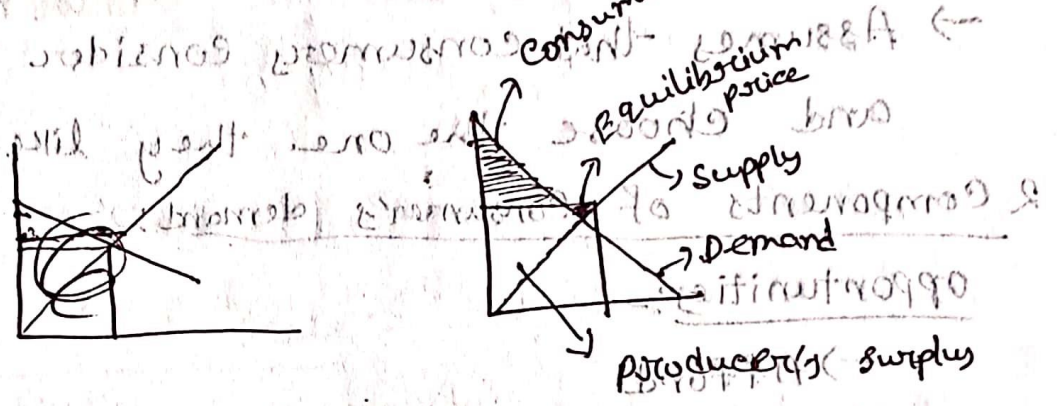


producer surplus

11/10/20



Efficiency



Autumn-20

(b)

$$D: \frac{12 - P}{0.5} = Q_D$$

$$S: \frac{P}{0.1} = Q_S$$

$$\frac{12 - P}{0.5} = \frac{P}{0.1}$$

$$0.1 \times 12 = 0.1P = 0.5P$$

$$\Rightarrow 1.2 = 0.5 + 0.1P$$

$$\Rightarrow 1.2 - 0.5 = 0.1P$$

$$\therefore P = 2 \text{ (equilibrium point)}$$

Equilibrium schedule
value of Q_D, Q_S

Consumer's Theory

→ Study of how people use their limited means to make purposeful choices.

→ Assumes that consumers consider the alternatives and choose the one they like best.

2 Components of Consumer's demand:

opportunities:-

→ Afford

→ Consumption possibilities

→ Budget constraint

Preferences:-

→ Consumer like more

→ Consumer good more like more

Budget constraint:-

Consumer's purchase opportunity

Utility & preferences:-

The way economists represent preferences

Indifference curves:-

properties:-

→ Should not slope up

→ Can't cross with each other

→ Better bundles are to the Northeast

→ Convex to the origin.

ISOquant

Same Quantity

→ Shows various combinations of two variable inputs resulting in the same level of output.

Returns to Scale

Increasing returns to scale:-

Proportional increase in every input yields a more than proportional increase in output.

Constant returns to scale:-

A ~~pro~~ proportional increase in every input

yields an equal proportional increase in output.

Decreasing returns to scale:-

A proportional increase in every input yields a less than proportional increase in output.

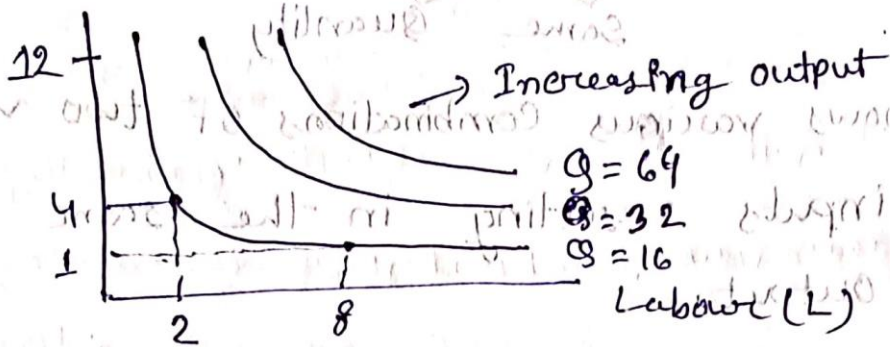
Importance of it:-

If a firm is characterized by increasing return to scale that means there is a tendency for expanding the size of the firm.

If decreasing one then the firm will have a tendency to get decreased.

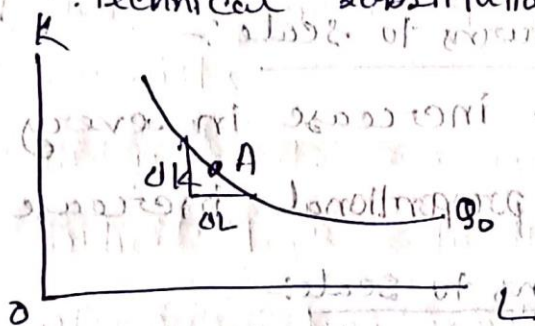
In case of industries with constant returns to scale, all firms would survive equally well.

⊗ Isoquant Map For the production function $Q = 2KL$



⊗ The Marginal Rate of

Technical Substitution



Question Solve

Autumn - 2021

1(A) Viewpoint through scarcity:

Refers to the limited availability of resources

relative to unlimited human wants and needs.

Because of these individuals, governments, firms, need make choices.

In economics it is studied that how individual ~~is~~ ^{make} making decision, about the scarce resources. It also involves analyzing how people and institutions use their resources to

achieve their goals

The In lens of scarcity it is a central concept in economic analysis, as it provides framework for understanding that choices of individuals. Like, in a world of scarce resources anyone must choose how to allocate their time & money between different production & services. Businesses must decide how to allocate their resources between different methods, products and markets. Governments must decide how to allocate their resources between different public goods & services.

Matter of economics:

Economics is a social science that studies how individuals, businesses, governments and societies allocate scarce resources to satisfy their limited wants & needs.

Two types:

Microeconomics: Concerned with the behavior of individual consumers, firms & markets.

Some key topics that are studied here are supply and demand, market structures, consumer behavior.

Macroeconomics: Concerned with the performance of the entire economy. Key topics that are included here are: National income accounting, Monetary policy.

International trade

1(c)

Significance of economics:

→ Resource allocation: Helps in allocation the limited resources by individuals, businesses & governments

→ Understanding Human Behavior:

What the consumer likes is better known to a economist

→ Economic policy: Govt. can use economic analysis and take initial steps to the society, such as, unemployment, promoting growth and stabilizing inflation.

→ International Trade: Economics helps in trade flow, trade agreements

→ Income distribution: Income inequality, economists can help finding out a solution.

→ Environmental Sustainability:

Study climate change, natural resource depletion;

2(a)

Production: Refers to the conversion of inputs into outputs or goods. Used to satisfy human wants and needs.

Production Function:- Mathematical relationship that shows the maximum amount of output from a given inputs. It is an important concept in economics because it helps businesses & policymakers understand how changes in the input affect output.

2(b)

Decreasing return to scale

(उत्पत्ति उत्पत्ति)

Negative return to scale

When a proportional increase in all inputs leads to a decrease in output, the rate of output growth is negative, which indicates that the firm is experiencing diminishing (उत्पत्ति) return to its inputs.

2(c)

Isoquant curve & how to reach at the producer's equilibrium

Isoquant:- A graphical representation of all possible combinations.

producer's equilibrium refers to the combination of inputs used which are used to produce product.

To reach:-

1) plot the isoquant curve:-

2) Determine the isocost line: $P_s = 2q + 20$ $P_d = -q + 200$

3) Find the point of tangency

4) Repeat the process if input prices are given

3(a)

$$P_s = 2q + 20$$

$$P_d = -q + 200$$

$$\Rightarrow q = \frac{P_s - 20}{2} \Rightarrow q = P_d - 20$$

$$\text{Hence, } \frac{P_s - 20}{2} = P_d - 20$$

$$\Rightarrow P_s - 20 = 2P_d - 40$$

$$\Rightarrow 2q + 20 = -q + 200$$

$$\Rightarrow 3q = 180$$

$$\Rightarrow q = 60 \quad (\text{Equilibrium point}) \quad P_s = 140 \quad P_d = 140$$

Let $q = 50$

$$P_s = 120$$

$$P_d = 150$$

Let $q = 40$

$$P_s = 100$$

$$P_d = 160$$

Let $q = 30$

$$P_s = 80$$

$$P_d = 170$$

Let $q = 70$

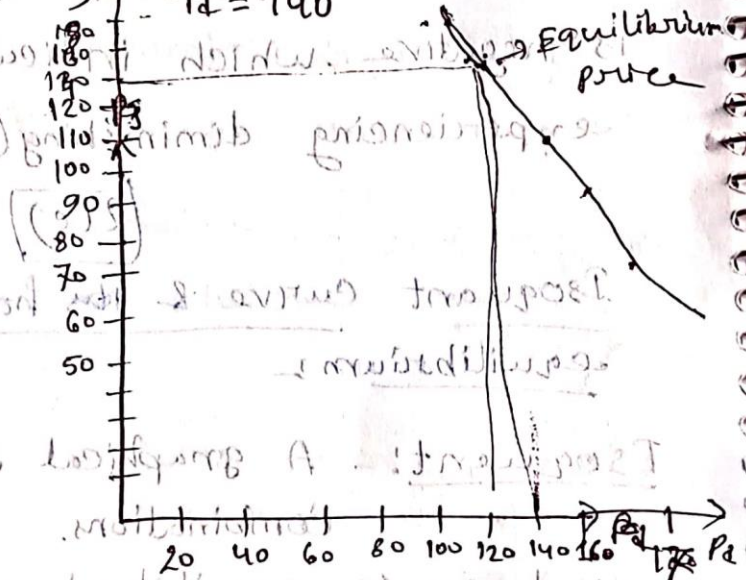
$$P_s = 160$$

$$P_d = 130$$

Let $q = 80$

$$P_s = 180$$

$$P_d = 120$$





**KEEP
CALM
ITS TIME FOR THE
FINAL
EXAM**

| FINAL |

| ECONOMICS |

| Segment - 4 |

| Cost & market Structure |

Different Measures of cost:

Total Cost (TC) = FC + VC

FC = Fixed Cost
(Don't vary with output. Only are present in the short run.)

VC = variable cost. Result from different levels of fixed factors.

Q	FC	VC	TC
0	100	0	100
1	100	20	120
2	100	40	140
3	100	60	160
4	100	80	180
5	100	100	200

Cost Formulas:

$TC = FC + VC$

$TC/Q = FC/Q + VC/Q$ [Dividing by Q] cost

$\Rightarrow ATC = AFC + AVC$ [ATC = Average Total Cost
AFC = Average Fixed Cost
AVC = Average variable cost]

Marginal cost:

Additional cost of producing one more units of output. Slope of TC

$MC = \Delta TC / \Delta Q$

ECONOMICS

Marginal & average costs Revisited:-

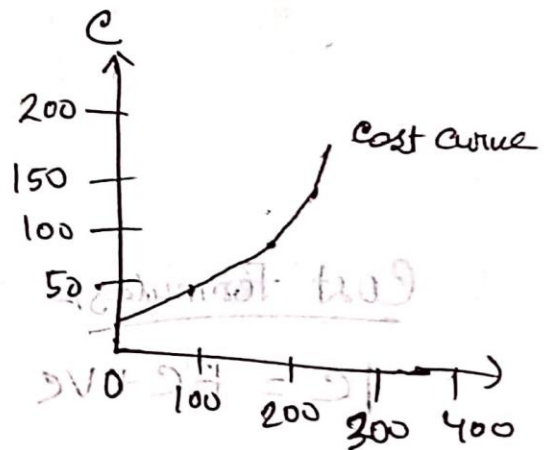
→ $MC < AC$ [AC is falling]

→ $MC > AC$ [AC is rising]

→ $MC = AC$ [AC is maximum]

Same to MC & AVC

output q	Input		Input cost		
	L	K	FC	VC	C
100	1	10	10	50	60
250	1	20	10	100	110
300	1	30	10	150	160



A Tabular Solution:-

$$C = 10 + 20q + 4q^2$$

ATC = Average Total Cost

AFC = Average Fixed Cost

FC → Fixed cost

VC → variable cost

- ⊗ Compute ATC, AC, MC if $q = 10$
- ⊗ Find where $MC = AC$
- ⊗ What level of output minimizes AC?
- ⊗ when is $MC = 60$?

$$C = 10 + 20Q + 4Q^2$$

A Tabular Solution

Q	C	AC	MC
0	10	NA	NA
1	34	34.0	24
2	66	33.0	32
3	106	35.3	40
4	154	38.5	48
5	210	42	56
6	274	45.67	64

$$34 - 10 = 24$$

$$34 - 10 = 24$$

कि पाठित उत्पादन करण ^{Cost minimize} profit maxim? ^{प्रतिफल}

= अर्थात् MC & AC same रहे (Or Almost same रहे)

अर्थात् Unit 2 production व $AC = 33.0$ &

$MC = 32$ यात्र difference 1. अर्थात् unit 2

production व ^{Cost minimize} रहे अर्थात्

almost पाठित है।

Market Structure

A mechanism where the product flows from ~~the~~ seller to buyers.

Industry (Market):

A collection of firms, each of which is supplying products that have same degree of substitutability.

→ Common by buyers

→ Common sellers

⇒ Helps Economists examine the nature & degree of competition among business in the same industry.

Market Structure (Concept)

→ An economic model that helps economists examine the nature & degree of competition among business in the same industry.

(writing about) a business

Perfect Competition:-

- > Many & small sellers (So that none can affect market).
- > Homogeneous product
- > Free entry to & exit from the industry
- > Transparent & free information.

Features of the four market structure

Aut-21
Exam

Type of Market	Seller/ Number of firms	Freedom of Entry	Nature of Product	FK	Demand Curve
perfect Competitive market	→ Many	Unrestricted	Undifferentiated (Homogeneous) [Products are identical]	Cubbage, Carrots	Horizontal
Monopolistic Competition	many	Unrestricted	Differentiated	Buildings, Concretes, Shoes	Downward Sloping
Oligopoly	Few ↓ Telecom company	Restricted	Undif or Dif	Cement, Cars, Electrical Appliances	Downward sloping
pure monopoly	one ↓ City WASA, JTAS	Restricted or Completely Blocked	Unique	Local water supply	Downward sloping

Segment-6 (Trade policy)

⇒ কোনো কিছু অল্পের মধ্যে কিনে এনে বিক্রি করে
Trade। এখানে নিজে কিছু উৎপন্ন করেনা।

Aut-21 → Free trade :- Import & Export এ Tax থাকবে না।

Free Trade এ ① Domestic Consumption Highest হয়।
② Resource utilization efficient হয়।

→ Features of the free market

Instrument of Trade policy

① Tariffs (Import tax, vat etc)

② Non-Tariff (Tax বাহাে অন্য় way e
handle করা হয়।)

Tariff :- Import Tax (করে Tariff বলে)

→ Source of income of govt.

→ Protect Domestic sector.

Specific Tariff :- Fixed value

Ad valorem Tariff :- Imported goods এর value এর উপর
depend করে। value বেশি তাহাে বেশি, কম হলে কম।

Trade in a Single Industry

→ Supply & Demand market is depend

on

→ Exchange Rate remains same.

Trade:-

- (য) একই product এর দাম কম (মধ্যম শ্রেণী) সেখানে দাম বেশি (মধ্যম শ্রেণী) shift হবে।

Cost Benefit of a Tariff

→ prices:- Tariff এর দর দাম বাড়বে Tariff

Consumer: Loss $(V - V_m)$

producer: Gain in Importing Country

Loss in Exporting "

Govt: Revenue

Ex:- কোন দেশে Tariff Export করে Tariff

এর কারণ তার দাম বেড়ে যায়।

Measuring the amount of protection

Main Target:-

principle objective of Tariff is to protect Domestic producer.

How much protection?

- Tariff का कि प्रतिशत import पर
- Tariff का कि प्रतिशत import पर का ratio.

The Effective Rate of protection

$$ERP = (V_T - V_W) / V_W$$

V_T = value Added with Tariff

V_W = value Added with Trade

- It measures the percentage effect of the entire tariff structure.

Tariff Structure:- Relationship among Tariffs in related industries.

Value Added :-

Difference between the selling price & the cost of the intermediate goods.

$$V = P_A - P_B A$$

Non Tariff :-

Subsidies

Government gives subsidies to domestic producers.

Effects of Subsidy :-

→ Domestic producers gain.

→ Government loss.

→ Consumers loss.

Tax or subsidy

→ Govt. gain.

per unit production cost

cost

Import Quotas

- ~~Import~~ amount govt. Fined কর দেয় মেনা এর বাহারে কোন বাহারে শত product import করতে না পারে।
- product Licenses এর সীমিত এই restrictions দেওয়া হয়।
- License এর বাহারে govt. restriction impose করতে পারে।

Effects of an Import Quota

- Imported good
- Imported good এর domestic price raise হয়েছে।
- Have the same effects of a Tariff Tariff।
- Import License Fee এর সীমিত govt. কর এর আধা হয়।
- Quota Rents!- profit received by the holder of import license.



Segment - 5
(Income & Inflation)

National Income:

Nation ৰা মাজে ৱা person আৰে আনোৰে জাতক
Income ৰা মোটামুঠ।

Central Statistical Organization says,

→ "National Income is the sum total of factor incomes earned by the normal residents of a country in the form of wages, rent, interest & profit in an accounting year"

Prof Kuznets says,

→ "The sum total of the market value value of final goods & services, produced by normal residents of a country in one year is known as national product."

The Circular Flow Diagram

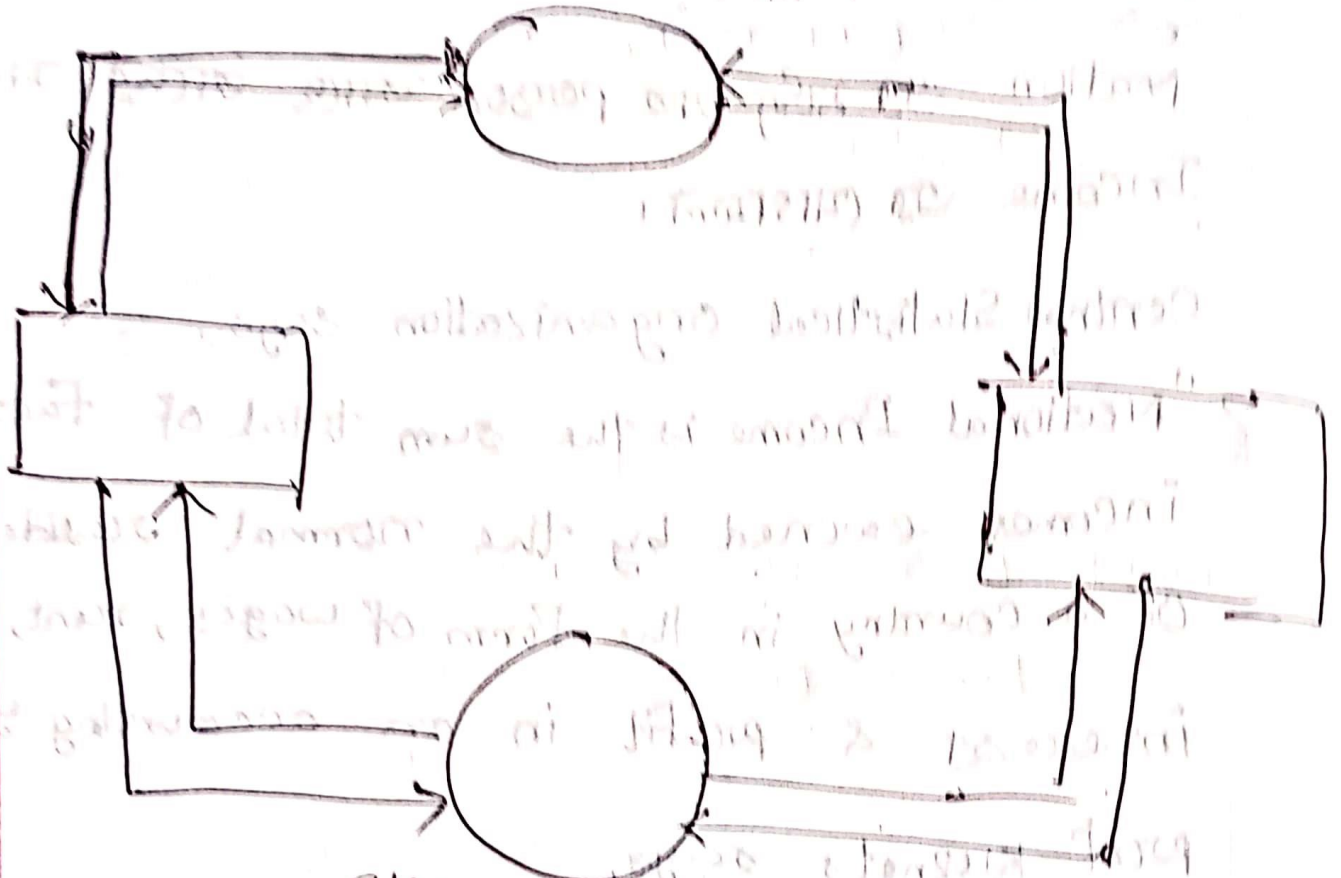


Fig 1 - Circular Diagram

→ $\text{GDP} = \text{Total Income}$

GDP का माप

① Product Method - उत्पाद (Product) द्वारा

② Expenditure Method - व्यय (Expenditure) द्वारा

③ Country People - देश के लोग (Country people) द्वारा
 - कठ (Saving) + कठ (Savings) का

④ Income Method - आय (Income) द्वारा
 - Country people द्वारा आय (Income) का

और (And) GDP का माप (GDP measurement)

Q NNP (Net National Product)

Q Concepts of National Income

various concepts:-

1 Net Domestic product (NDP)

2 GNP (Gross National product)

3 GDP (Gross Domestic product)

4 NNP (Net National product)

5 DI (Disposable Income)

6 PI (Personal Income)

7 per Capita Income (PCI)

$GDP + \text{Net Foreign Factor Income} = GNP$
 (মাত্র বিদেশ চাকরি)

$GNP - \text{Depreciation} = \text{National Income}$

Aut-2

Definition GDP

\Rightarrow Sum of the market

\Rightarrow এক বছরে কোনো country তে (সে দেশের) product (produce) এর total Market value কে GDP বলে।

$$GDP = \sum_{i=1}^n v_i = \sum_{i=1}^n P_i \cdot Q_i$$

GDP Growth - per year এ GDP মত বাড়বে। প্রতি country তে per year এ GDP Growth বসবে হবে।

অনেক বছরে GDP কে বসবে হবে একটা Common market price দ্বারা GDP বসবে হবে। এক Real GDP বলে।

আর Current market price দিয়ে (কি বসবে) Nominal GDP বলে।

Final goods

Value Added Approach - (GDP (at MP))

Former Stage of production	Value of Intermediate good	Value of goods	Value added
Farmer - P		12,000	12,000
Rice miller	12,000	15,000	3,000
Milled Rice	12,000	15,000	3,000
Retailer	15,000	20,000	5,000
GDP			20,000

For measuring National Income

☐ Merits & uses of National Income

Statistics: (GDP का उपयोग कि?)

⇒ Reflecting & Comparing the standards of living of different countries.

⇒ per capita real GDP ⇒ Standard of living

⇒ providing info to government & firms for ^{economic} planning

⇒ Reflecting the economic growth of a country to change in real GDP over a ~~past~~ period of time.

☐ Using GDP Figures:

→ Several years का comparison कर सकते हैं
OR, Other countries का साथ comparison कर सकते हैं।

→ GDP द्वारा किसी country का power level मापा जा सकता है।

→ per capita GDP द्वारा various nations का साथ compare कर सकते हैं।

→ GDP द्वारा ब्रह्मन्ना द्वारा poor measure

→ per Capita GDP @ limitation श्रवण

Purchasing power parity (PPP) (उत्तर द्वारा)
↓
[द्वे देशों के आनुषंगिक कृषि खसत
द्वारा Compare कर श्य]

Inflation

~~वर्धन~~
Inflation means किनिमपल्लेव दाम वेडे

माओया।

→ Inflation reduces the purchasing power

of money.

→ will buy fewer goods than before.

① Government-people (मारा वारा वारा)

① People with fixed income (मारा वारा वारा)

② Business (मारा वारा वारा)

② People with fixed income (मारा वारा वारा)

③ ... (मारा वारा वारा)

③ ... (मारा वारा वारा)

How inflation measured?

→ Government Tracks the prices of the same goods & services each year.

→ This "Market Basket" is made up of 300 commonly purchased goods.

→ Base year is used to compare

→ Ex.

2005 inflation rate 3.4%

→ US prices have increased 98.3% since 1982

→ Inflation Good or Bad?

⊗ Identify which people are helped & which are hurt.

Hurt by Inflation	Helped by Inflation
① Lenders people (স্বত্ব গ্রহণকারী) (At fixed interest)	① Borrowers-people (স্বত্ব গ্রহণকারী)
② People with fixed income	② Business (সামান্যতঃ product price বাড়ি কিন্তু already অন্য resource মজুদ করা আছে।)
③ Money lenders	

সমস্যা: কালের বদলে ডুপ্লি কেল।

2) New products: - New product CPI গণনা
আসনা।

3) product quality: - CPI ignores both
improvements & decline in product
quality.

Calculating CPI

Year	units of Output	price of per unit	National GDP	Real GDP	CPI/GDP Deflator	Inflation Rate
1	10	\$4	\$40	\$40	100	N/A
2	10	5	50	40	125	25%
3	15	6	90	60	150	20%
4	20	8	160	80	200	33.33%
5	25	4	100	100	100	-50%

% Change in price = $\frac{\text{Year 2} - \text{Year 1}}{\text{Year 1}} \times 100$

Causes of Inflation:-

Demand pull Inflation

→ চাহিদা বেশি হওয়ায় দাম বেড়ে গেলো।
→ মাল হওয়ায় দাম বেড়ে গেলো।

Government prints too much money:-

Cost - Push Inflation
Higher production costs increase prices.

wage - price spiral:-

- workers demand raises
- owners increase prices to pay wages
- High prices worker চাহিদা বাড়ায়।
- Owner demand মিচি আবার price বাড়ায়।
- High price এ আবার workers চাহিদা বাড়ায়।
- Owner ও price বাড়ায়

[to be continued process]

[মিচি ম্যাথ আছে এতে পাই-এ]

$$\begin{array}{r} 25 \\ 100 \\ \hline 125 \end{array}$$

$$\begin{array}{r} 100 \\ 25 \\ \hline 125 \end{array}$$

Segment-7

(Economic Growth vs Economic Development)

Economic Growth

GNI or GNP as Growth

- Greater quantities of Natural Resources, human resources, and Capital.
- Improvements in the quality of resources
- Technological advances that boost productivity

Economic Development

- If Economic Growth is not equally distributed
- Economic Structure + Distribution then we can get the Economic Development.

Why whole world is not developed?

- Difference in resource (शक्ति, प्राकृतिक संपदा)
- Difference in culture (मानवीय जीवनांतर)

GDP & welfare

→ GDP - economic well being of the society

→ GDP measurement

→ GDP per person tells us income & expenditure of the average person in the economy.

→ Higher GDP per person Higher standard of living

→ But GDP is not happiness index

GDP does not include

→ value of leisure

→ value of a clean environment

→ Market value of services

GDP measurement problems

(i) Home production

(ii) Illegal Activities

→ Data may not be accurate

→ Data collection limit

→ Agricultural area production difficult

Q) Growth vs Development

→ GDP may rise without Development.

→ Development measured by increases in literacy, health care etc.

→ Most time they are correlated.

Q) Economic Development partners:

1) Elected official (सुबिन, सिटीसी, एमपी)

2) Govt. Staff (UNO, DC etc)

3) Economics Dev. org.

4) utilities (पावर, गैस, टेलीफोन, इत्यादि)

5) Chamber of commerce (शुद्ध)

6) Neighborhood Associations (प्राथमिकता फंड, क्लब)

7) Commercial real estate professionals (डिप्लोमेट्स)

8) Developers (प्रायोजन, प्रोजेक्ट डेवलपर्स)

9) Educational Institutions (विद्यालय, कॉलेज)

10) Financial community (बैंक, फंड्स)

11) Citizens (सामान्य जनता)

Q] Wealth & Welfare Gap:

-> World is 20% (only 80% wealth is in the

-> The rest 60% (only 20% wealth only 6%

wealth own only)

(Source of)

Q] Obstacles to Economic Development:

-> Natural resources (Natural resources are obstacles)

-> Human resources (Skill man-power (Skill man-power is not developed))

-> Capital Formation (Capital formation is not developed)

-> Technology (Technology is not developed)

-> Socio-cultural & Institutional factors

Q] The vicious circle (दुर्गति का चक्र):

-> Low per capita income

-> Low Demand & Low saving rate

-> Limited new investment

-> Maintains low productivity.

-> Perpetuates low income, & reduce population growth.

→ And the cycle begins again.

(समस्या समाप्त, जायति इति इति शब्दात्) (६)

Q How can more Developed Nations help?

⇒ Expanding Trade (सूद सूद दे एत उद्योग)

→ Foreign Aid (विधि देण श्रे गण)

→ Flows of private capital

(→ Direct Foreign investment

→ Tech often moves with capital

⇒ Selective regional focus.

[Harrod - Domar Model मॉडल]

Segment-8 (planning)

D Plan goals & targets 7th FYP:-

A) Income & poverty (Attaining avg. GDP growth of 7.4% per year over the plan period.)

B) Sector Development:-

- Increase contribution of the manufacturing sector to 21% of GDP by FYP 2016
- Substantial improvement of export to \$1.1 B
- Trade GDP 50%

C) Macroeconomic Development:-

- Revenue to be raised from deficit 5%
- Govt increasing spending to be increased to 21.1%
- FDI to be increased by \$9.6 B

D] Urban Development (water source will be ensured)

E] Human Resource Development

F] water & Sanitation

G] Energy & Infrastructure

H] Gender equality, Income inequality & Social protection

I] Environmental Sustainability

J] ICT Development

K] Economic planning

→ Govt. plan to direct the economy
(Such as taking measure to influence production)

System of Economic Management: Mixed economic

→ Private sector :- profit maximizing business firms

→ Public sector :- Employment maximizing govt agency

Economic systems :-

→ Capitalism :- Large pvt sector, but small public sector

→ socialism :- Large public " , " " pvt "

Aut 21

1 Aug 21

Economic Role of the State:-

- protect private property & legal rights
- produce public goods
- Improve market competition
- Improve income distribution
- preserve the human environment
- Manage the economy

Ex: - Automobile, mobile, airline tickets.

Monopolistically competitive firms:

Many firms competing in the market.

Ex: - Fast Food, personal care products.

Perfectly competitive firms:

There are many buyers & sellers but no

single firm has control over market.

Ex: - wheat, corn, fruits, natural gas etc.

1) Monopolistic Firms

Sole provider of a particular product or service in the market. They have complete control over pricing.

Ex: - Water, Electricity

2) Oligopolistic Firms

Large firms dominate market

Ex: - Automobile, Mobile, Airline Tickets.

3) Monopolistically Competitive Firms

Many firms competing in the market.

Ex: - Fast Food, personal care products.

4) perfectly Competitive Firms

There are many buyers & seller but no single firm have control over market.

Ex: wheat, corn, fruits, natural gas etc

on ly
2(a) Different Types of Market:

→ Physical consumer

→ " business

→ Non

→ Financial Market

→ Unauthorize & illegal

3(b) Different Types of Non-Tariff Barriers:

1] Import Quotas

2] Import Licensing

→ Subsidies & State Aid

→ Govt. procurement Restriction

→ Voluntary Export Restraints (VERs)

→ Intellectual property Rights (IPR)

5(b) Economic Role of the State:-

- providing public Goods & services
- Regulation and Market oversight;
- Monetary policy & Macroeconomic Management
- Economic planning