



CHAPTER 1 INTRODUCTION TO BUSINESS ECONOMICS



Understanding Choices. Creating Value. Building a Better Future.

- 1** Business is an **economic activity** which converts input such as men, labour, material etc. to output for the purpose of **profit**.

INPUTS



- 2** The word Economics is derived from two Greek words

“Oikos”
meaning
household

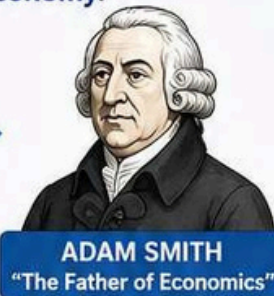


“Nomia”
means
management



Thus, Economics literally means
“Management of a Household”.

- 3** Till 19th century, Economics was a part of **Political Economy**.



He segregated it and gave a separate identity to the subject **Economics**.

- 4** The fundamental facts in economics are

a. Wants are unlimited



b. Resources are limited



- 5** Economics studies how scarce resources can be put to satisfy competing unlimited wants.



WISE
USE &
ALLOCATION



SATISFY
COMPETING
WANTS



- 6** The study of economics enables us to



a Develop analytical approach to understand wide range of economic problems.



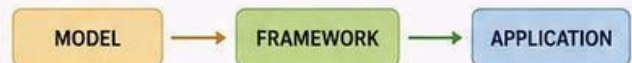
b It provides number of models and frameworks to apply in different situations.



c It helps in choosing best course of action among different alternatives.



d It may not provide the exact solutions to economic problems but it provides a **right perspective** to solve the problem.

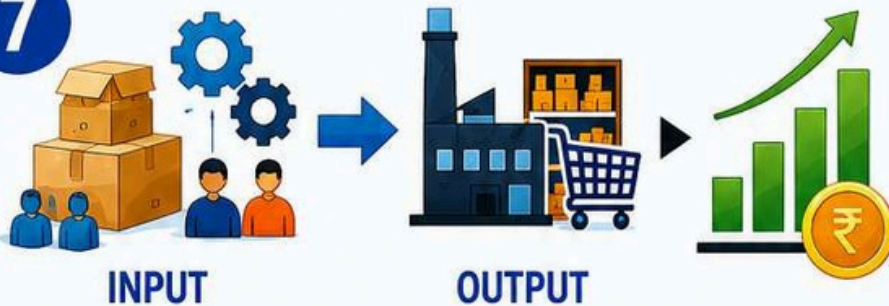


RIGHT PERSPECTIVE
BETTER DECISIONS
BETTER OUTCOMES



Economics helps us make **informed choices** and achieve **maximum satisfaction** with limited resources.

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Business is an economic activity that converts **input** into **output** for **profit**, which involves complex and strategic decisions on a daily basis.

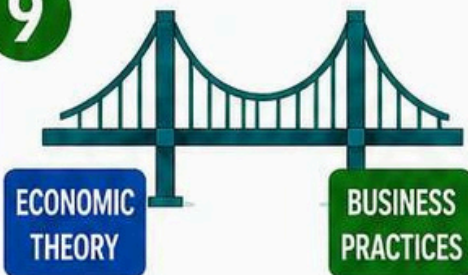
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Business economics meet the requirements of the management by providing huge corpus of theories and techniques to make decisions and there by integrates economic theory with business practices.



9



Business Economics is also called as **Managerial economics** and **Applied economics** as it bridge the gap between economic theory and business practices.



10



As per Joel Dean

“Business economics is the use of economic analysis in formulation of business policies.”



11



It is the study of different individuals and organizations within an economic system. It focuses on small number or group of units.

- Study of firms
- Behavior of individuals
- Product pricing
- Factors pricing etc.



12



It's the study of economy as whole.

- National Income
- Balance of trade
- External value of money
- General price level
- Interest rates etc.



Business Economics helps managers take better decisions, optimize resources, and achieve the goal of **profit maximization**.

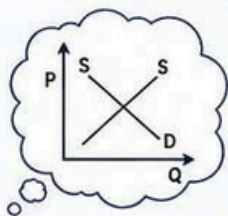


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NATURE OF BUSINESS ECONOMICS

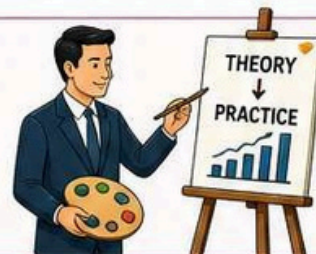
ii Hypothetical and Simplistic

Economic theories are hypothetical and simplistic in character with simplifying assumptions.



(v) It is an Art

It is an art – which requires practical application of theories.



(ii) It is a Science

It is a science – a systematized body of knowledge.



(vi) Pragmatic in Approach

It is pragmatic in approach – where it practically applies the economic concept.



(iii) Based on Micro Economics

It is based on micro economics – as it is concerned only about a business.



(vii) Interdisciplinary

It is interdisciplinary – as it takes tools from other disciplines.



(iv) Incorporates Macro Elements

It incorporates elements of macroeconomic as well.



(viii) Normative in Nature

It is normative in nature – as it states what ought to be.



In essence, Business Economics is both a science and an art that uses theories, real-world application and practical judgment to help in better business decision-making.



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SCOPE OF BUSINESS ECONOMICS

It's divided into two main types

A. Micro Economics (Internal Issues)

- i) Demand Analysis and forecasting
- ii) Production and cost analysis
- iii) Inventory management
- iv) Market structure and Pricing Policies
- v) Resource Allocation
- vi) Theory of capital and investment decision
- vii) Profit analysis
- viii) Risk and uncertainty analysis



Business Economics analyzes both **internal** and **external** factors to optimize decisions, improve performance and achieve business objectives.



B. Macro Economics (External Issues)

- i) Type of economic system
- ii) Stage of Business Cycle
- iii) General trends in National income
- iv) Governments economic policies
- v) Working of central bank
- vi) Socio economic organizations
- vii) Political environment



Better decision making



Efficient use of resources



Improved performance



Reduced risk and uncertainty



Sustainable growth

13. BASIC PROBLEMS OF AN ECONOMY

i All countries face **scarcity**.



ii) The basic problems in an economy is mainly due to **unlimited wants** and **limited resources**.



14. BASIC PROBLEMS IN AN ECONOMY ARE

i **What to produce?**

It deals with the problem of choice. That is with limited resources, what kind of goods must be produced?

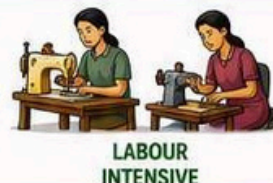


ii) **How to Produce?**

It is the problem of what technique of production must be used, whether Capital intensive techniques or labour intensive technique?

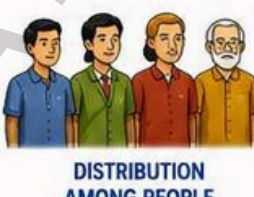


METHOD / TECHNIQUE OF PRODUCTION



iii) **For whom to Produce?**

It is the problem relating to how to share the national output to people. It tries to decide who should get how much share in total output.



iv) **What provision can be done for future economic growth?**

It is the problem relating to the savings and investment decisions. If all resources are invested then future production capacity shall decrease and if savings increases then the present production capacity decreases.



15. ECONOMIC SYSTEM

i To solve the central economic problems an economic system is needed.



ii) The economic system is the sum total of all arrangements from the stage of production to the stage of consumption.

iii) Economic systems are divided into 3 types such as

a) **Capitalist Economy**



- Private ownership
- Profit motive
- Market driven

b) **Socialist Economy**



- Public ownership
- Social welfare motive
- Central planning

c) **Mixed Economy**



- Co-existence of private and public sectors
- Both profit and social welfare motives
- Regulated by government

16. CAPITALIST ECONOMY

Capitalist Economy- where all the resources are owned and managed by the **Private individuals** for **profit**. The government has limited role to play.



CHARACTERISTICS OF CAPITALIST ECONOMIES

- | | | | | | | |
|---|---|---|---|--|---|---|
|  |  |  |  |  |  |  |
| i Right to Private property | iii Freedom of Enterprise | iii Freedom of economic choice | iv Profit Motive | v Consumer Sovereignty | vii Competition | viii Limited Government intervention |

HOW DO CAPITALIST ECONOMIES SOLVE THEIR CENTRAL ECONOMIC PROBLEMS?

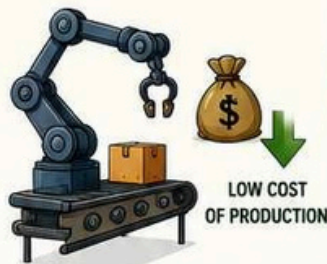
i What to Produce

They produce those goods where the demand is high.



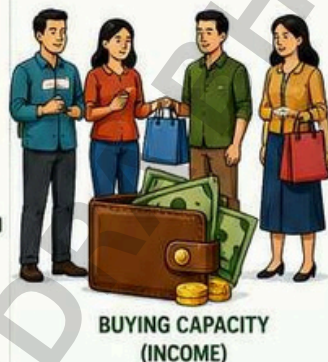
ii How to Produce

Use that technique of production where the cost is very less.



iii For whom to Produce

Goods will be produced for those who has the buying capacity (income).



iv What provisions can be done for future

Savings and investment decisions depend on the interest rate and rate of return on capital. If interest rate is more the savings increases, where the Return on investment is more there the investment increases.



ADVANTAGES OF CAPITALIST ECONOMY

- | | |
|--|---|
| 1 Self regulating so the cost of information processing is less. |  |
| 2 The profit motive increases the efficiency and incentive to work. |  |
| 3 Faster economic growth |  |
| 4 Optimum allocation of resources. |  |
| 5 It brings large variety of good quality goods |  |
| 6 It provides incentive for innovation and technological progress. |  |
| 7 It rewards men's of initiative |  |
| 8 It encourages entrepreneurial class |  |

DISADVANTAGES OF CAPITALISM

- | | |
|---|---|
| 1 It expands economic inequalities |  |
| 2 Precedence of property right over human rights |  |
| 3 Pattern of demand does not reflect the real needs of society and leads to unfairness |  |
| 4 Consumer sovereignty is a myth and leads to more consumer exploitation |  |
| 5 Miss allocation of resources and more production of only luxury goods |  |
| 6 Overproduction, unemployment and depression is very common under capitalism |  |
| 7 It may lead to formation of monopolies |  |



Capitalist Economy is driven by private ownership, freedom and profit motive, but it brings both opportunities and challenges for society.



- i It was propounded by **Karl Marx** and **Fredric Engels** in their book "**the communist manifesto**"



- ii In this system all means of production i.e. Factories, Capital, Mines etc are owned by the **whole community** represented by state.



FACTORIES



CAPITAL



MINES

OWNED BY THE
WHOLE COMMUNITY
(REPRESENTED BY STATE)

- iii It is also called "**command economy**" or "**Centrally planned economy**"



CHARACTERISTICS OF SUCH ECONOMY ARE

- 1 Collective Ownership



- 2 Economic Planning



- 3 Absence of Consumer Choice



- 4 Relatively equal income distribution



- 5 Minimum Role of price mechanism



- 6 Absence of competition



SPECIAL NOTE:

- 1 Small farms, workshop and trading firms are under private hands.



- 2 Freedom of hunger is guaranteed but consumers sovereignty gets restricted.



- 3 Range of production and choice is given to society



- 4 Right to work is guaranteed but choice of occupation is restricted



MERITS OF SOCIALISM

- 1 Equal distribution of wealth and income
- 2 Balanced economic development is possible
- 3 It ensures better utilization of resources.
- 4 Unemployment is minimized, fluctuations are eliminated and stability is brought.
- 5 Brings cooperative mentality and avoids class war.
- 6 Ensures minimum standard of living to all.
- 7 Protection of consumers and labors from exploitation



DEMERITS OF SOCIALISM

- 1 leads to inefficiency and delays, corruption, red tapism, favoritism etc
- 2 It restricts the freedom of individuals
- 3 It takes away the basic rights, such as private property.
- 4 No incentive in the form of profits
- 5 State monopolies may become uncontrollable
- 6 limited freedom of choice

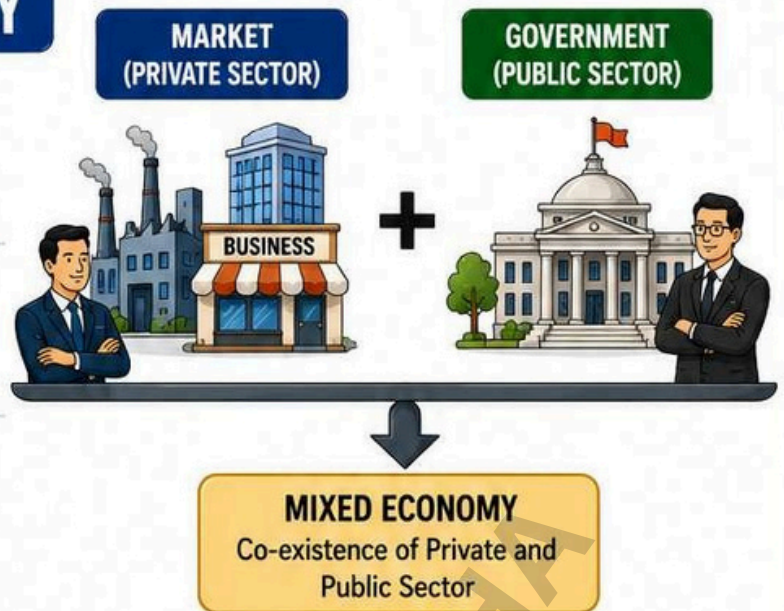


Socialist Economy aims at social welfare, equality and stability through collective ownership and planning, but faces challenges of efficiency and individual freedom.



18. MIXED ECONOMY

- 1 It depends on both **markets** and **governments** for allocation of resources.
- 2 It aims to include **best features** of both but exclude the demerit of both.
- 3 The main feature of mixed economy is **Co-existence** of both **private** and **public** sector.



HOW MIXED ECONOMY WORKS?



MERITS OF MIXED ECONOMY

- 1 Economic Freedom and Right to private property provides **incentive** to work.
- 2 Price mechanism and competition leads to **better allocation** of resources.
- 3 Consumers are benefited through **consumer sovereignty**.
- 4 Innovation and **technology** progress.
- 5 Encourages **enterprise** and risk taking.
- 6 Comparatively greater economic and social **equality** due to government intervention.

DEMERITS OF MIXED ECONOMY

- 1 There shall be excessive control by state resulting in reduced incentives and constrained growth.
- 2 Poor implementation of planning and high rates of taxes, corruption and wastage of resources etc.
- 3 Difficult to maintain a proper balance between public and private sector.
- 4 Absence of strong government initiatives may lead to disproportionate growth of private sector.



Mixed Economy tries to balance **efficiency** and **freedom** of the market with **equity** and **welfare** of the society through government intervention, aiming at overall **economic development** and **social justice**.





CHAPTER 2

THEORY OF DEMAND AND SUPPLY



1 DEMAND



- i) It refers to the quantity of a good or service that buyers are willing and able to purchase at various prices for a given period of time.

ii) Demand depends on



Desire to Purchase



Ability to purchase



Willingness to purchase

iii) Two important Notes are

- Demand is always expressed at a given prices.
- Demand is a flow concept.



2 DETERMINANTS OF DEMAND



- i) Price of the commodities



- ii) Price of related commodities



- iii) Disposable income of the consumer



- iv) Taste and preferences of buyer



- v) Consumers expectation



- vi) Size of population



- vii) Credit facilities

NOTES



- 1) **Bandwagons effect** - Demand increases as the number of consumer using it increases.



- 2) **Snob effect** - Demand decreases as the number of consumers using it increases.



- 3) **Veblen Effect** - Demand increases if the price increases.

3 DEMAND FUNCTION



It is the functional relation between Demand for a product and its various factors on which demand depends.

$$D_x = f(P_x, P_r, Y, \dots)$$

4 LAW OF DEMAND



It states that under *ceteris paribus* conditions, there is negative relationship between demand of a good and its price.

5 DEMAND SCHEDULE



It is the tabular representation of relation between the quantity demanded and the price.

6 DEMAND CURVE

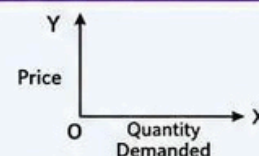


It's the graphical presentation of Demand Schedule.

SOME IMPORTANT NOTES ON DEMAND CURVE

1

The "x" axis usually shows the quantity and "y" axis shows the price.



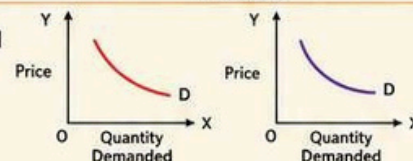
2

Demand curve slopes downward from left to right.



3

Demand curve need not be a straight line, it can be curvilinear also.



4

Slope of the demand curve is

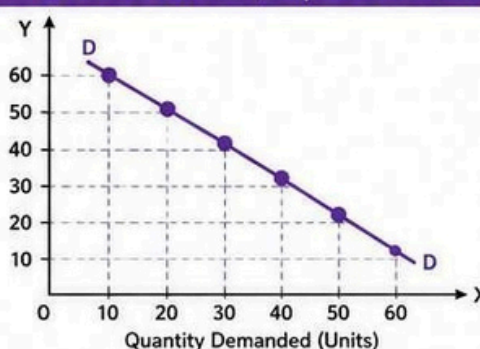
$$\text{Slope} = - \frac{\Delta P}{\Delta Q}$$

DEMAND SCHEDULE (Example)

Price of Commodity (₹) (P _x)	Quantity Demanded (Units) (Q _x)
60	10
50	20
40	30
30	40
20	50
10	60



DEMAND CURVE (Graphical Presentation)



As price falls, quantity demanded rises and as price rises, quantity demanded falls.

law of demand!



7

REASONS FOR DOWNWARD SLOPE OF DEMAND CURVE



i) Substitution effect -

When the price of a good falls, then people substitute the good from high priced goods to the good where the price has fallen.



ii) Income Effect -

When the price falls, the purchasing power increases so the demand also increases.



iii) New consumers -

When price falls, the good becomes affordable to many buyers so the demand increases.



iv) Different Uses -

When the price falls, the product can be purchased for different uses and the demand increases.



v) Utility maximizing behaviour-

when the price falls, the consumer increases the demand to maximize his utility.

8

EXCEPTION TO LAW OF DEMAND

In the following cases the relation between demand and its determinants are not negative.



i) Conspicuous Goods -

articles of prestige value is demanded more if the price increases



ii) Giffen goods -

also called as inferior goods, the demand for such goods increases as the price increases, because the purchasing power of the consumer decreases, thus they cannot purchase the luxury goods.



iii) Conspicuous necessity-

Some goods, such as mobile, fridge, washing machines are luxurious necessities, even if its price increases, the quantity demanded does not decrease.



iv) Future expectation about the price-

if the price is expected to increase in future, consumers buy the goods even if the present price is high.



v) Demand for necessities -

If the price of necessities increases, the demand for such goods does not decrease.



vi) Other exceptions

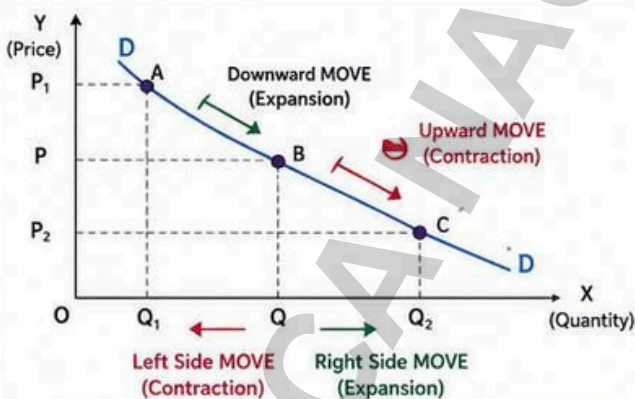
- Ignorance
- Speculative goods

9

EXPANSION AND CONTRACTION IN QUANTITY DEMANDED

- It happens mainly due to change in the price of goods concerned.

- Right Side MOVE is Expansion
- ← Left side MOVE is Contraction
- ↑ Upward MOVE is Contraction
- ↓ Downward MOVE is Expansion



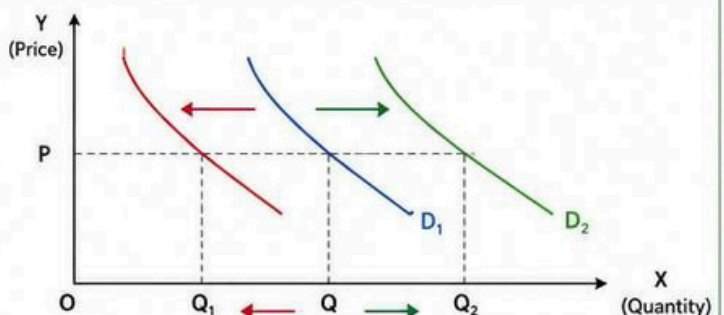
Movement along the same demand curve is called Expansion or Contraction in Quantity Demanded.

10

INCREASE AND DECREASE IN DEMAND

- It happens mainly due to change in any factor other than the price of the goods concerned.

- Right Side SHIFT is Increase
- ← Left side SHIFT is decrease
- ↑ Upward SHIFT is Increase
- ↓ Downward SHIFT is decrease



Left Side SHIFT
(Decrease in Demand)

Right Side SHIFT
(Increase in Demand)

Upward SHIFT
(Increase in Demand)

Downward SHIFT
(Decrease in Demand)



Shift of the demand curve is called Increase or Decrease in Demand.

QUICK TIP

Movement along the curve = Change in Quantity Demanded (Expansion / Contraction)

Shift of the curve = Change in Demand (Increase / Decrease)



11. ELASTICITY OF DEMAND



PRICE



QUANTITY DEMANDED

1 Unlike law of demand, elasticity of demand is the **quantitative measure**.

2 It measures the **responsiveness of demand** to change in its determinants.

3 It can be calculated as a **percentage change in quantity demanded** divided by **percentage change** in one of the variables on which demand depends.

4 There are four different types of elasticity.



a) Price elasticity of demand



b) Income elasticity of demand



c) Cross elasticity of demand



d) Advertisement elasticity of demand

KEY IDEA

Elasticity of Demand (E)

=

% Change in Quantity Demanded

% Change in one of the Determinants of Demand

DETERMINANTS OF DEMAND



1. Price of the commodity (Own Price)



2. Income of the consumer



3. Prices of related goods (Substitutes/Complements)



4. Tastes and preferences



5. Expectations about future



6. Number of buyers



7. Advertisement

12. PRICE ELASTICITY OF DEMAND

1 It measures the sensitivity of quantity demanded to **own price**.

2 It can be calculated by using the following formula.

Percentage change in quantity demanded ÷ Percentage change in price

Or

$$\frac{\Delta Q}{\Delta P} \times \frac{P}{Q}$$

ΔQ = Change in quantity demanded
 ΔP = Change in price
 P = Original price
 Q = Original quantity demanded

3 The **greater the value** of elasticity, more sensitive quantity demanded is to price.

4 Since price and quantity are inversely related, there is negative sign.

While interpreting the coefficient of price elasticity, we consider only **magnitude** of the price elasticity.

We ignore minus sign.

NOTE

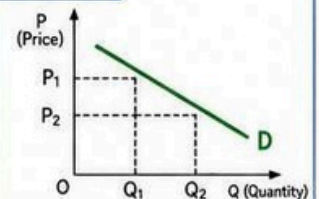
Price $\uparrow$ → Quantity Demanded $\downarrow$
 Price $\downarrow$ → Quantity Demanded $\uparrow$

5 TYPES OF PRICE ELASTICITY

a) **RELATIVELY ELASTIC**

$$E_p > 1$$

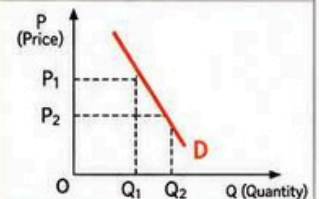
Quantity demanded responds more than proportionately to change in price.



b) **RELATIVELY INELASTIC**

$$E_p < 1$$

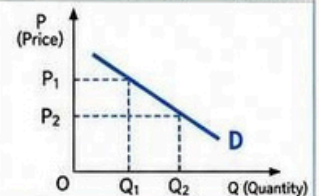
Quantity demanded responds less than proportionately to change in price.



c) **UNITARY ELASTIC**

$$E_p = 1$$

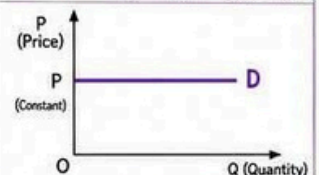
Quantity demanded responds exactly in proportion to change in price.



d) **PERFECTLY ELASTIC**

$$E_p = \infty$$

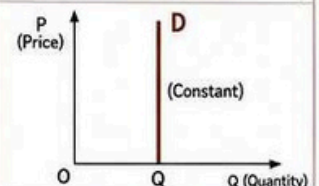
Quantity demanded changes infinitely with no change in price.



e) **PERFECTLY INELASTIC**

$$E_p = 0$$

Quantity demanded does not change with any change in price.



KEY TAKEAWAY

Elasticity of demand measures how responsive buyers are to changes in factors affecting demand. Price elasticity of demand focuses on how quantity demanded responds to changes in own price.



METHODS OF MEASURING PRICE ELASTICITY



A FORMULA METHOD

Here we use the formula

$$E_p = \frac{\text{Percentage change in quantity demanded}}{\text{Percentage change in price}} \quad \text{OR} \quad E_p = \frac{\Delta Q}{\Delta P} \times \frac{P}{Q}$$

Where,

ΔQ = Change in quantity demanded

ΔP = Change in price

P = Original price

Q = Original quantity demanded

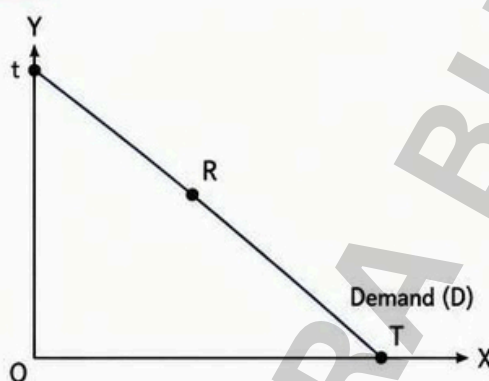


KEY IDEA

It shows how much quantity demanded changes in response to a percentage change in price.

B POINT ELASTICITY METHOD

- 1 It measures elasticity at a particular point on the demand curve.
- 2 It is used where the change in price is infinitesimal.



- 3 Under point elasticity method, the elasticity on different points can be calculated by using the following formula.

$$E_p = \frac{\text{Number of lower segment}}{\text{Number of upper segment}}$$

Where,

Upper segment = tR

Lower segment = RT

C ARC ELASTICITY METHOD

- 1 It measures the elasticity over some portion of the demand curve.
- 2 It is used when price and quantity changes are discrete and large.
- 3 Arc elasticity can be found out by using the following formula.

$$E_p = \frac{Q_2 - Q_1}{Q_2 + Q_1} \times \frac{P_2 + P_1}{P_2 - P_1}$$

Where,

Q_1 = Original quantity

Q_2 = New quantity

P_1 = Original price

P_2 = New price



USEFUL WHEN

Price and quantity changes between two points on the demand curve are large.

D TOTAL OUTLAY METHOD

- 1 It measures the elasticity by analyzing the changes in total expenditure in response to a change in the price of the commodity.
- 2 Elasticity is equal to one when as a result of change in the price of good the total expenditure on the good or total revenue received from that good remains the same.
- 3 Elasticity is greater than unity when as a result of increase in the price of a good the total expenditure made on the good or total revenue received from that good falls or when as a result of decrease in the price, the total expenditure made on the good or total revenue received from that good increases.
- 4 Price elasticity of demand is less than unity when as a result of increase in the price of a good the total expenditure made on the good or total revenue received from that good increases or when as a result of decrease in its price, the total expenditure made on the good or the total revenue received from that good falls.

$$\text{TOTAL OUTLAY (TR)} = P \times Q$$

$E_p = 1$ (Unitary Elastic)	Total outlay remains the same.
$E_p > 1$ (Relatively Elastic)	↑ Price ⇒ Total outlay falls ↓ Price ⇒ Total outlay rises
$E_p < 1$ (Relatively Inelastic)	↑ Price ⇒ Total outlay rises ↓ Price ⇒ Total outlay falls



IN A NUTSHELL

These methods help us measure how sensitive quantity demanded is to changes in price under different situations, whether at a point, over an arc, or by analyzing total expenditure.

13. DETERMINANTS OF PRICE ELASTICITY OF DEMAND

1		Availability of substitutes	➤ When more substitutes are available, the elasticity will be more .
2		Position of a commodity in the consumers budget	➤ If greater income spent on a commodity, generally greater will be its elasticity.
3		Nature of the need that commodity satisfies	➤ If the commodity is luxury goods , then elasticity will be more. In contrast necessities are price inelastic .
4		Number of uses to which a commodity can be put	➤ More the possible uses of a commodity, the greater will be its price elasticity.
5		Time period	➤ The longer the time period one has, the more completely one can adjust, thus the elasticity will be more .
6		Consumer habits	➤ Habitual goods are less elastic .
7		Tied demand	➤ The demand for goods which are tied to other is normally inelastic .

KEY TAKEAWAY



Factors that increase choice, flexibility, spending share, uses and time increase price elasticity of demand.

Factors that create necessity, habit or compulsion reduce price elasticity of demand.

14. INCOME ELASTICITY OF DEMAND

- It is the responsiveness of demand to **change in the income** of the consumer.

$$E_i = \frac{\text{Percentage change in demand}}{\text{Percentage change in income}}$$

- It can be calculated as follows



OR

$$E_i = \frac{\Delta Q}{\Delta Y} \times \frac{Y}{Q}$$

Where,

E_i = Income elasticity of demand

ΔQ = Change in quantity demanded

ΔY = Change in income

Y = Original income

Q = Original quantity demanded

15. TYPES OF INCOME ELASTICITY

	TYPE	CONDITION	DESCRIPTION	EXAMPLE
1	Elasticity greater than one	$E_i > 1$	Demand increases (or decreases) more than proportionately with a change in income. Generally in case of luxury products .	 Luxury cars, foreign travel
2	Elasticity equal to one	$E_i = 1$	Demand changes in the same proportion as income changes.	 Some branded clothing
3	Elasticity less than one but greater than zero	$0 < E_i < 1$	Demand increases (or decreases) less than proportionately with a change in income. Generally in case of necessaries .	 Rice, bread, utilities
4	Elasticity equals to zero	$E_i = 0$	Quantity demanded does not change with change in income. Income has no effect on demand.	 Salt, life-saving drugs
5	Elasticity less than zero	$E_i < 0$	Demand decreases when income increases and vice versa. Generally in case of inferior goods .	 Cheap local tobacco, inferior quality goods



NOTE: Income elasticity helps us understand how demand for a good responds to changes in consumer income. It is important in classifying goods as normal, luxury, necessity or inferior.

16. CROSS ELASTICITY:-



- 1 It is the responsiveness of demand of a product to change in the price of its **related products**.

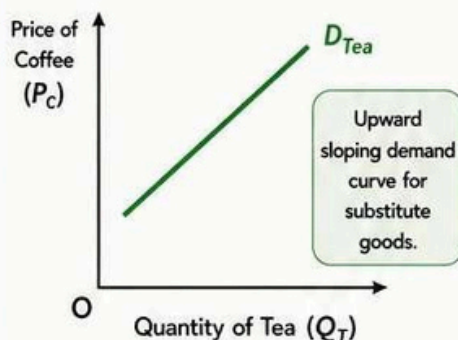
- 2 It can be calculated as follows

$$E_c = \frac{\% \text{ Change in quantity demanded of product "A"}}{\% \text{ Change in the price of Product B}}$$

- 3 There are 2 types of cross elasticity

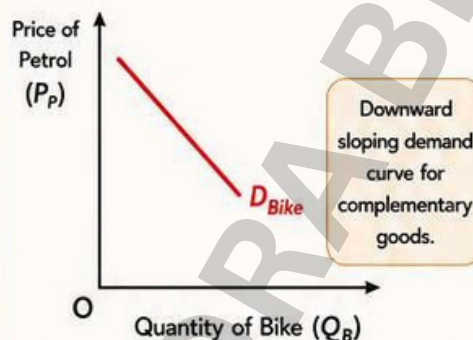
A. SUBSTITUTE GOODS

There is a **positive relation** between the price of the substitute and the demand of the goods concerned.



B. COMPLEMENTARY GOODS

There is a **negative relation** between the price of the complementary and the demand of goods concerned.



NOTE:-

The cross elasticity are of different degrees.

- 1 If the goods are perfect substitutes then the cross elasticity is – **Infinite**
- 2 If the goods are Highly substitutable then the cross elasticity is – **Very high and positive**
- 3 If the goods are Remotely substitutable then the cross elasticity is – **very small and positive**
- 4 If the goods are unrelated then the cross elasticity is – **Zero**
- 5 If the goods are complementary then the cross elasticity is **negative**

17. ADVERTISEMENT ELASTICITY OF DEMAND:-

- 1 It is the responsiveness of demand of a product to change in the **advertisement expenditure**.

- 2 It can be calculated as follows

$$E_{ad} = \frac{\% \text{ Change in quantity demanded or Sales}}{\% \text{ Change in the advertisement expenditure}}$$

- 3 Types of Advertisement elasticity are



	TYPE	MEANING	GRAPHICAL REPRESENTATION
a.	$E_{ad} > 1$	Demand responds more than change in advertisement expenditure.	
b.	$E_{ad} = 1$	Demand responds equally to change in advertisement expenditure.	
c.	$E_{ad} < 1$	Demand responds less than change in advertisement expenditure.	
d.	$E_{ad} = 0$	Demand does not responds to any change in advertisement expenditure.	



THEORY OF CONSUMER BEHAVIOUR



1. HUMAN WANTS

a. Want

Want refers to a wish, desire or motive to own or/and use goods and services that give satisfaction.



b. Characteristics of wants

- 1 Wants are unlimited in number.
- 2 Wants differ in intensity.
- 3 Wants are competitive.
- 4 Wants are complementary.
- 5 A particular want may be satisfied in alternative ways.
- 6 Wants are subjective and relative.
- 7 Some wants recur again.
- 8 Wants may become habits and customs.

c. Classifications of wants

1 Necessaries:

Necessaries are those which are essential for living. Necessaries are further sub-divided into necessities for life or existence, necessities for efficiency and conventional necessities.



2 Comforts:

While necessities make life possible comforts make life comfortable and satisfying. Comforts are less urgent than necessities.



3 Luxuries:

Luxuries are those wants which are superfluous and expensive. They are not essential for living.



2. UTILITY

- 1 It is the want satisfying power of a commodity.
- 2 Utility is a psychological concept.
- 3 There are two approaches to utility

a. CARDINAL APPROACH

Where utility is measured in terms of numbers.



b. ORDINAL APPROACH

Where utility is measured in terms of ranks or preferences.



4. TOTAL UTILITY

It is the summation of Marginal Utility.

Example		
Units Consumed	Marginal Utility (MU)	Total Utility (TU)
1	10	10
2	8	18
3	6	24
4	4	28
5	2	30

$$TU = \sum MU$$

(Sum of Marginal Utilities)



5. MARGINAL UTILITY

It is the additional utility derived from consuming one additional unit.

$$MR_n = TR_n - TR_{n-1}$$

Units Consumed	Total Utility (TU)	Marginal Utility (MU) (MR _n)
1	10	10 - 0 = 10
2	18	18 - 10 = 8
3	24	24 - 18 = 6
4	28	28 - 24 = 4
5	30	30 - 28 = 2

MR_n decreases as more units are consumed (Law of Diminishing Marginal Utility).



Consumer behaviour is based on wants and the utility derived from goods and services.

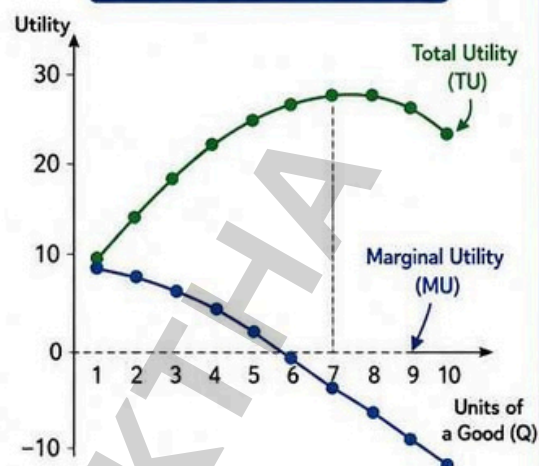
3. LAW OF DIMINISHING MARGINAL UTILITY

- 1 It is based on an important fact that **wants are unlimited**, each single want is **satiated**.
- 2 The law states that as a consumer takes more units of a good, the **extra satisfaction** that he derives from an extra unit of a good **goes on falling**.
- 3 Note that – the **marginal utility** and **not the total utility** which declines with the increase in the consumption of a good.

SCHEDULE ILLUSTRATING LDMU

Units of a Good (Q)	Marginal Utility (MU)	Total Utility (TU)
1	10	10
2	8	18
3	6	24
4	4	28
5	2	30
6	1	31
7	0	31
8	-1	30
9	-2	28
10	-3	25

GRAPHICAL REPRESENTATION



4. PROPERTIES OF LDMU



a. MU decreases from the beginning.



b. TU increases at diminishing rate.



c. When MU is zero, TU is maximum.



d. When MU goes negative, TU starts to fall.

5. ASSUMPTIONS OF LDMU



a. Identical Units



b. Standard units of consumption



c. No time gap or interval between the consumption.



d. The law may not apply to articles like gold, cash etc.



e. Rational Consumer.

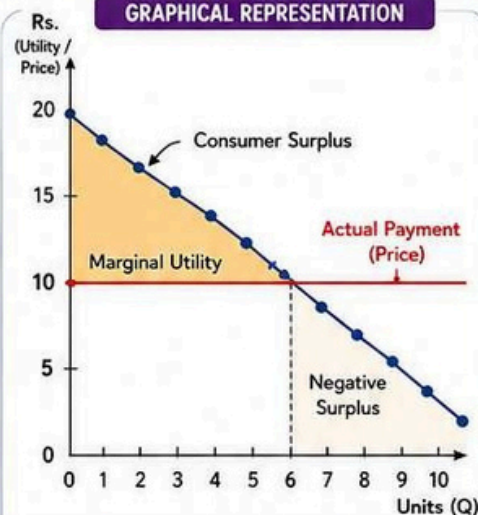
4. CONSUMER SURPLUS

- 1 Propounded by **Alfred Marshall**.
- 2 It is a measure of welfare that people gain from consuming goods and services.
- 3 If a consumer gets more utility from a commodity, he would be **willing to pay a higher price** and vice-versa.
- 4 When price is **less than or equal to** the willingness to pay, the potential consumer purchases the good.
- 5 Consumer surplus is defined as the difference between the total amount that consumers are **willing and able to pay** for a good or service.
- 6 "excess of the price which a consumer would be willing to pay rather than go without a thing over that which he actually does pay", is called **consumers surplus**.
- 7 Thus, consumer surplus = **what a consumer is ready to pay – what he actually pays.**

SCHEDULE ILLUSTRATING CONSUMER SURPLUS

Units (Q)	Marginal Utility (Willingness to Pay) (Rs.)	Actual Price (Rs.)	Consumer Surplus (MU – Price) (Rs.)
1	20	10	10
2	18	10	8
3	16	10	6
4	14	10	4
5	12	10	2
6	10	10	0
7	8	10	-2
8	6	10	-4
9	4	10	-6
10	2	10	-8

GRAPHICAL REPRESENTATION



Consumer Equilibrium occurs where
MU = Price (at Q = 6 units).

APPLICATIONS OF CONSUMER SURPLUS

- 1 Consumer surplus is a measure of the welfare that people gain from consuming goods and services.
- 2 Helps managers make better decisions about setting prices.
- 3 Helps in Investment decisions and analysis.
- 4 It acts as a guide to finance ministers when they decide on taxing policies.

LIMITATIONS OF CONSUMER SURPLUS

- 1 Consumer surplus cannot be measured precisely as it is difficult to measure the marginal utility.
- 2 In the case of necessities, the MU is infinitely large.
- 3 It is affected by the availability of substitutes.
- 4 There is no simple rule for deriving the utility scale of articles.
- 5 Consumer surplus cannot be measured in terms of money.

NOTE:-

- 1 If price increases the Consumer surplus decreases and vice versa.

- 2 Where the price is equal to Marginal Utility, there is consumer equilibrium.





5. INDIFFERENCE CURVE ANALYSIS



1. BASIC CONCEPTS

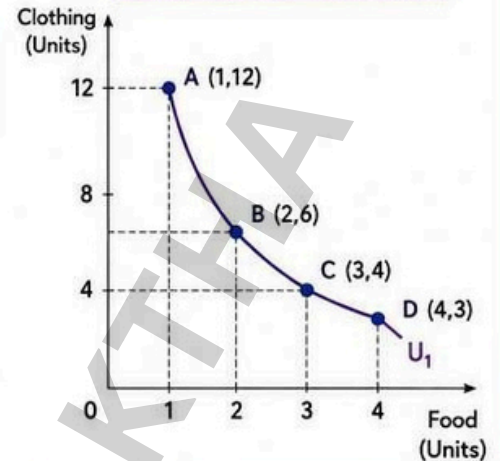
- 1 It is under Ordinal utility approach.
- 2 Given by RJD Allen and JR Hicks.
- 3 An indifference curve is a curve which represents all those combinations of two goods which give **same satisfaction** to the consumer.
- 4 An Indifference curve is also called **iso-utility curve** or **equal utility curve**.

EXAMPLE

Combination	Food (Units)	Clothing (Units)	MRS (Clothing for Food)
A	1	12	0
B	2	6	6
C	3	4	2
D	4	3	1

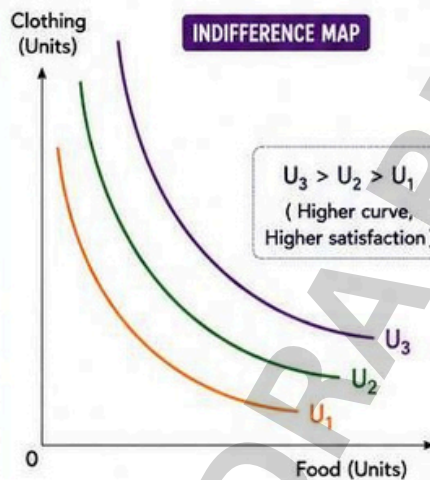
As Food increases, Clothing decreases to keep the same level of satisfaction (U_1).

INDIFFERENCE CURVE (U_1)



2. INDIFFERENCE MAP

- 1 It is a collection of indifference curves in which each curve corresponds to a different level of satisfaction.
- 2 Each indifference curve is a set of points and each point shares a common level of utility with the others.
- 3 Combinations of goods lying on indifference curves which are farther from the origin are preferred to those on indifference curves which are closer to the origin.



3. MARGINAL RATE OF SUBSTITUTION

The Marginal Rate of Substitution (MRS) is the rate at which a consumer is prepared to exchange goods X and Y, holding the level of satisfaction constant.

NOTE:-

- 1 Moving down the indifference curve the utility reduced from sacrificing the units of one product will be **equal** to the increase in utility from gaining of another product.
- 2 the marginal rate of substitution of X for Y (MRS_{xy}) is the slope of the indifference curve.

$$MRS_{xy} = \frac{MU_x}{MU_y}$$

4. ASSUMPTIONS UNDERLYING INDIFFERENCE CURVE APPROACH

- 1 Consumer knows his own tastes and preferences.
- 2 The consumer is rational and tends to take rational actions.
- 3 The consumer is capable of ranking all conceivable combinations of goods according to the satisfaction they yield.
- 4 Consumer choices are assumed to be transitive.
- 5 If combination A has more commodities than combination B, then A must be preferred to B.

5. PROPERTIES OF INDIFFERENCE CURVES

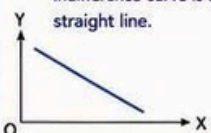
1. Indifference curves slope downward to the right.
2. Indifference curves are always convex to the origin.
3. Indifference curves can never intersect each other.

If they intersect, it would mean the same combination gives two different levels of satisfaction, which is impossible.
4. A higher indifference curve represents a higher level of satisfaction than the lower indifference curve.

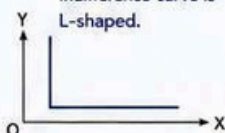
U_2 represents higher satisfaction than U_1
5. Indifference curve will not touch either axes.

EXCEPTIONS

(i) Perfect Substitutes
Indifference curve is a straight line.



(ii) Perfect Complements
Indifference curve is L-shaped.



Indifference curve analysis helps us understand how a consumer makes choices to maximize satisfaction with the given resources.



THE BUDGET LINE



1 a consumer, in his attempt to maximize satisfaction will try to reach the highest possible indifference curve.

2 But there is a budget constraint to reach to the highest level of satisfaction.

3 The budget constraint for two goods X and Y as:

$$P_X Q_X + P_Y Q_Y \leq B$$

BUDGET LINE TABLE

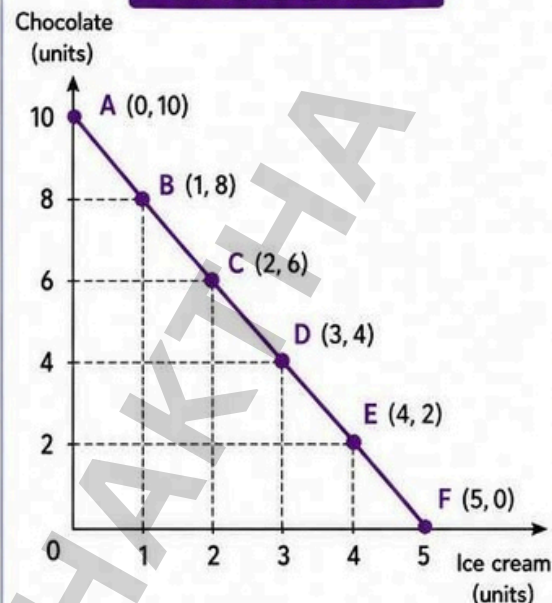
Combination	Ice cream (units)	Chocolate (units)
A	0	10
B	1	8
C	2	6
D	3	4
E	4	2
F	5	0

NOTE:-

The budget line shifts if

- 1 Price of the product change
- 2 Budget changes
- 3 Both price and Budget Change

BUDGET LINE GRAPH



The budget line shows all the combinations of Ice cream and Chocolate that can be purchased with a **given income**.



CONSUMER EQUILIBRIUM



1 A consumer is in equilibrium when he is deriving maximum possible satisfaction from the goods and therefore is in **no position to rearrange** his purchases of goods.

2 ASSUMPTIONS



a. The consumer has a given indifference map



b. He has a fixed money income which he has to spend wholly



c. Prices of goods X and Y are given and are fixed



d. All goods are homogeneous and divisible

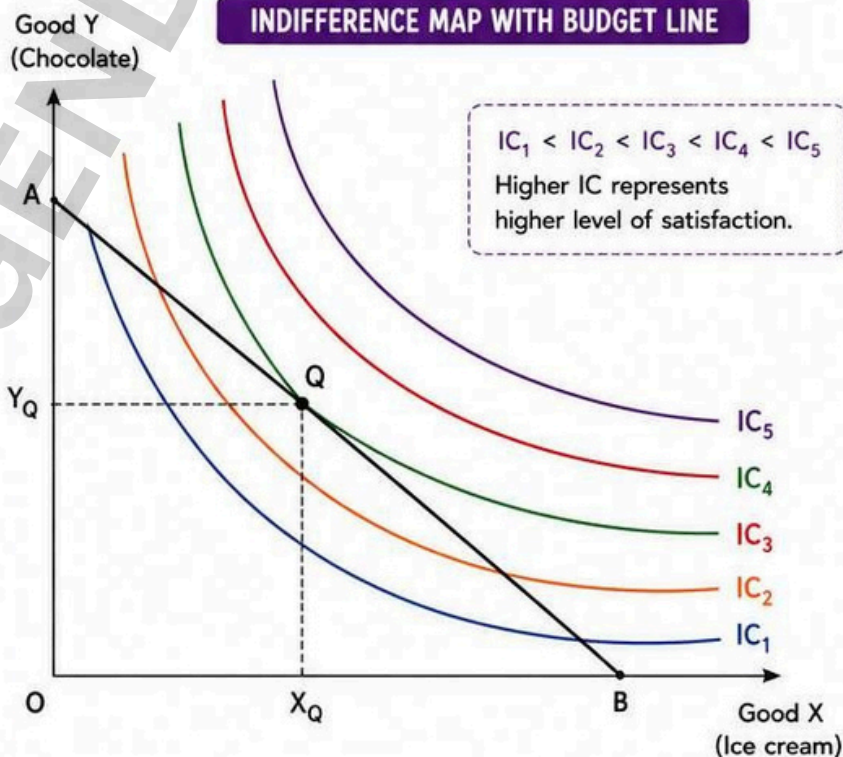


e. The consumer acts 'rationally' and maximizes his satisfaction.

NOTE:

- 1 Equilibrium point is that point where the IC is **tangent** to the Budget line.
- 2 At Tangency point the **slope** of IC is equal to Slope Budget line.
- 3 At equilibrium $\frac{MU_X}{MU_Y} = \frac{P_X}{P_Y}$

INDIFFERENCE MAP WITH BUDGET LINE



- ◆ The consumer is in equilibrium at point Q where IC₃ is tangent to the budget line AB.
- ◆ At point Q, the consumer gets maximum satisfaction with his limited income.
- ◆ He cannot reach IC₄ or IC₅ as they are beyond his budget.



SUPPLY



1. SUPPLY

a. Supply refers the amount of goods and services that the producer is **willing and able** to offer to the market at various prices at given period.

b. Like demand, it is also a **flow** concept.



2. DETERMINANTS OF SUPPLY

Determinant	Explanation (in 2 lines)
a. Price of the goods (Positive relation)	When the price of the good rises, producers earn more profit, so they are willing to supply more. When price falls, supply decreases.
b. Prices of related goods (Negative relation)	If price of alternative goods rises, producers shift resources to those goods, reducing supply of the original good. If price of alternative goods falls, supply of the original good increases.
c. Prices of factors of Production (Negative relation)	When prices of inputs like raw materials, labour, etc. rise, production cost increases and supply decreases. When input prices fall, supply increases.
d. State of technology	Better technology reduces cost of production and increases efficiency, leading to more supply. Poor technology reduces output and supply.
e. Government Policy	Favourable policies like subsidies, tax benefits, good infrastructure increase supply. Unfavourable policies like heavy taxes, restrictions reduce supply.
f. Expectation	If producers expect prices to rise in future, they increase current supply. If they expect prices to fall, they reduce current supply.
g. Number of sellers	More sellers in the market lead to greater total supply. Fewer sellers result in less supply.

3. LAW OF SUPPLY

a. It states that under ceteris paribus conditions there is **positive relation** between price and supply.

b. SUPPLY SCHEDULE

It shows different quantities of a good that producers are willing and able to supply at various prices during a given period.

Price (Rs.)	Quantity Supplied (Units)
10	0
20	10
30	20
40	30
50	40
60	50

c. SUPPLY CURVE

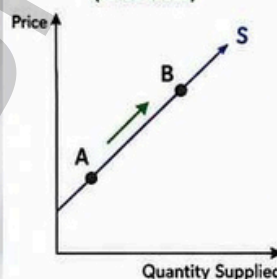
A supply curve is a graphical representation of the supply schedule.



d. EXPANSION AND CONTRACTION IN SUPPLY

Movement along the same supply curve due to change in price.

Expansion in Supply (Price Rises)

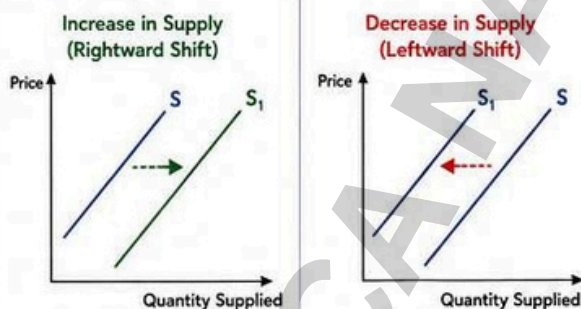


Contraction in Supply (Price Falls)



e. INCREASE AND DECREASE IN SUPPLY

Shift of the entire supply curve due to change in factors other than price.



Factors causing shift:

- Prices of inputs
- Technology
- Government policy
- Expectations
- Number of sellers

f. ELASTICITY OF SUPPLY

It measures the responsiveness of quantity supplied to a change in price of the good.

Types of Price Elasticity of Supply

Type	Condition (E_s)	Meaning	Graph
1. Perfectly Inelastic Supply	$E_s = 0$	Quantity supplied does not change with change in price.	
2. Relatively Inelastic Supply	$0 < E_s < 1$	Quantity supplied changes less than proportionate to change in price.	
3. Unit Elastic Supply	$E_s = 1$	Quantity supplied changes in the same proportion as change in price.	
4. Relatively Elastic Supply	$E_s > 1$	Quantity supplied changes more than proportionate to change in price.	
5. Perfectly Elastic Supply	$E_s = \infty$	Quantity supplied changes infinitely with no change in price.	



NOTE:

- The law of supply holds good only when other factors remain constant (ceteris paribus).
- The upward slope of supply curve shows that higher the price, higher is the quantity supplied.