Chapter 1
Nature and Scope of Business Economics

1. Economics is also known as **'Political Economy'/ Applied Economics.**
2. Business Economics is referred as **Managerial Economics**, generally refers to the integration of economic theory with business practice.
3. Basic Economics problem **unlimited wants,** and **Scarce resources.**
4. Resources shall be allocated to their **highest valued uses.**
5. **Adam Smith** – Wealth Definition**- An Inquiry into the Nature and Causes of the Wealth of Nations'** (1776).
6. **Marshall and Pigou** – Welfare/ Mankind definition
7. **Robbins** – Scarcity Definition
8. **Samuelson** – Growth Definition
9. **Decision making -** process of **selecting an appropriate alternative** that will provide the most efficient means of attaining a desired end, **from two or more alternative** courses of action'.
10. ***Decision making*** arises only if there is choice available.
11. No alternatives no decision making.
12. Means- Resources & Ends - Wants
13. **Joel Dean** defined Business Economics as best use of an **organization's scarce resources**.-
14. **Economic theories are hypothetical** and **simplistic** in since based on simplifying assumptions.
15. Business Economics is not only valuable **'not-for-profit' organizations also**
16. Micro Economic – Smaller Units including Industry. Also known as Price Theory.
17. Macro Economics – Larger ECONOMIC aggregates. Also known as Income Theory.
18. **The Nature of Business Economics is described as under-**
    (a) **Business Economics is a Science- Explains** cause and effect relationships.
    (b) **Business Economics is an art** -application of rules and principles
    (c) **Micro Economics based and Macro Analysis based**
    (d) **Inter-Disciplinary-** Integrates the tools of decision sciences such as Mathematics, Statistics and Econometrics with Economic.
    (e) **Pragmatic Approach-**
19. **Normative and positive –**

Positive Economics or Pure economics	Normative Economics
Descriptive in nature. **It states 'what is'**	**Prescriptive** in nature **'what ought to be'.**
It explains **cause & effect** relationship and there will be no value judgments/suggestions.	It passes **value judgments /suggestions** and offers advice.
According to **Robbins**, Economics is neutral between ends	It is based on welfare economics - (**Marshall &Pigou**)

20. **Scope of Business Economics**

a. **Microeconomics applied to operational or internal Issues-** *issues within the organization and fall within the purview and control of the management.*

1. Demand Analysis	2. Demand Forecasting	3. Cost analysis
4. Theory of Capital and Investment Decisions	5. and Uncertainty Analysis	6. Market Structure and Pricing Policies
7. Resource Allocation	8. Production analysis	9. Inventory Management
10. Profit analysis		

b. **Macroeconomics applied to environmental or external issues-** *issues out of preview of an organization* The major macro-economic factors relate to

1) The type of economic system.
2) Stage of business cycle.
3) The general trends in national income, employment, prices, saving and investment.
4) Socio-economic organizations like trade unions, producer and consumer unions and cooperatives.
5) Social and political environment.

Central Economic Problems

1. All countries face the problem of scarcity because their resources are **limited** and these resources have **alternative uses.**
2. If a resource has only a single use, then also the economic problem would not arise.
3. The central economic problem is further divided into four basic economic problems.
   a) **What to produce? Which goods and in what quantities**
   b) **How to Produce? Method of production**,(labour- intensive or capital – intensive)
   c) **For whom to produce?** How the G&S should be distributed among members of the society. Also **shares of different people** in the national product.
   d) **What provisions (if any) are to be made for economic growth?-saving and investment**
4. **Understanding different types of Economies**

Particular	Capitalist economy	Socialist economy	Mixed Economy
Also Known as	Free market economy or laissez-faire economy	Karl Marx and Frederic Engels in their work 'The Communist Manifesto' published in 1848	Depends on both markets and govt.
Most imp Feature	Private Ownership	Collective Ownership	*Include the best features of both the controlled economy and the market economy while excluding the demerits of both.*
Other points	Private property is the mainstay. Profit motive is its driving force		
How CEP are solved	Impersonal forces of market demand and supply or the price mechanism		
What To produce	Decided by consumers	Decided by CPE	

How to produce	Cost of production minimum. Labor or capital Intensive		
For Whom to produce	Those who have buying capacity		
What provision are to be made?	Depends upon level of interest rate for consumer and rate of return in Market for business firm		
Characteristics of each type of economy	a. Right to private property b. Profit Motive c. Consumer Sovereignty d. Absence of Government Interference. e. Self-regulating through price mechanism. f. Lower cost of production g. Better standard of living of consumers h. Right to private Property	a. Collective Ownership of means of production b. The resources are used for socio-economic objectives. c. Centrally planned economy d. Absence of Consumer Choice- e. Relatively Equal Income Distribution- f. Absence of Competition. g. Equitable distribution of wealth and income h. Rapid and balanced economic development i. Unemployment is minimized, j. Absence of profit motive k. High Social security	a. Planned Economy b. Comparatively greater economic and social equality and freedom c. No cut throat competition
	a) Precedence of property rights over human rights. b) Inequality and social injustice c) Wide differences in economic opportunities. d) Less of merit goods e) Unplanned production. f) Waste of productive resources g) Formation of monopolies	a) Inefficiency and delays, corruption, red-tapism, favoritism, b) Government Monopoly c) Takes away right of private property. d) No incentive for hard work e) Administered prices f) Consumers have no freedom of choice.	

Chapter 2A
Consumer Behaviour & Utility Analysis

1. Utility is **want satisfying power** of a commodity is called as utility.
2. Utility is **subjective** term and differs from person to person
3. **Utility does not mean usefulness.**
4. Utility is **ethically neutral.**
5. **Difference Between Cardinal and Ordinal Approach**

	Cardinal Approach	Ordinal Approach
Assumptions	**Measurable** and **quantifiable**	Utility is **not quantifiable**
Rationale	Human satisfaction **can be expressed in monetary terms,**	Human Satisfaction is **psychological phenomenon**
Economists	**Alfred Marshall**	**Hicks and Allen**

CARDINAL APPROACH

6. **Marginal Utility-** Additional utility derived from additional unit of a commodity.
   Marginal Utility can also be defined as **change in the total utility resulting from one- unit change ($TUn-TU_{(n-1)}$) or, Change in Utility/ change in Qty.**
7. **Assumptions under Marginal utility analysis and cardinal approach**
   a) **Cardinal Measurability of Utility-** Utility is measurable and quantifiable.
   b) **Comparability of Utility across the goods-** Satisfaction derived by a person from different commodities can be compared.
   c) **Independence of Utilities-**
   d) **Constant Marginal Utility of Money-**

8. **Law of diminishing Marginal utility** states -*as a consumer consumes more of stock, the extra satisfaction that he derives from an extra unit, declines with the increase in consumption of that item.*

9. If same goods have capacity to satisfy other wants then their marginal utility would not have decreased.

10. **Conclusion as per law of Diminishing marginal utility**
    a) Total Utility increases at **diminishing rate.**
    b) Marginal Utility is **Downward Sloping curve**, moving from **left to right**
    c) Marginal utility is **negatively sloped curve.**
    d) ***Where Marginal Utility is negative, Total utility decreases.***
    e) MU **goes on decreasing** & **becomes negative beyond a certain point of time.**

11. Significance of Law

a) Law of diminishing marginal utility forms the basis of **Law of demand.**
b) Marginal utility varies **inversely with the supply.**
c) MU of the goods increases as the quantity of **complementary goods** increases
d) MU of the goods decreases as the quantity of **substitute goods** with the consumer increases.

12. Law of Equi- marginal utility - **As per the law of Equi- marginal utility**, If marginal utility of money spent on commodity X is greater than marginal utility of money spent on commodity Y, then the consumer will withdraw some money from purchase of Product Y and will spent on purchase of X, till MU of money in two cases becomes equal.

13. Consumer's Equilibrium: Consumer is in equilibrium when **price of the commodity = MU.**

$$\frac{MU_X}{Price_X} = \frac{MU_Y}{Price_Y} = \frac{MU_Z}{Price_Z}$$

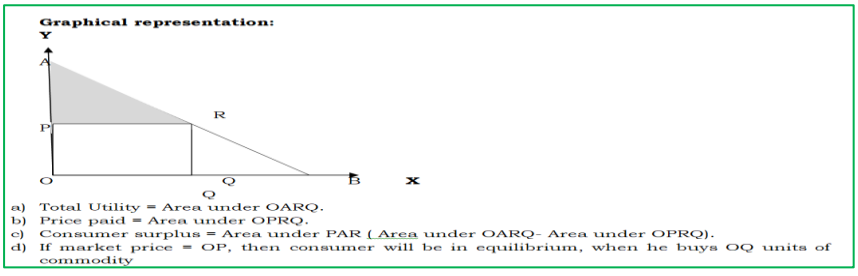
14. The consumer will attain maximum satisfaction, and will be in equilibrium when **MU of money spent on various goods that he buys, are equal.**

15. Consumer Surplus: What a consumer is ready to pay – what he actually pays.
The consumer continues to buy a commodity till MU = Price of the commodity

16. Limitations to Consumer surplus

a) **Relevant only if cardinal approach to measurement of utility** is assumed.
b) Consumer's surplus cannot be **measured precisely**
c) Consumer's surplus derived is affected by availability of **substitutes.**
d) In case of **necessaries,** consumer's surplus is infinite
e) Not applicable to **prestigious items**
f) It is assumed that MU of the **money is constant,** which is unrealistic.

17. Graphical Interpretation: refer schedule above (2.1)



Ordinal Approach- Hicks and Allen Approach

18. Indifference curve analysis- Assumptions

a) **Ordinal Approach to utility- UTILITY is not measurable in monetary terms.**
b) **Ranking and preferences-**
c) **Monotonic Preference-** Customer prefers that combination which has more commodity in combination and tries to maximize his satisfaction.

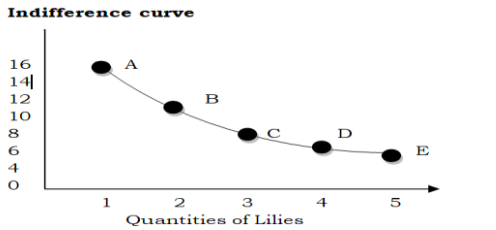
19. Indifference curve analysis

a) An Indifference curve is a curve which represents all those combination of goods which gives **same satisfaction** to the consumer.

b) He remains **indifferent** among those combinations.

Example:

Combin-ation	Roses	Lilies	Marginal Rate of substitution (MRS)
A	15	1	-
B	11	2	4 Roses per lily
C	8	3	3 Roses per lily
D	6	4	2 Roses per lily
E	5	5	1 Roses per lily



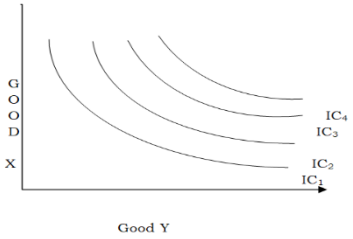
20. Indifference Map:

a) A set of indifference curves is called as **Indifference Map.**

b) An indifference map depicts complete **picture of customer's taste and preferences.**

c) The consumer is *indifferent for any combination lying on same IC.*

d) However he prefers **combination on Higher IC to combinations on lower IC,**



21. Marginal rate of Substitutions

a) Marginal rate of substitutions (**MRS**) indicates how much of one commodity is substituted for how much of another commodity.

b) MRS is indicated by **Slope of IC curve** at a particular point.

c) MRS show **decreasing trend** similar to concept of diminishing marginal utility.

d) MRS is constant for perfect Substitute and IC is straight line

e) IC curve is L shaped for complimentary goods.

22. Property of indifference curve

a) **Downward sloping** to **right- negatively sloped**.

b) **Convex to the origin**- due to **diminishing nature of MRS**.

c) All point on an **IC gives same satisfaction**-

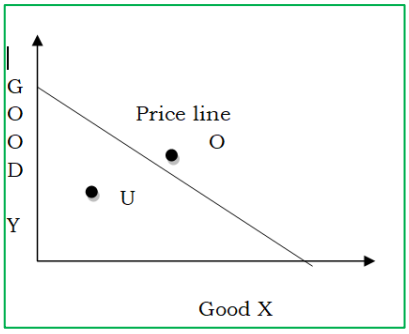
d) Higher IC gives Higher level of satisfaction-

e) **Non Intersecting**

23. Budget line - Price line, Price opportunity line, Price- income line, Budget constraint line.

a) A Budget line shows all those combinations of two goods which a consumer **can buy spending his given money income on two goods at their given prices.**

b) Budget line is also called as Every point on Budget line represents **full** spending by the consumer.



24. Consumer Equilibrium under indifference curve approach

25. Assumptions under Ordinal Approach:

a) The consumer has fixed money income which he has to spend wholly on **2 Goods**

b) Prices are constant.

c) The consumer has given an indifference map which shows his scale of preferences

26. Relationship of MRS and price at equilibrium,

Chapter 2B – Demand Analysis

1. **Demand = Willingness (Desire)** and **ability (Resources/Means)** + **willingness to use those means**
2. The quantity demanded is a **flow.**
3. **Some Important Types of Demand**
   a. **Cross demand-** Demand due to availability of **Substitute goods** or **complementary goods**.
   b. **Short run demand-** refers to the demand with its **immediate reaction**
   c. **Long run demand-** refers to demand which exists over a long period.
   d. **Derived demand**-The demand because of the **demand for some other commodity called 'parent product',**
   e. **Autonomous demand- Independent of the demand for other goods.**
4. **Factors of Demand**
   a. **Price of the commodity: inversely related**
   b. **Complementary goods Inversely Related**
   c. **Competing goods or substitutes- Directly Related**
   d. **Income of the consumer-**

Particulars	Income Rise	Income Falls
Generally		
Inferior		
Necessity		
Importance of Non Durable		
Importance of Durable		

   e. **Tastes and preferences of consumers-**
   f. **Demonstration effect' – genuine influence**
   g. **Bandwagon effect**
   h. **snob effect'.**
   i. **Veblen effect -**Highly priced goods are consumed by status seeking rich people to satisfy their need for conspicuous consumption.
   j. **Size of the population**-Directly related & **Composition of population:**

5. **Law of Demand – Qualitative Statement**
   (a) Other things being equal, **inverse relationship between price and quantity demanded,**

Features of the Demand Curve

(a) **Slopes downwards from left to right**
(b) **Negatively sloped**
(c) May sometimes be a **straight-line** or sometimes a **free hand curve**
(d) Demand curve is also called **Average Revenue curve (ARC).**
(e) The Market Demand curve is **a lateral summation** of individual Demand curve.

6. **Rationale of the Law of Demand**
   a) Law of diminishing marginal utility
   b) **Substitution effect:**-When the price of a commodity falls, it becomes **relatively cheaper** than other commodities.
   c) **Income effect:** As a result of fall in the price of the commodity, consumer's **real income or purchasing power** increases.
   d) **Arrival of new consumer: Rise in number and rise in buying capacity**
   e) **Different uses:**

7. **Exceptions to the Law of Demand**
   a) **Conspicuous goods: Prestige value** or **snob appeal** or **conspicuous consumption** or **Veblen effect** or **prestige goods effect**.
   b) **Giffen goods: Inferior goods** , with **no close substitutes** easily available and which occupy a substantial place in consumer's budget are called '**Giffen goods**'
   c) **Conspicuous necessities:** The demand for certain goods is affected by the **demonstration effect** of the consumption pattern of a social group to which an individual belongs.
   d) **Future expectations about prices & Speculative goods**
   e) **Irrational consumer & Ignorant consumer:**
   f) **Demand for necessaries**

8. **Expansion and contraction in Demand VS Increase and decrease in Demand**

Term	Meaning	Effect
Expansion/ Extension of Demand	Quantity demanded **Increases**, due to decrease in price	**Downward** movement along same Demand curve
Contraction of Demand	Quantity demanded **decreases**, due to increase in price	**Upward** movement along same Demand curve
Increase in DD	Quantity demanded **Increases**, due to change in any factor other than price	**Rightward Shift** of Demand Curve
Decrease in DD	Quantity demanded **decreases**, due to change in any factor other than price	**Leftward Shift** of Demand Curve

9. **Elasticity of Demand**
   - Elasticity of demand is defined as the **responsiveness of the quantity demanded of a good to changes in one of the variables on which demand depends.**
   - *the* **percentage change in quantity demanded** *divided* **by the percentage change in one of the variables** *on which demand depends*

10. **Methods of calculation of Price Elasticity of Demand**

Methods	Formula
Percentage change or proportional Method	
Point Elasticity- **Method of derivative**	
Point Elasticity –**Method of Graph**	
Arc Elasticity Method	

Total Outlay	Price	Total Exp.	Direction	Nature
Case 1	Increase	Increase	Same	
Case 2	Decrease	Decrease	Same	
Case 3	Increase	Decrease	Opposite	
Case 4	Decrease	Increase	Opposite	
Case 5	Increase	No Change		
Case 6	Decrease	No Change		

11. **Interpretation of Elasticity of Demand**

Description	Numerical value	Interpretation	Nature of Curve	
Perfectly inelastic	EP =0	Qty. demanded does not changes as price changes	Vertical line Parallel to Y axis	
Inelastic or less elastic	0<EP <1	Qty demanded changes by **smaller percentage** than price	Relatively steeper Demand curve	
Unit Elastic	EP =1	Qty demanded changes exactly by same % as price	45 degree straight line Or rectangular hyperbola	
Elastic	1<EP <∞	Quantity demanded changes by larger percentage than price	Relatively flatter demand curve	

Perfectly elastic	EP =∞	Small change in price will bring infinite change in quantity demanded	Parallel to X axis	

12. **Determinants of price Elasticity**

Factors	Explanation	Elasticity
Nature of the commodity	Necessities.	Inelastic
	Luxurious goods.	Elastic
Level of income	Goods demanded by high income group.	Inelastic
	Goods demanded by low income group.	Elastic
Proportion of expenditure	Commodity on which Proportion of expenditure is low.	Inelastic
	Commodity on which Proportion of expenditure is large.	Elastic
Level of price and change in price	When price level of a commodity is too high and change in price is smaller.	Inelastic
	If price level is low and change in price is large.	Elastic
Number of uses	Commodity which has limited uses.	Inelastic
	Commodity which used to satisfy several wants.	Elastic
Substitutes	Commodity which have less substitutes.	Inelastic
	Commodity having several substitutes.	Elastic
Urgency	Commodity which is required urgently.	Inelastic
	Commodity which is not required urgently.	Elastic
The Period	Demand for commodity is inelastic in long run.	Inelastic
	Demand for commodity is elastic in short period.	Elastic
Tied demand or Joint demand	Demand for those goods, which are tied to others.	Inelastic
Consumer habits	Demand for commodity used by habitual consumer.	Inelastic

13. **Income Elasticity of Demand**

Responsiveness of quantity demanded of a good to changes in the income of consumers	$E_i = \frac{\text{Percentage change in quantity Demand}}{\text{Percentage change in income}} \times 100$

14. **Income Elasticity of Demand**

Type	Relation between income & demand	Example	Formula	Curve
Positive Income Elasticity	Positive	Normal and Luxury goods	Ey = 1 Ey > 1 Ey < 1	

Negative Income Elasticity	**Inverse**	Inferior goods	Ey < 0	
Zero Income Elasticity	**Constant**	Necessaries goods	E = 0	

15. **Cross Elasticity of Demand**

Cross elasticity of demand is degree of responsiveness of demand for one good to a change in price of other good.

$$Ec = \frac{\%\Delta\ Qx}{\%\ \Delta\ Py}$$

Positive Cross Elasticity	**Direct or Positive relation**	**Substitute Tea & Coffee,**	CED = 1 CED > 1 CED < 1	
Negative Cross Elasticity	**Inverse relation**	**Complimentary Car & Petrol**	**CED < 0**	
Zero Cross Elasticity	**Constant**	**Unrelated Cloth & salt**	**CED = 0**	

Chapter 2C- Supply Analysis

1. Supply refers to amount of a commodity seller is
   - **Able to sell -** depends upon stock of a commodity
   - **And willing to sell**- depends upon price of a commodity

   .

2. **Determinants of supply on Factors affecting supply**

Factors	Relation	Factor	Relation
Price	Direct	Cost of Production***	**Inverse**
Stock	Direct	Price of related Commodity	**Inverse**

3. **Law of supply** states that "other things being equal" **there is a direct relationship between price and supply.**

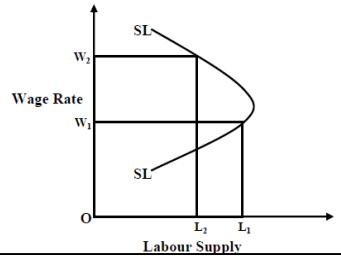
4. **Features of Supply curve**
   a) Slopes upwards from left to the right.
   b) Positively slope
   c) Straight—line or sometimes a free hand curve.
   d) The Market Supply Curve is a lateral summation (totaling) of Individual Supply Curves

5. **Stock is prospective supply**
6. **Elasticity is quantitively statement while law of demand and law of supply is qualitative statement**

7. **Increase and Decrease VS Expansion and contraction in the Quantity Supplied**

Increase In SS	Decrease In SS	Expansion in SS	Contraction in SS
Increase in Supply take place as a result of changes in **factors other than price**, while price remains constant.	Decrease in Supply take place as a result of changes in **factors other than price**, while price remains constant.	Rise in the ***quantity supplied*** takes place **as a result of changes in price**	Fall in ***the quantity supplied*** takes place **as a result of changes in price**
_____**Shift**	_____**Shift**	Upward Movement along same SS curve	Downward Movement along same SS curve

8. Exceptions to law of Supply

Labour Supply This is Backward bending supply curve	
Need for cash-	Seller may sell at lower price and supply more Qty if needs more cash
Savings	If a person wants a fixed amount of income in the form of interest then, he will save more at a lower rate of interest and save less at a higher rate of interest
Future Expectations	With a small rise in price, if seller expects a further rise in future he will decrease the supply & vice-versa

9. **Elasticity of Supply** refers to degree of **responsiveness of supply to change in its price**.
10. Elasticity of Supply refers to the *ratio between percentage or proportionate change in supply and percentage or proportionate change in price.*

11. Methods of measurement of Elasticity of supply

Percentage / Proportionate Method	Point Method	Arc Elasticity

12.

Perfectly Elastic Supply	Relatively Elastic Supply Or, More Elastic	Unitary Elastic Supply	Relatively Inelastic Supply Or, less Elastic	Perfectly Inelastic Supply
Es = ∞	Es> 1	Es = 1	Es< 1	Es = 0

Chapter 3A – Production Concepts

1. Production = **Creation of Utility or Addition of utility.**
2. **Human Can not create Matter/ element of earth**
3. **Methods of Creation of Utility-**
   a) Form Utility
   b) Place Utility
   c) Time Utility
   d) Personal Utility

4. **Factors Of Production**

I. Land

a) Every free gift of nature
b) No Social Cost: Since no sacrifice is made in creation of land.
c) Permanent factor: cannot destruct - **Ricardo**
d) Passive factor:
e) Heterogeneous factor and site value differs from place to place
f) Mobility: Geographically land is _____ but occupationally it is _____.
g) Supply: Supply of level is perfectly _____from nation's POV while Elastic from_____ POV.

II. Labour

a) Mental or physical exertion to produce G&S, for economic reward.
b) Perishable Nature- Labourer cannot store his Labour
c) Self- Source- Labour is inseparable from the Labourer himself.
d) Peculiar relationship between labour supply and Wage rate- Backward bending Supply curve
   i. **Direct Relationship: Generally**
   ii. **Reverse Relationship at Higher Prices**
   iii. **Reverse Relationship at Lower Prices**

III. Capital

a) Part of wealth which is used for further production of wealth, or which yields an income.
b) Capital is a **stock concept**
c) Capital refers to only that part of wealth, that is used for further production. Therefor not all wealth is capital but all capital is wealth.
d) Produced means of Production or Man—made means / factor
e) Capital is Mobility
f) Perishable factor- that's why we charge depreciation

g) **Types of Capital:**

Fixed Capital:	Working Capital:	Sunk Capital:	Floating Capital:	Money Capital:	Real Capital:

j) **Stages in capital Formation**

i. **Savings:** Ability to save depends upon the income capacity of individual.
ii. **Mobilization of Savings:** network of banking and other financial institutions
iii. **Investments:**

IV. Entrepreneur-

a) Person who **combines the various factors of production** in the right proportions, **initiates the process of production** and **bears the risk involved** in it.
b) Also Called as **Organiser, Manager** or the **Risk—Taker.**

c) **Functions of an Entrepreneur**

i. **Initiating and Running the business:**
ii. **Risk—Bearing:**
iii. **Innovations: MOST IMP Function.**

d) Enterprise Objective

i. **Organic Objectives** – Survival then Growth and Expansion
ii. **Economic Objectives-** Profit Maximizing Objective
iii. **Social Objectives:** Avoid anti—social practices, opportunities for gainful employment , continuous and sufficient supply of unadulterated goods ,does not cause any type of pollution.
iv. **Human Objectives:** All the objectives towards its employees
v. **National Objectives:**

PART B – PRODUCTION FUNCTION

1. Production Function is the **functional relationship** between **physical inputs and physical outputs**
2. The maximum amount of output that can be produced with given quantities of inputs, in the existing state of technology.
3. Production Function gives the minimum quantities of various inputs that are required to yield a given quantity of output.
4. **Cobb-Douglas Production Function**

a) Output is manufacturing production and **inputs used are Labour and Capital.**

b) Cobb-Douglas Production Function is $Q=KL^{a}C^{(1-a)}$, **Lab Contribution $\frac{3}{4}$ and Capital contribution $\frac{1}{4}$.**

5. Short run and long run production function

	Short Run	Long Run
Fixed Factor	Only one Factor of Production is kept constant or fixed. [Generally and, Capital or Enterprise is taken as fixed.]	There is no Fixed Factor of Production in the all the factors production are variable.
Proportion between Factors	Production is increased by increasing proportion of variable factor only, keeping fixed factor constant	Production is changed by changing all the Factor of Production simultaneously
Theory .	Law of Variable Proportions is applicable in the short—run.	Law of Returns to Scale is applicable in the long—run.

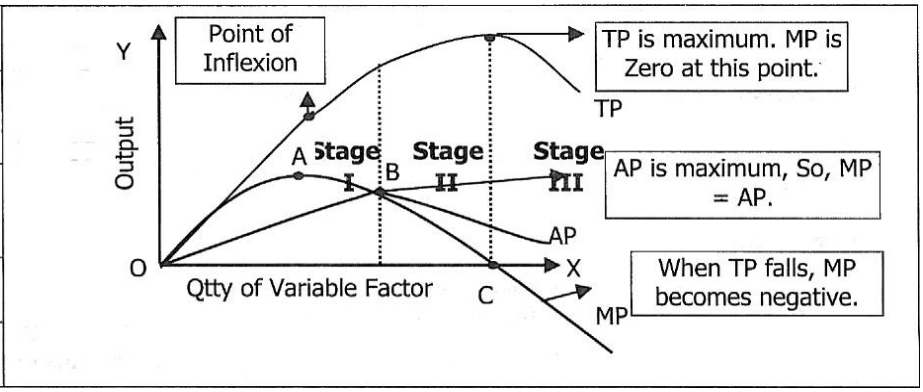
6. Assumptions:

- It is related to a particular unit of time.
- The technical knowledge during that period of time remains constant.
- The factors of production are divisible into most viable units.
- The producer is using the best technique available.

7. Understanding Short term production function

Average Production	AP = TP/Units of variable input (labour)
Marginal Production (MP)	Additional TP due to an additional unit of input. MP = Change TP / change in Labors Or, Mp = MP = TPn - TPn_1
Relationship between AP and MP 	1. Both AP and MP can be calculated by TP. 2. When AP rises then MP also rises but MP>AP. 3. When AP is maximum then MP =AP or say MP curve cuts the AP curve at its maximum point 4. When AP falls then MP also falls but MP<AP. 5. There may be a situation when MP decreases and AP increases but opposite never happened.

Rule	Relationship between TP and MP
1	When TP increases at an **increasing rate**, MP shows an increase.
2	When TP increases at a **decreasing rate**, MP shows a decrease.
3	When TP is **maximum**, MP is **zero**.
4	When TP **decreases**, MP becomes **negative**.



Relationship between AP & MP	a. When AP rises, MP >AP. b. When AP is maximum, MP =AP. c. MP declines slightly earlier than AR d. MP Curve cuts AP Curve from above when AP is maximum. e. When AP decreases, MP <AP. f. MP Curve declines steeply than AP. g. MP may become zero and negative later, but AP continues to remain positive
Note: The point on the TP Curve when MP is maximum, is called Point of Inflexion	

8. **Law of Variable Proportion/ Law Of Proportionality/ Law Of Diminishing Returns /Law Of Diminishing Marginal Physical Productivity.**

9. **Explanation to Various Stages**

Explanation to Stage 1	Explanation to Stage 2-	Explanation to Stage 3
01. Full Use of Fixed Indivisible Factors- 02. Efficiency of Variable Factors- 03. No Scarcity of Variable factor 04. Reaching the right combination	01. Inadequacy of Fixed Factor 02. Less efficiency of Variable Factor 03. Imperfect Substitutes 04. Wrong combinations	01. Variable Factor becomes too excessive, Due to this, the total output falls instead of rising. 02. Stage III is called Law of Negative Marginal Returns
1. Since the second stage is the most important, So stage II will be stage of operation and because of that in practice we normally refer to the law of variable proportion as the law of diminishing returns. 2. Note: Stage II is called Law of Diminishing Returns since MP and AP both show decreasing trend. However, both MP and AP remain positive. 3. Stage I and III is the stage of economic absurdity or stage of economic nonsense		

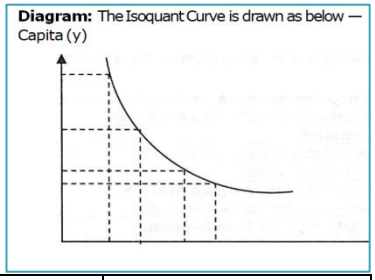
Law of Return to scales- Operates in Long Run Only

1. All factor inputs in the production function can be changed. The behavior of output consequent to change in the quantities of all factor inputs in the same proportion (i.e. keeping, the factor proportions unaltered) is known as 'returns to scale'.

Increasing Returns to Scale:	Simultaneous increase in ***all*** the inputs in the same given proportion result in a more than proportionate increase in the output.	
Constant Returns to Scale:	1. Proportionate increase in ***all*** the inputs results in proportionate increase in output. 2. Constant return to scale is also called 'Linear Homogeneous Production	

	Function'.	
Diminishing Returns to scale:	Simultaneous increase in ***all*** inputs in the same given proportion result in **a less than proportionate** increase in the output	

2. Internal Economies and Diseconomies to Scale- Use of greater degree of division of Labour and specialised machinery at higher levels of output are generally termed as **Internal Economies.**



Technical	**Managerial**	**Commercial**	**Risk— bearing**	**Financial**
All these factors are within the control of an organization and thus are internal Factors. These factors initially acts Economies but after a pint becomes diseconomies				

3. External Economies are explained below —

Cheaper Raw Materials and Capital Equipment for entire industry	Technological development for entire industry	Development of Skilled Labour	Growth of ancillary industries	Better transportation and marketing

4. External Diseconomies:

Rise in Factor Prices:	Higher Costs:	Government Restrictions:

Production Optimisation

1. **Isoquant Curve:- "Iso" means equal** and **"quant" means quantity.**
2. **MRTS=Marginal Rate of Technical Substitution**
   (a) MRTS always shows diminishing trend.
   (b) MRTS= Change in units of capital/ change in units of labour

Features of Isoquants:

(a) Isoquants are **convex** to the origin, due to diminishing trend of MRTS
(b) Isoquants are **negatively sloped**, i.e. downwards from left to right.
(c) Isoquant **do not touch either axis.**
(d) Isoquants **need not be parallel.**
(e) Two Isoquants cannot cut each other, i.e. Isoquants are **non—intersecting.**
(f) An Isoquant lying **above** and to the **right** represents a **higher level of output.**

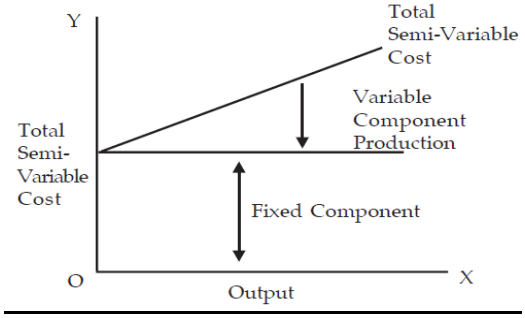
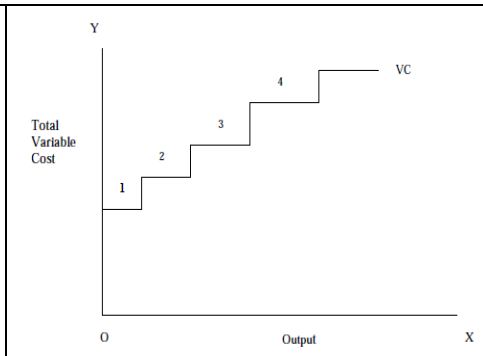
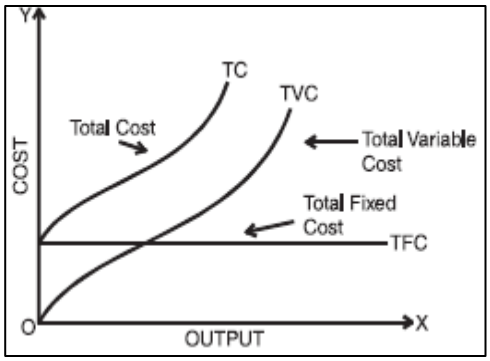
3. **Isocost Lines: Equal—Cost Lines or Budget Line or the Budget Constraint Line.** Isocost Line shows the various alternative combinations of two Factor Inputs, which a Firm can buy with given amount of money.
4. **Production Optimisation**

Meaning

1. In other words, **cost analysis is concerned with the financial aspects of production.**

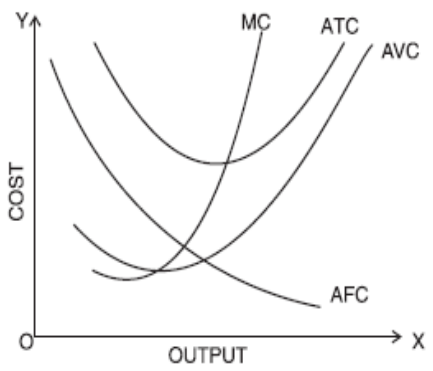
2. **Types of cost**

Name	Explanation
• Explicit cost • Out-of-Pocket Costs • Outlay Costs. • Accounting Costs	1. Costs which **involve cash payment** towards factors of production. 2. **Recorded in books** of accounts.
• Implicit cost • Notional cost • Imputed cost • Opportunity Costs.	1. Costs **do not involve any cash payment** to outsiders. 2. It is the monetary reward for all factor of production owned by entrepreneur himself 3. **Not recorded in books** of account.
Economic Costs	Explicit Costs + Implicit Costs.
Opportunity Cost	1. It refers to the value of **sacrifice made**, or benefit of **opportunity foregone** in accepting a **next best alternative** course of action. 2. Opportunity Costs **do not involve any cash payment** as such. 3. It is considered **only for decision—making** and analytical purposes.
• Direct cost • Traceable cost	1. Direct costs are those which have **direct relationship with a component of operation** . 2. They can be generally **quantified and expressed per unit of output**.
• Indirect cost • Non-traceable cost	1. Indirect costs are those which are **not easily and definitely identifiable** in relation to a plant, product, process or department. 2. Factory Rent, Electric Power, and other Common Costs incurred for general operation of business benefiting all products jointly.
Historical cost / Sunk Cost	Historical cost refers to the cost **incurred in the past** on the acquisition of a productive asset such as machinery, building etc.
Incremental cost	Incremental cost refers to the **additional cost** incurred by a firm.
Private cost	**Private costs** are costs actually incurred or provided for by firms and are either **explicit or implicit**.
Social Cost	1. **Social cost =private cost + external cost.** 2. It includes the cost of resources for which the firm is not required to pay price such as atmosphere, rivers, roadways etc. and the cost in terms of dis-utility created such as air, water and environment pollution.

Type	Nature
Fixed Costs	1. Fixed Costs are costs that do not vary with output. 2. They are period—related. 3. They are incurred even at zero level of output.
Variable Costs	1. Variable Costs are costs that vary, based on the level of output. 2. They are product—related.
Marginal Costs	1. Marginal Cost is the addition made to the total cost by production of an additional unit of output. 2. Marginal Costs per unit = $\frac{\text{Difference in Total Cost (TC) between two output levels}}{\text{Difference in Output Quantity at those levels}}$ 3. $TC_n - TC_{n-1}$
Cost Function	**Mathematical relationship** between cost of a product and the various determinants of cost
Total Fixed cost	TFC is parallel to X-axis.
Total Variable cost (TVC)	It has inverse's' shape and *start from origin.*
Semi-variable	There are some costs which are neither perfectly variable, nor absolutely fixed in relation to the changes in the size of output.
	 
Short run Total cost behaviour	1. TVC increases with the increase in output but rate of increase is changing. 2. Initially TVC increases at decreasing rate but after some time it increases at increasing rate. 3. Behaviour of TVC is determined by law of variable proportion. 4. TC increases with increase in output. Changes in TC are determined by TVC. 5. TVC curve is upward slopping. Initially it is fatter and later on steeper. 6. TC curve is upward sloping starting from y-axis. 

4. Short Run Average Cost

Average Fixed Cost (AFC)	1. **TFC/Q.** 2. The general shape of the **AFC curve is downward sloping** it does not touch the X-axis as **AFC cannot be zero.** 3. It is **not 'U' shape.** This curve is also called **Rectangular Hyperbola.**
Average Variable Cost (AVC)	1. **TVC/Q.** 2. It has **'U' shape.**
Average Total Cost (ATC)	1. **TC/Q or AFC+AVC.** 2. The ATC curve is **'U' shape** due to law of variable proportions.
Marginal Cost (MC)	1. Marginal cost is the change in total cost due to change in the output. 2. MC= Change in Total Cost / Change in Qty. produced 3. MC = Change Total Variable Cost / Change Qty. produced. 4. The MC curve is also **'U' shape**
Behavior of Average - costs in Short - Run	• AFC goes on diminishing with the increase in output but it never becomes zero. • AVC initially declines but later on goes on increasing. • ATC initially decreases, constant for a while & finally goes on increasing. • MC initially decreases & finally increases. • The point at which ATC is minimum. It is equal to MC. • AFC curve is a 'rectangular hyperbola' because AFC x Q is always constant.



5. Relationship between Average Cost and Marginal Cost Curves

1. **When AC falls** as a result of an increase in output, **MC is less than AC.**
2. **When AC is minimum, MC = AC. So, MC Curve cuts the AC Curve at its minimum.**
3. **When AC increases due to increase in output, MC is greater than AC.**
4. Initially ATC & MC both decline with increase in output. In this situation ATC > MC.
5. When ATC is minimum ATC = MC.
6. When ATC & MC both are increasing MC > ATC.
7. When AC is decreasing, MC may be decreasing or increasing.
8. When AC is increasing MC must be increasing.

6. Long run average cost curve

a) **LAC Curve:** functional relationship between output and the long—run cost of production.

b) All factors of production are variable in long—run.

c) LAC is the **least—cost** combination, for any particular output level.

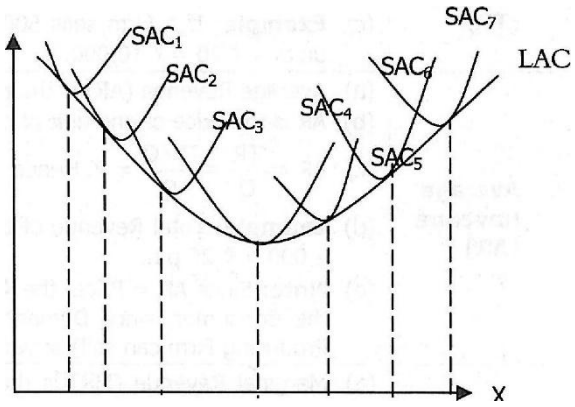
d) **Planning Curve:** LAC Curve is called Planning Curve.

e) SAC (Short—Term Average Cost) Curves are called Plant Curves.

f) **LAC derived from SAC:** LAC Curve is derived as an envelop / tangent of all SAC Curves. Further, the

g) LAC Curve is a **U—Shaped Curve**, due to the operation of Law of Returns to Scale.

h) ***Note: The Firm should select the SAC, not the lowest point of that SAC.***



i) In the diagram, the LAC Curve is drawn as a smooth curve, so as to be **tangent** to each of the SAC Curves.

j) **Note:** LAC Curve is tangent to each of the SAC Curves, not the minimum points of the SAC Curves. So

When LAC Curve is —	LAC will be tangent to	Principle
Declining	The **falling portions** of the SAC Curves.	Returns to Scale will first increase, due to internal and external economies. So, LAC will decline.
Rising	The **rising portions** of the SAC Curves.	Returns to Scale will decrease later, due to internal and external diseconomies. So, LAC will rise.

Thus, as a result of initial fall and subsequent increase in LAC, it will be a **U—shaped Curve**.

Modern LAC is L shaped

7.REVENUE CONCEPT

Total Revenue	1. It is the total money received from the sale of all units of the product. 2. **Total Revenue = Price x Quantity (P x Q)**
Average Revenue (AR)	1. **Average Revenue = Total Revenue/Quantity (TR/Q)** 2. Average Revenue is always equal to Price

Marginal Revenue (MR)	1. MR is the change in TR resulting from the sale of an additional unit of a commodity. 2. **Marginal Revenue = Change in TR/ Change in Qty.** 3. **Marginal Revenue**= TRn – TRn-1
MR, AR, TR and Elasticity of Demand	Marginal Revenue = AR x (e-1)/e Where E = Price elasticity of demand 1. If E = 1, Then MR = 0 2. If E > 1, Then MR will be Positive 3. If E < 1, Then MR will be Negative

8. Summary of Relationships:

TR and MR	▪ If TR increases, MR will be positive. ▪ When TR is maximum, MR = 0. ▪ If TR decreases, MR will be negative.
MR and AR	▪ MR and AR both decline, but MR falls rapidly than AR ▪ AR Curve is flatter than MR. ▪ MR can be zero and even negative, while AR will never cross below the X axis. ▪ At the point where MR = 0, Elasticity of Demand on AR Curve will be 1.

9. Equilibrium Point of the Firm

1. Profit Maximization condition:

   a. **MC = MR. & MC Curve should cut the MR Curve from below**

2. Profit / Loss Condition

AR > AC	Super Profit	
AR = AC	Normal Profit	
AR < AC	Loss	
	AR < AC & AR > AVC	Loss But continue
	AR < AC & AR < AVC	Loss & shut
	AR < AC & AR = AVC	Shut Down Point

Chapter 4 – Market and its type

Properties	Perfect Competition	Monopoly	Monopolistic Competition	Oligopoly
No. of Buyers	Many	Many	Many	Many
No. of Sellers	Many	Single	Many	Few
Nature of Prod	Homogenous	Unique	Differentiated (close substitute)	Homogenous / Differentiated
Product Differentiation	No	Highest	Yes - Main feature	May or May not
Entry	Free	Restricted	Free	Substantial (large but not complete)
Control over Price	No Control	Huge Control	Yes, but less	Reasonable
Elasticity	$e = \infty$ Perfectly elastic	$e < 1$ (no substitute)	$e > 1$ (close substitute)	Kinked - Indeterminate
Takers / Makers	Industry - Maker, Firm - Taker	Price Maker	Price Taker & Price Maker	Price Taker & Price Maker
Demand Curve	Horizontal	Steeper	Flatter	Kink
Short Run Profit	SP, NP, Losses	SP, NP, Losses	SP, NP, Losses	-
Long Run Profit	NP	SP	NP	-
Long Run Optimum?	Always optimum	May or may not	Never optimum	-
Spare Capacity	No spare capacity	May or may not	Always spare capacity	-
Advertisement	No	Little	Huge	Huge
Price Discrimination	×	✓	×	×
Marginal form	✓	×	Imperfect (to but diff)	Perfect & Imperfect (depends)
Mobility of Factors of Prod	Perfect	Restricted	Imperfect	Depends
MR = AR	✓	×	×	×
X-inefficiency	×	✓	×	×
Cross Elasticity	∞	Very low to zero	High	Low or High
Group Behavior	×	×	×	✓
Group Equilibrium	×	×	✓	×
Live & Let Live	×	×	×	✓
Existence in Real World	Myth	Yes, but govt controls them	Yes	Yes

a) **Duopoly:** Duopoly is a market situation in which there are only two Firms in the market. It is a sub—set of Oligopoly,

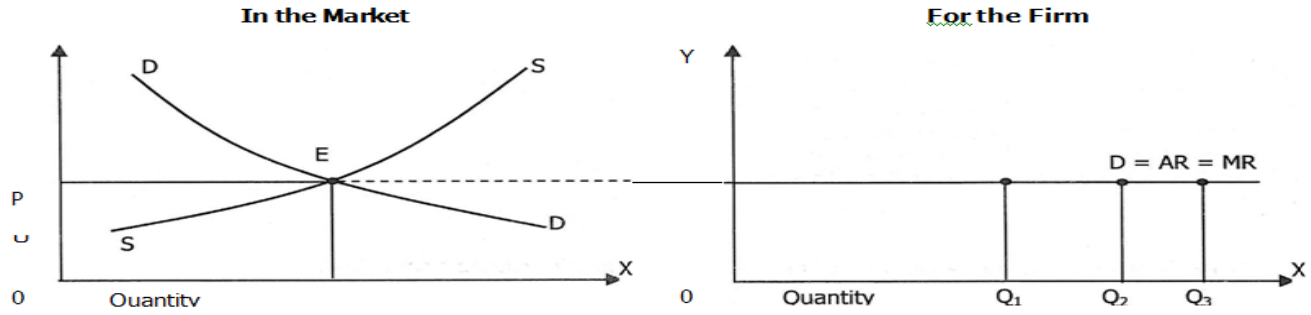
b) **Monopsony:** Monopsony is a market characterized by a Single Buyer of a product or service. It is mostly applicable to Factor Markets in which a Single Firm is the only Buyer of a Factor.

c) **Oligopsony:** Oligopsony is a market characterized by a small number of large buyers. It is also mostly relevant to Factor Markets.

d) **Bilateral Monopoly:** It is a market structure in which there is only a Single Buyer and a Single Seller. Thus, it is a combination of Monopoly Market and a Monopsony Market.

I. Perfect Competition

a) **D = AR = MR = Price.**

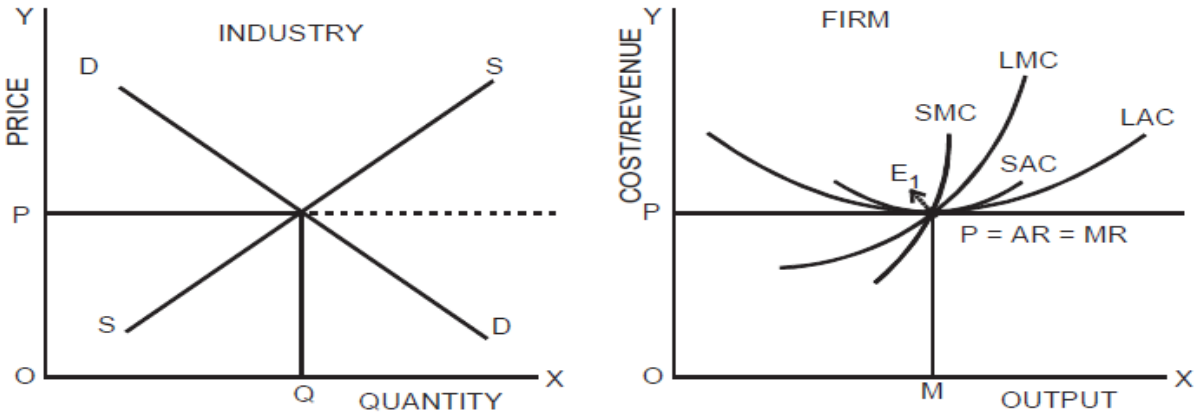


1. **Short Run price determination, Optimum output and profit Determination**

2. **Long – run Equilibrium of a firm under Perfect Competition.**

In the Long run the firms will be earning just **NORMAL PROFITS and** There is **no further entry or exit of Firms** to / from the market.

1. To earn normal Profits, LAR should be equal to LAC or say LAR = LAC
2. In the long run, following conditions are satisfied:
   - The output is produced at the **minimum feasible cost or *minimum LAC***
   - Consumers pay the **minimum possible price**.
   - Full utilization of plants is possible, MC = AC
   - There is no wastage of resources. **optimal allocation**
   - Firms maximize profits i.e. MC = MR, but level of profits will be normal.
   - In the long run **LMC = LMR = P = LAR = LAC = SMC = SAC**
   - When LAC falls LAC> LMC and when LAC raises LMC > LAC



5. Price Discrimination

Price Discrimination occurs when a Producer sells a commodity to different Buyers, at different prices, for reasons not related to differences in cost.

6. Objectives: To earn Maximum Profit, To Dispose of Surplus stock, To enjoy Economies of Scale, To capture foreign markets, To secure **equity thorough pricing**.

a) **Conditions for Price discrimination**

i. **Full control over supply:**

ii. **Division of market into two or more sub-markets:**

iii. **Different price elasticity under different markets:**

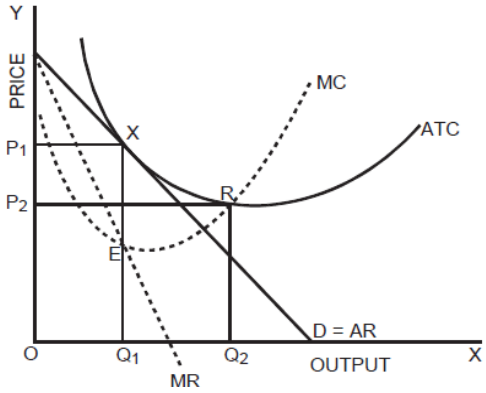
iv. **No possibility to resale:**

b) The Monopolist will be charging different prices in the two markets — a higher price in Market with lower elasticity of demand, and a lower price in Market with higher elasticity of demand. This practice of charging different prices to different segments is known as Price Discrimination.

c) 1st degree, 2nd degree, 3rd degree.

OLIGOPOLY MARKET

1. Types of Oligopoly



a) **Pure / Perfect oligopoly -** deals in homogeneous products- Aluminum industry

b) **Differentiated / imperfect oligopoly** - deals in product differentiated.

c) **Open oligopoly -** New firms can enter the market and compete with existing firms

d) **Closed oligopoly** - new entry is restricted.

e) **Collusive oligopoly -** common understanding or collusion in fixing price and output

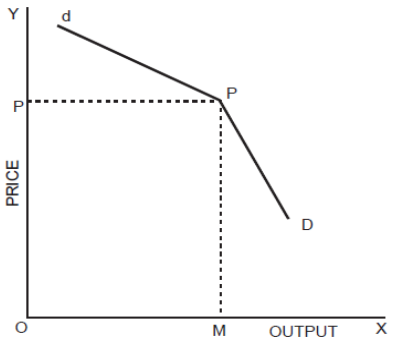
f) **Competitive oligopoly** - Lack of understanding and compete with each other.

g) **Partial oligopoly -** when industry is dominated by one large firm i.e. price leader

h) **Full oligopoly** - absences of price leadership.

i) **Syndicated oligopoly -** Firms sells their products through centralized syndicate/channel

j) **Organized oligopoly -:** Firms Organize into a central association for fixing price, output etc



2. Features

a) Few sellers

b) Interdependence:

c) Advertising and selling costs (Non price competition):

d) There is no generally accepted theory of group behaviour.

e) Kinked demand curve / Indeterminateness of demand curve

Business Cycle

1. Business Cycles refer to **alternate expansion and contraction** of overall business activity as reflected in fluctuations in measures of aggregate economic activity, like Gross National Product, Employment and Income.
2. **Expansion** / Upswing,
3. **Peak** / Prosperity/boom
4. **Contraction** / Downswing / Recession), and
5. **Trough** / Depression).

6. **Features of Business cycle**
   a) Business cycles **occur periodically**
   b) **Do not exhibit the same regularity**.
   c) The **duration, length, intensity and causes** of these cycles **vary**.
   d) Business cycles generally originate in free market economies*****.
   e) **capital goods industries, durable consumer goods industry**, are affected more.
   f) Service and agriculture are not affected much
   g) Business cycles are **contagious and are international in character**.
   h) Business cycles have **serious consequences on the well-being of the society.**
7. **Expansion: Features**
   a) Increase in **national output, employment, aggregate demand, capital and consumer expenditure, sales, profits, rising stock prices and bank credit.**
   b) This state **continues till there is full employment of resources and production is at its maximum**
   c) Involuntary unemployment is almost zero and whatever unemployment is there is either frictional or structural Prices and costs also tend to rise faster. Good amounts of net investment occur.
8. **Peak:** Peak refers to **the top or the highest point** of the business cycle. **Actual demand stagnates**.
9. **Contraction:**
   a) During contraction, there is fall in the levels of investment and employment.
   b) Supply far exceeds demand.
   c) Producers holds back future investment plans, cancellation and stoppage of orders for equipment and all types of inputs including labour.
10. **Trough and Depression:**
    a) Depression is the severe form of recession and is characterized by extremely sluggish economic activities.
    b) During this phase of the business cycle, growth rate becomes negative
    c) A typical feature of depression is the fall in the interest rate.

11. **Question: How does the economy recover?** Reversal is first felt in the **Labour Market >>>>>** workers accepts wages lower than the prevailing rates.

12. Indicators- 3 Indicators (Leading, Lagging, concurrent)

I. Leading Indicators:

a) **Variables that change before the Real Output changes**

b) However, Indicators are not always accurate and Experts disagree on the timing of these Leading Indicators.

c) New order of plant and Machinery, Housing interest rate and New house permit, delayed deliveries.

II. Lagging Indicators:

a) **Variables that change after the Real Output changes,**

b) Labour c.p.u, Corporate Profit, GDP

III. Coincident or Concurrent Indicators:

a) It coincides or occurs simultaneously with the business—cycle movements.

b) Retail Sales, Inflation, Industrial Production

13. Cyclical Businesses: Examples: House—Builders, Construction, Infrastructure, Restaurants, Advertising, Overseas Tour Operators, Fashion Retailers, etc.

14. Causes of Business Cycle

Internal Causes	External Causes
Fluctuations in Effective Demand	Wars
Fluctuations in Investment	Post War Reconstruction
Variations in government spending	Technology shocks
Macroeconomic policies	Natural Factors
Money Supply	Population Growth
Psychological factors	

15. Some important Points for MCQ

a) **According to Pigou,** - optimism or pessimism.

b) **According to Schumpeter's innovation theory**, - innovations -

c) **The cobweb theory propounded by Nicholas Kaldor** - present prices substantially influence the production at some future date.

Chapter -6 National Income Marathon

National Income: Basics

a) National Income measure **short-run performance of an economy.**
b) It helps to meet the needs of **Government, private analysts, policy makers** and **decision takers**.
c) Pioneered by the Nobel prize-winning economists **Simon Kuznets and Richard Stone**
d) The task to measure National Income is undertaken by **Central Statistical Organization (CSO)**, a department of The **Ministry** of Statistics and **Programme Implementation (MoSP&I)**
e) At the State level, **State Directorates of Economics and Statistics (DESs)** have the responsibility of compiling their State Domestic Product and other aggregates.

What is the national Income ?

National Income is defined as money value[1] of final goods and services[2] produced by the normal residents[3] of a country, whether operating within the domestic territory[4] of the country or outside produced within in an accounting year[5].

a. **Expressed in Money Value- Common measure**

b. **Final Value of Goods and services- to** avoid **double counting**.

c. **Normal resident-** Who ordinarily (Majorly and not wholly) resides in the country and whose center of **economic interest** also lies in that country. **Normal residents** include both, **individuals and institutions**.

d. **Domestic territory:** Domestic territory refers to **geographical or political boundary** of country. Excluding other countries offices and embassies.

National income does not include the following transactions:

1. **Pure purchase transaction** such as **sale and purchase of used goods/ second- hand goods**,
2. **Sale, purchase of securities** is also excluded because it is just a change of ownership.
3. **Transfer payments** are included as there is no economic activity involved. E.g Pocket money by Parents, Gift to Son in law.

Flow concept vs stock concept

Flow concept: - National income is a flow concept because it is measured **over a period of time**.

USEFULNESS OF NATIONAL INCOME ESTIMATES

➢ **It is helpful in many ways such as**

a) shows the **composition and structure** of different sectors
a) **Shows income distribution and the possible inequity**
b) Helps **government to make various sector-specific development policies**
c) **Policy Formulation -Combined with financial and monetary data**
c) **International comparisons**

Limitation of National Income

1. **Income Distribution is not clearly reflected:**
2. '**How much is produced**' determines GDP. It does not reflect '**what is produced**'.
3. If more of capital goods are produced the GDP will rise but the welfare may not increase in same manner.
4. **Avoids importance of Non-Market Transaction-** Example, Such as providing music class to society children for fun and other similar activity.
5. **Does not reflect educational status, demography, birth and death rate, ethnicity, population etc.**

Explain the conceptual difficulties or challenges in measurement of national Income

The conceptual difficulties or challenges in measurement of national Income are:

1. **Issue of transfer payments**.
2. **Service of durable goods**.
3. **Valuation of New goods at constant price**
4. **Valuation of Government services** –
5. **Data available** are either **inadequacy** or **unreliable** for calculation of national Income
6. **Presence of non-monetize sector**
7. **Production for self-consumption**

GDP is the sign of welfare increase in GDP Increases welfare yet.

- **Countries may have Same national income and per** capital income but their welfare may vary significantly .
- **Welfare may increase many times but not GDP**.
- **GDP may increase many times but not Welfare –**

THE SYSTEM OF REGIONAL ACCOUNTS IN INDIA

1. The state level estimates are prepared by respective **State Directorates of Economics and Statistics (DESs)** with assistance of **The Central Statistical Organization assists the States.**
2. **Per Capita State Income** = NSDP (State Income) / midyear projected population of the state
3. **Supra-regional sectors' -**Certain activities such as are **railways, communications, banking and insurance and central government administration,**

Circular flow of income can be viewed from two different angles-

1. ***What is Real Flow?*** Real flow consists of flow of factor service and flow of goods and services among different sector of economy-
2. ***What is Money flow?*** Money flow consists of flow of money for factor services in form of wages, rent, dividend (Green arrow) and money expenditure incurred on purchase of goods and services

CIRCULAR FLOW OF INCOME

- Circular flow of income refers to the **continuous circulation of production, income generation and expenditure** involving different sectors of the economy.

1. **In Production phase-** firms produce goods and services with the help of factor services.
2. **In Income or distribution phase,** the flow of factor incomes in the form of rent, wages, interest and profits from firms to the households occurs
3. **In Expenditure or disposition phase**, the income received by different factors of production is spent on consumption of goods and services and investment goods. This expenditure leads to further production of goods and services and sustains the circular flow.

possible situations mentioned below-

i. If Savings= Investment, equilibrium is achieved
ii. Is Savings > Investment, the flow of income declines
iii. Is Savings < Investment, the flow of income rises

Three Sector Model of circular flow of income

The three-sector model consists of Households, Firms and Government.

1. The equilibrium condition of circular flow of income in 3 sector economy model is: S+T = I+G.
2. If (S+T)> (I+G)- Decline in flow of income
3. If (S+T)< (I+G)- Increase in flow of income

Four Sector Model of circular flow of income

It is also called as open economy model as it is engaged in international operations too.

Explanation:

* Export is denoted by **X** while Import is denoted by **M.**

Thus, it can be said that X constitutes injection while M creates leakage into circular flow of income.

1. At equilibrium = S+T+M = I+G+X
2. If S+T+M > I+G+X, there is decline in flow of income.
3. If S+T+M < I+G+X, there is increase in flow of income

Net factor Income Earned from Abroad

Net factor Income Earned from Abroad or **NFIA** is the difference between the factor income received and the factor income accruing to rest of the world

Why NNP at factor cost is better measure of National Income than NNP at Market Price?

Answer: *NNP at Market price is affected by factor called as Net indirect tax. If there is change in tax rate and subsidy then NNP at market price figure will change accordingly* ***without*** *actual increasein Factor cost. Also, different countries have different tax rate and thus for* ***internationalcomparison*** *of relative income level.*

Types of Income:	
Per Capital Income	a) It serves as an indicator of the standard of living of a country. b) Per capita income = $\frac{NNP_{FC}}{Population}$

Summary
GNDI = GDP_{MP} + Net transfer payment received from rest of the world
NNDI = NDP_{MP} + Net transfer payment received from rest of the world
Private Income = NNP_{FC} - Income from property and entrepreneurship accruing to govt. commercial enterprises and admin department- Savings of non- Departmental enterprises of government +Interest on national debt +Net Current Transfer payment received from Govt. dept +Net transfer payment received from rest of the world
Personal Income = Private Income – Undistributed profits- Corporate taxes
Personal disposable income = Personal income- Personal taxes- Miscellaneous receipts of Govt. department.
Nominal GDP/ GDP at Current price – **Qty of G&S x market price prevailing in that year**
Real GDP/ GDP at Base price – **Qty of G&S x market price prevailing in Base year**

GDP at constant price = $\frac{\text{GDP at Current price}}{\text{Price index of current year}} \times 100$

GDP Deflator: It is the ratio of Nominal GDP (at Current Prices) to Real GDP (at Constant price)

GDP Deflator: $\frac{\text{Nominal GDP}}{\text{Real GDP}}$.

a) GDP Deflator takes out the Inflation out of Nominal GDP. It deflates the GDP.

b) It converts Nominal GDP to Real GPD

Inflation:

a) Using the GDP deflator, the inflation rate between two consecutive years can be compute using the following procedure:

b) Inflation rate in year 2 = $\frac{\text{GDP deflator in year 2 -GDP deflator in year 1}}{\text{GDP deflator in year 1}} \times 100$

Methods of Measuring National Income

There are three ways to measure National Income

1. **Product method or Value-added method**- Flow of Goods and services

Gross value added (GVA MP)

= Gross Value of production – value of Purchase

= Value of output – Intermediate consumption

= (Sales + change in stock) –Intermediate consumption. This will Give us GDPMP

2. **Income Method**- Flow of income generated.

   Labour Income + Operating Surplus + Mixed Income = NDP FC

3. **Expenditure Method**- Flow of Expenditure on Goods and services

   C+I+G+ (x-m) = GDP MP

Question: Why are net exports added when computing national income by expenditure Method?

Choice of Different method

In India, a **combination of the three methods** is used, e.g.
Production Method is used for Agricultural Sector,
Income Method is used for Small Scale Sector and
Expenditure Method is used for Construction Sector, to determine Net Value Added in that Sector.

Keynesian Theory of Income determination

Background:

- The Great Depression of the 1930's, was the greatest economic crisis the western world had experienced.
- Many economists then recommended **government spending** as a way of reducing unemployment, but they had no macroeconomic theory by which to justify their recommendations.
- A comprehensive theory to explain Income determination was first put forward by the British economist John **Maynard Keynes** in his masterpiece '**The General Theory of Employment Interest and Money' published in 1936.**

- *Equilibrium output occur when the desired amount of output demanded by all the agents in the economy exactly equals the amount produced in a given time period.*

Key Words:

Marginal Propensity to consume	$\Delta C / \Delta Y$ b
Marginal propensity to Save (MPS)	$\Delta S / \Delta Y$
Average propensity to consume	**APC = Total consumption/ Total income**
Autonomous Expenditure	Autonomous consumption expenditure is the minimum expenditure to sustain life irrespective of size of income, thus it is income inelastic. The expenditure which do not vary with the level of income. They are determined by factors other than income such as business expectations and economic policy. They are generally made by ----- in the public sector with a view to provide public utilities & to make maximum social benefit.

Equilibrium in 2 Sector	
Equilibrium in 3 Sector	
Equilibrium in 4 Sector	

Investment Multiplier:

1. The multiplier refers to the **phenomenon whereby a change in an injection of expenditure wil leadto a proportionately larger change** (or multiple change) in the level of national income.
2. Multiplier explains how many times the aggregate income increases as a result of an increase in investment.
3. The ratio of ΔY to ΔI is called the investment multiplier, k.
4. **Δ Y = k ΔI.**

Deflationary Gap

1. If the aggregate demand is for an amount of output less than the full employment level of output, then we say there isdeficient demand.
2. Deficient demand gives rise to a 'deflationary gap' or'recessionary gap'.
3. Recessionary gap also known as 'contractionary gap' arises in the Keynesian model of the macro economy when theequilibrium level of aggregate production achieved in the short-run falls short of what could be produced at full employment.
4. Recessionary gap occurs when the economy is in a business- cycle contraction or recession.

Public finance – Market Failure and Government Intervention

2.1.1 Market Failure

- Market failure - misallocation of society's scarce resources - either overproduction or underproduction.
- There are two types of market failure namely;
  1) Complete market failure & Partial market failure

Market Power

Point	Explanation
Meaning	1) Market power or monopoly power is the *ability of a firm to profitably raise the market price* of a good or service over its marginal cost and can charge a price that gives them positive economic profits. 2) These profits are not achieved due to operating efficiency, but due to market power and dominance.
Techniques	1. **Lower output:** *(artificial scarcity),* **Higher Price, Missing Markets:**

Externalities | Spillover effects | Neighborhood effects | Third-party effects | side-effect

(Kare koi aur bhare koi aur)

Point	Explanation
Meaning and concept	1. **When actions of either Consumers or Producers result in costs or Benefits that do not reflect as part of the Market Price, such costs or Benefits which are not recognized by, and accounted for, by the Market Price are called "Externalities"**
Consequences of Negative Externalities	1) In Case of Negative Externalities- Marginal **Social Cost> Marginal Private Cost.** 2) In Case of positive Externalities- Marginal **Social Cost< Marginal Private Cost.**

Production Externalities & Consumption Externalities

Production Externalities	Consumption Externalities
Production externality initiated in production which imposes an external cost/ benefit on others may be received by another in consumption or in production.	**Consumption externalities** initiated in consumption which produce external costs/ benefits on others may be received in consumption or in production.

Externalities can be positive or negative.

Positive externalities	Negative externalities
occur when the action of one party **confers benefits** on another party	occur when the action of one party **imposes costs** on another party.
It is socially desirable	It is socially undesirable

2. Goods

Public Goods - Paul A. Samuelson who introduced the concept of 'collective consumption good' in his path-breaking 1954 paper 'The Pure Theory of Public Expenditure' is usually recognized as the first economist to develop the theory of public goods.

a) Characteristics of Public Goods:

1. **Collective in nature:**
2. **No direct payment**
3. **Non-rival in consumption.**
4. **Public goods are non-excludable.**
5. **Public goods are characterized by indivisibility.**
6. **Free Riding Problem & Externalities:**

Free Riding

1. Free riding is ***'benefiting from the actions of others without paying'***.
2. The ***absence of excludability*** in the case of public goods and the ***tendency of people to act in their own self-interest*** will lead to the problem of free riding

sn	*Pure Public Goods*	*Impure Public goods*
1.	A pure public good is **non-rivalrous** and **non-excludable.**	There are many hybrid goods that possess **some features of both public and private goods**. Impure public goods are partially rivalrous or congestible.

Asymmetric information

a) Asymmetric information occurs when there is an **imbalance in information between buyer and seller** i.e. when the buyer knows more than the seller or the seller knows more than the buyer can distort choices.

b) This lead to Problem of **Adverse Selection – wrong product selected**

'Lemons problem' developed by **George Akerlof** in relation to the used car market

a) Second-hand cars may be good quality cars or poor quality cars defined as **"lemons"**. The owner of a car knows much more about its quality than anyone else & he may not disclose all the mechanical defects of the vehicle.

b) Based on the probability that the car on sale is a 'lemon', the buyers' willingness to pay for any particular car will be based on the **'average quality'** of used cars. Since there is quality uncertainty, to account for this risk, the price offered for any used car is likely to be less.

Information failure

Adverse Moral Hazard – seen in case of Insurance

1. Moral Hazard is **opportunism** characterized by an informed person's taking **advantage of a less-informed person through an unobserved action**.

Types of Government interventions

Government interference can be-

- ∂ **Direct** as a buyer or supplier of public goods / information
- ∂ **Indirectly** in the form of ***subsidies / taxes***.

Market Power- Government control

1. **Setting maximum prices** that firms can charge.
2. Price regulation is most often used for **natural monopolies**.
3. **Rate-of-return regulation**. Another approach to regulation is setting **price-caps**.
4. Market liberalization by introducing competition
5. Patronage to consumer associations
6. Reduction in import controls and
7. Nationalization

Government intervention to Correct Externalities

A. **Direct Control:** (also known as command solutions) - Direct controls ***prohibit*** specific activities that explicitly create negative externalities

B. **Indirect/ market-based Control**:

1. Setting the price directly through a pollution tax. These taxes are named Pigouvian taxes after A.C. Pigou.
2. Setting the price indirectly through the establishment of the cap-and-trade system.

Government intervention in case of Merit Goods

Meaning and Example

1. Merit Goods- a) are **socially desirable**, b) involve substantial **positive**
2. Demerit goods are goods which are believed to be **socially undesirable** and involve **high level of negative externalities**.
3. However, it should be kept in mind that all goods with negative externalities are not essentially demerit goods; e.g. Production of steel causes pollution, but

Price intervention: non-market pricing

1. **Price floor** (a minimum price buyer is required to pay). Price floor means the lowest price fixed by government for a product. The Government fixes floor price for farm products. This regulates income of the farmers. MSP
2. **Price ceiling** (a maximum price seller is allowed to charge for a good or service). When prices of certain essential commodities rise extremely, government may resort to controls in the form of price ceilings for making a resource or commodity available to all at reasonable prices.

View of Economists

Adam Smith

Adam Smith is often described as a bold Advocate of Free Markets and Minimal Governmental Activity except in areas of-

- National Defense, Establishment and Maintenance of Highly beneficial Public, Maintenance of Justice, Public Works

Allocation Function

1. **Meaning: Optimal or efficient allocation of scarce resources** means that the available resources are put to their best use and no wastages are there.
2. The private sector resource allocation is characterized by market supply and demand and price mechanism as determined by consumer sovereignty and producer profit motives.
3. The state's allocation, on the other hand, is accomplished through the revenue and expenditure activities of governmental budgeting.
4. In its allocation role, the government acts as a complement rather than as a substitute to the market system in an economy.

Re-distribution Function

1. The distributive function of budget is related to the basic question of **'for whom'** should an economy produce goods and services.
2. Governments can redistribute income and wealth either through the **expenditure side or through the revenue side of the budget**.
3. On the expenditure side, **governments may provide free or subsidised education, healthcare, housing, food and basic goods etc. to deserving people**.
4. On the revenue side, **redistribution is done through progressive taxation**.

Redistribution function/ market intervention for socio- economic reasons performed by governments are:

1. **Progressive taxation** policies of the government
2. Proceeds from progressive taxes used for financing public services, especially those that benefit low-income households
3. **Employment reservations**
4. families below the poverty line are provided with monetary aid and aid in kind
5. **Special schemes for backward regions** and for the vulnerable sections of the population

However, Redistribution measures should be accomplished with minimal efficiency costs by carefully balancing **equity and efficiency** objectives-comment

Stabilization Function

1. Macroeconomic stability is said to exist when:
   a) an economy's **output matches its production capacity**, the economy's **total spending matches its total output**, the economy's **labour resources are fully employed**, and **Inflation is low and stable**.

Centre and State Finance

1) **Fiscal federalism**, a term introduced by Richard Musgrave, deals with the division of governmental functions and financial.
2) Musgrave argued that the **federal or central government should be responsible for economic stabilization and income redistribution,** and the **allocation of resources** should be the **responsibility of the state and local governments.**
3) India is a federation of 28 states and 8 union territories.
4) **Article 246 of the Constitution demarcates the powers of the union and the state** by classifying their powers into three lists, *namely union list, state list and the concurrent list.*
   i. **The union list** contains items on which the union parliament alone can legislate
   ii. **The state list** has items on which the state legislative assemblies alone can legislate
   iii. **The concurrent list**, on which both the parliament and the legislative assemblies can legislate. In the event of conflicting legislation in concurrent list, the law passed by the centre prevails.
5) The central government has greater revenue raising powers. The union government can levy taxes such as *tax on income, other than agricultural income, customs and export duties, excise duties on certain goods, corporation tax, tax on capital value of assets excluding agricultural land, terminal taxes, security transaction tax, central GST, union excise duty, taxes other than stamp duties etc.*
6) The state governments can levy taxes *on agricultural income, lands and buildings, mineral rights, electricity, vehicles, tolls, professions, collect land revenue and impose excise duties on certain items.*
7) The property of the union is exempt from state taxation. The property and income of the states are not liable to be taxed by the centre.

Distribution of revenue between the union and states is based on the constitutional provisions as follows:

1) The **Finance Commission** is a constitutionally mandated body that is at the center of fiscal federalism.
2) The Finance Commission helps in maintaining fiscal federalism in India by performing following functions: The **distribution between the union and the states, Determination of principles and quantum, to make recommendations to the President.**
3) *The commission recommended the share of states in the central taxes (vertical devolution) for the 2021-26 to be 41%, which is the same as that for 2020-21.*
4) *The criteria for distribution of central taxes among states -* **A**rea, **P**opulation (2011), **D**emographic performance (to reward efforts made by states in controlling their population), **F**orest and ecology, **T**ax and fiscal efforts:

GST: - Background and facts

1. The introduction of GST, which was rolled out across the country on **1 July 2017**.
2. The GST subsumes the majority of indirect taxes – excise, services tax, sales tax, octroi (entry tax). The GST has made India's indirect tax regime unitary in nature.
3. During the five-year transition period, the top five GST compensation-receiving states were Maharashtra, Karnataka, Gujarat, Tamil Nadu, and Punjab.
4. As per the supreme court verdict in May 2022, the Union and state legislatures **have "equal, simultaneous and unique powers** "to make laws on Goods and Services Tax (GST) and the recommendations of the GST Council are not binding on them.

THE PROCESS OF BUDGET MAKING

1. Despite the fact that the union budget is presented on1st February, the process of budget preparation commences in August-September of the previous year.
2. **Annual Financial statement:**
3. The budgetary procedures are -
   a. *Preparation of the budget*
   b. *Presentation and enactment of the budget and*
   c. *Execution of the budget*
4. The budget process mainly consists of two types of activities:
   a. The administrative process,
   b. The legislative process.

The budget speech of the Finance Minister is usually in two parts.

The finance minister makes a detailed budget speech at the time of presenting the budget before the Lok-Sabha.

A. **Part A of the budget speech gives an outline of the prevailing macro economic situation of the country and the budget estimates for the next financial year**

B. **Part B of the budget speech details the progress**

C. **The Annual Financial Statement** shows the **receipts and expenditure** of government in three separate parts under which government accounts are maintained, namely:
   a. Consolidated Fund of India
   b. Contingency Fund of India, and the
   c. Public Account.

D. The expenditures of certain categories (e.g. the emoluments and allowances of the President of India and his/her office, and emoluments of Judges of supreme courts and high ranking personnel of constitutional bodies across India) are 'charged' on the Consolidated Fund of India and are not subject to the vote of parliament, are also indicated separately in the budget.

E. By convention in an election year, the budget may be presented twice.

F. The Parliament has to pass the Finance Bill within 75 days of its introduction.

SOURCES OF REVENUE

The broad sources of revenue are:

1. The **Department of Revenue of the Ministry of Finance** exercises control in respect of the revenue matters relating to **direct and indirect union taxes.** The department is also administering goods and services tax (GST), central sales tax, stamp duties too.

2. The Department of Revenue exercises control in respect of matters relating to all the direct and indirect union taxes through two statutory boards, namely,
   a) the Central Board of Direct Taxes (CBDT) - Matters relating to the levy and collection of all direct taxes
   b) the Central Board of Indirect Taxes and Customs (CBIC). - Matters relating to the levy and collection of all indirect taxes (GST, Customs and central excise duties, service tax)

3. Government receipts are classified under two categories:

a) Revenue receipts		b) Capital receipts	
Tax revenue	Non tax revenue.	debt capital receipts	non debt capital receipts

- **Debt capital receipts** Comprise of market loans and short term borrowings by the government, borrowing from the Reserve Bank of India and loans taken from foreign governments/institutions.
- **Non debt capital receipts** include recoveries of loans advanced by the government to PSEs, state governments, foreign governments and union territories and sale proceeds of government assets, including those realized from divestment of government equity in public sector undertakings (PSUs).

PUBLIC DEBT MANAGEMENT

Budget concepts (Type of budgets)

surplus budget	• When estimated government receipts are more than the estimated government expenditure it is termed as surplus budget.
deficit budget	• When estimated government receipts are less than the government expenditure.
Balanced budget	• A balanced budget is a budget in which revenues are equal to expenditures.
Unbalanced budget	The budget may either be surplus or deficit.
Capital Receipts	• Capital receipts are those receipts that lead to a reduction in the assets or an increase in the liabilities of the government.
Revenue Receipts	• Revenue receipts can be defined as those receipts which neither create any liability nor cause any reduction in the assets of the government.
Capital	• There are expenditures of the government which **result in creation of physical**

Expenditure	**or financial assets or reduction in financial liabilities.**
Revenue Expenditure	• Revenue expenditure is expenditure incurred for purposes **other than creation of physical or financial assets** of the central government.
Revenue Deficit	• The revenue deficit refers to the excess of government's revenue expenditure over revenue receipts. • Revenue deficit = Revenue expenditure – Revenue receipts
Budgetary Deficit or Overall Deficit	• Budgetary Deficit is defined as the excess of total estimated expenditure over total estimated revenue, both revenue and capital.
Fiscal Deficit	• Fiscal deficit is the difference between the government's total expenditure and its total receipts **excluding borrowing** (non-borrowed receipts). • Fiscal Deficit = Revenue Deficit + (Capital Expenditure - Capital Receipts excluding borrowing) • The fiscal deficit will have to be financed by borrowing.

Primary Deficit	• Primary deficit is **defined as fiscal deficit of current year minus interest payments on previous borrowings.** • **Primary deficit = Fiscal deficit – Net Interest liabilities**
Finance Bill	The Bill produced immediately after the presentation of the union budget detailing the Imposition, abolition, alteration or regulation of taxes proposed in the budget.
Outcome budget	• The outcome budget measures **budgetary allocations of schemes and its annual performance targets measured through output and outcome indicators.**
Guillotine	• The parliament has very limited time for examining the expenditure demands of all the ministries.
Cut Motions	• Motions for reduction to various demands for grants are made in the form of cut motions seeking to reduce the sums sought by government on grounds of economy or difference of opinion on matters of policy or just in order to voice a grievance.
Consolidated Fund of India	• All revenues received, loans raised and all moneys received by the government in repayment of loans are credited to the Consolidated Fund of India • All expenditures of the government are incurred from this fund.
Contingency Fund of India	• A fund placed at the **disposal of the President** to enable him/her to make advances to the executive/Government to meet urgent unforeseen expenditure. • Contingency fund enables the government to meet unforeseen expenditure and does not require prior legislative approval.
Public Account	•

Fiscal Policy – Meaning and Objective **Meaning:**

1. *Fiscal policy involves the use of* ***government spending, taxation and borrowing*** *to influence both the pattern of economic activity and level of growth of aggregate* **demand, output and employment**.
2. Fiscal policy is in the nature of a demand-side policy.
3. An economy which is producing at full-employment level does not require government action in the form of fiscal policy.

Objective of Fiscal policy:

1. Achievement and maintenance of full employment,
2. Maintenance of price stability,

Discretionary fiscal policy

1) Discretionary fiscal policy refers to a ***deliberate policy actions*** on the part of the government to change the levels of expenditure and taxes to influence the level of national output, employment, and prices.

Non- Discretionary fiscal policy

1) Non- discretionary fiscal policy or automatic stabilizers are part of the structure of the economy and are *'built-in'* fiscal mechanism that operates **automatically** to reduce the expansions and contractions of the business cycle.

Explanation

1. **Automatic Stabilizers during Recession when incomes are reduced**
   a) ***Progressive tax structure***
   b) Government expenditures & ***transfer payments***
2. **Automatic Stabilizers during Inflation/ Demand-pull inflation**
   a) ***Progressive tax structure***
   b) Government expenditures & ***transfer payments***

Four Instruments/ tools of Fiscal Policies	
Taxes	***Taxes determine the size of disposable income*** in the hands of the general public. **Action during Inflation- Action during Recession**

Government expenditure	Government expenditures include: **There are two concepts of public spending during depression- 'pump priming' and 'compensatory spending'.** 1. Pump priming assumes. 2. Compensatory spending
Public Debt	**Meaning and Types:** 1. Public debt may be *internal* or *external*; **Action During Inflation:** **Action During Recession:**
Budget	**Action during Recession:** **Action during Inflation:**

Shortcoming and Limitations of Fiscal policy

1. **Timing Problem:** Discretionary fiscal policy may create more problems due to time delays (i.e lags) which include-
   a) Recognition Lag-
   b) Decision Lag-
   c) Implementation Lag-
   d) Impact Lag-.

2. **Government constrains:**

4. There are **possible conflicts** between different objectives of fiscal policy.

5. **Negative effect of Deficit financing**:

6. Increase is government borrowing creates perpetual burden on even future generations as debts have to be repaid.

7. **"Crowding Out" Effect:**

Crowding out

Meaning and Example:

1. When spending by government in an economy **replaces** private spending, the private sector is said to be crowded out. (Note: Government spending has to "Support" and "enhance" private spending not merely "replace" it.)
2. "Crowding out" effect is the negative effect that a fiscal policy may generate, when money from the private sector is "crowded out" to the public sector.

Impact on Investment:

1. **High Interest Rate-**

2. **Impact on market's ability of self-correction:**

Positive Aspects-

a) during deep recessions, crowding-out is less likely to happen as private sector investment is already minimal and therefore there is only insignificant private spending to crowd out.
b) Moreover, during a recession phase the government would be able to borrow from the market without increasing interest rates.

8 MONEY MARKET

Unit 2: Demand for Money

1. Demand for Money

2. Money refers to assets which are commonly used and accepted **as a means of payment** or **Exchange medium of transferring purchasing power store of value.**
3. For **policy purposes,** money may be defined as the **set of liquid financial assets** .
4. In modern days, money is not necessarily a physical item; it may also constitute **electronic records.**
5. Fiat money is **materially worthless**.
6. If people desire to hold money, we say there is demand for money.
7. As we are aware, the demand for money is in the nature of derived demand.
8. The Demand for Money is because of two reasons-
   a. Demand for **liquidity and demand to store value**.
   b. People wish to have **command over real goods and services** with the use of money.
9. Demand for money has an important role in the determination of **interest, prices** and **income** in an economy.

2. Variables/ Factors on which Demand for Money depends

Sr. no	Factor	Nature of relationship
1	Income and Expenditure	Direct
2	General price Index	Direct
3	Interest (Opportunity cost)	Inverse
4	Degree of Financial Innovation	Inverse

3. Theories of Demand for Money

Theories of Demand for Money:

a) Quantity theory of Money (QTM) - Classical Approach or Fisher's Approach
b) Cash Balance Approach - Neo-classical Approach or Cambridge Approach
c) Liquidity Preference Theory - Keynesian Theory

Post Keynesian Theories –

d) Inventory Approach- Baumol
e) Friedman Theory, and
f) Demand for Money as Behavior towards Risk-Tobin

4. Quantity Theory of Money [QTM]

1. propounded by **Irving Fisher of Yale University** in his book '**The Purchasing Power of Money**' published in 1911.
2. QTM demonstrate that there is **strong relationship between money and price level**.
3. Fisher's version, also termed as ***'equation of exchange'*** or '***transaction approach***' is formally stated as follows :
4. As per Fisher's approach-
   - **Quantity of Money demanded = price level (P) x Total volume of transaction (T)= Supply of Money (MV+M'V')**

5. Cash balance approach/ Neo classic Approach/ Cambridge approach

1. In the early 1900s, Cambridge Economists **Alfred Marshall, A.C. Pigou D.H. Robertson** and **John Maynard Keynes** forward **neo-classical theory or cash balance approach.**
   Transaction need & Precautionary need.

2. **Demand for Money= Proportion of income that people want to hold as cash (k) x income (PY).**
   $(M^d) = k\,PY$

Liquidity theory of demand/ Keynesian Theory of Demand for Money

'Liquidity preference', a term that was coined by John Maynard Keynes in his masterpiece 'The General Theory of Employment, Interest and Money' (1936), denotes people's desire to hold money rather than securities or long-term interest-bearing investments.

According to Keynes, people hold money (M) in cash for three motives:

(i) Transactions motive,
(ii) Precautionary motive, and
(iii) Speculative motive.

Situation	If current Rate (Rn) > Critical Rate (Rc)	If Current rate (Rn) < Critical Rate (Rc)

6. Inventory Approach

1. Baumol (1952) and Tobin (1956) developed a deterministic theory of transaction demand for 'real cash balance', known as Inventory Theoretic Approach.

7. FRIEDMAN'S THEORY

1. Milton Friedman (1956) extended **Keynes' speculative** money demand within the framework of asset price theory.
2. **Milton Friedman** (1956) treats the demand for money as for demand for **capital assets**.
3. Demand for money is affected by the same factors as demand for any other asset, namely
   a) Permanent income.
   b) Relative returns on assets. (which incorporate risk)

8. Demand for money as a behaviour towards risk

1. According to Tobin, an individual's behaviour shows risk aversion. (risk avoiding behavior)
2. If an individual chooses to hold a greater proportion of risky assets such as bonds or shares in his portfolio - then higher average return but higher degree of risk.

Tobin's Liquidity Preference Function

Basics of theory: Tobin analysed that the **Risk – Avoiding behaviour of Individuals** provided the basis-

a. For the Liquidity Preference, and
b. For a negative relationship between the Demand for Money and the Interest Rate. If this payment is increased, Investor is willing to put a greater proportion of the Portfolio into the Risk Asset

Unit 3: Supply of Money

1. Meaning and introduction

1. "Money supply" denotes the **Total Quantity** of **Money** available to **the people in the economy**. The Quantity of money at any point of time is a measurable concept.

2. Sources of Money supply

Supply of the money in an economy depends upon-

a) Decision of **central bank**, and

b) The **supply responses of Commercial banking system** of country wrt. to policy of central bank. Commercial banks create **Credit Money** in an economy.

1. There are two broad sources of Money Supply, i.e **High Powered Money**, and **Credit Money**. These are explained as under-

Item	Computation
M1 – Narrow Money	Currency notes and coins with the Public + Net Demand Deposits of Banks (CASA Deposits) + Other Deposits with RBI. (Other than those held by government) Note: Net Demand Deposits = Total Demand Deposits **Less** Inter – Bank Deposits **(Also refer note below)**
M2	MI + Savings Deposits with Post Office Savings Banks.
M3- Broad Money	MI + Net time Deposits with the Banking System.
M4	M3 + Total deposits with Post Office Savings banks (excluding National Savings Certificates)

Money Multiplier approach to supply of money- Milton Friedman & Anna Schwartz.

$M = m \times MB$

Money Multiplier = $1/R$

Credit Multiplier approach to supply of money-

1. **Credit Multiplier:**

a) Credit Multiplier = $\frac{1}{\text{Required Reserve Ratio}}$

1.

Therefore, we conclude that the banking system's excess reserves ratio r is negatively related to the market interest rate.

Unit 4: Monetary Policy

1. **Meaning:** Monetary Policy refers to the use of **Monetary Policy Instruments** which are at the **disposal of the Central Bank** for achieving various objectives.
   - **Directly** controlling the **Money supply**, and

Indirectly at regulating the **Demand** for Money.

2. Monetary Policy Framework

In the execution of Monetary Policy, the Central Bank functions within a specified monetary policy Framework which has 3 components as under-

1. **Monetary Policy Objectives-** providing explicit Guidance to the Policy Makers.
2. **Analytics of Monetary Policy-** which focus on Transmission Mechanisms for implementation.
3. **Operating procedures-** which focus on operating targets and instruments.

Monetary Policy Objectives

1. The Reserve Bank of India Act, 1934 in its preamble sets out the objectives of RBI as "to **regulate the issue of Bank notes** and the **keeping of Reserves** with a view to securing **Monetary Stability** in India generally to **operate Currency and Credit System** of the country to its advantage".
2. **Prima Objectives:** The most common objectives of Monetary Policy of the Central Banks across the World are –
   - **Price Stability-** Establishment and Maintenance of stability in Prices (or controlling inflation)
   - **Economic Stability-** Maintenance of Full Employment and achievement of high level of economy's growth

3. Analytics of Monetary Policy – Transmission Mechanism for Implementation

The process or **Channels** through which the **change of Monetary Aggregate** affects the level of **Product and Prices** is known as "Monetary Transmission Mechanism".

A. Saving and Investment Channel
B. Cash-flow Channel
C. Asset Prices and Wealth Channel
D. Exchange Rate Channel

4. Operating Procedures and Instruments

Quantitative tools – The tools applied by the policy that impact money supply in the entire economy, including sectors such as manufacturing, agriculture, automobile, housing, etc.

1. **Reserve Ratio** Banks are required to keep aside a set percentage of cash reserves or RBI approved assets. Reserve ratio is of two types:
   a. **Cash Reserve Ratio (CRR)** – Banks are required to set aside this portion in cash with the RBI. The bank can neither lend it to anyone nor can it earn any interest rate or profit on CRR.
   b. **Statutory Liquidity Ratio (SLR)** – Banks are required to set aside this portion in liquid assets such as gold or RBI approved securities such as government securities. Banks are allowed to earn interest on these securities; however, it is very low.

2. **Open Market Operations (OMO) -**In order to control **money supply and inflation**, the RBI buys and
3. **Qualitative tools -** Unlike quantitative tools which have a direct effect on the entire economy's money supply, qualitative tools are selective tools that have an effect in the money supply of a specific sector of the economy.
   a. **Margin requirements** – The RBI prescribes a certain margin against collateral, which in turn impacts the borrowing habit of customers. When the margin requirements are raised by the RBI, customers will be able to borrow less.
   b. **Moral suasion** – By way of persuasion, the RBI convinces banks to keep money in government securities, rather than certain sectors.
   c. **Selective credit control** – Controlling credit by not lending to selective industries or speculative businesses.

4. **Market Stabilization Scheme (MSS)** –

5. **Policy Rates** –
   a. Fixed Repo Rate quoted for sovereign Securities in the overnight segment of LAF is considered as the Policy Rate. (India has many other Repo Rates in operation)
6. **Bank rate** – The interest rate at which RBI lends long term funds to banks is referred to as the bank rate.

7. **Liquidity Adjustment Facility (LAF)** – RBI uses LAF as an instrument to adjust liquidity and money supply. The following types of LAF are:
   a. **Repo rate:** Repo rate is the rate at which banks borrow from RBI on a short-term basis against a repurchase agreement. Under this policy, banks are required to provide government securities as collateral and later buy them back after a pre-defined time.
   b. **Reverse Repo rate: It** is the reverse of repo rate, i.e., this is the rate RBI pays to banks in order to keep additional funds in RBI.
   c. It is linked to repo rate in the following way: **Reverse Repo Rate = Repo Rate – 1**

8. **Marginal Standing Facility (MSF) Rate:** MSF Rate is the penal rate at which the Central Bank lends money to banks, over the rate available under the rep policy.
   a. **Banks availing MSF Rate can use a maximum of 1% of SLR securities.**
   b. **M**SF Rate = Repo Rate + 1MSF Rate = Repo Rate + 1 .

Monetary Policy Framework Agreement (MPFA)

1. The Reserve Bank of India (RBI) Act, 1934 was amended on June 27, 2016, for giving a statutory backing to the Monetary Policy Framework Agreement (MPFA) and for setting up a Monetary Policy Committee (MPC).
2. It is an Agreement reached between the Government of India and RBI on the Maximum tolerable Inflation Rate that RBI should target to achieve price stability.
3. The amended RBI 2016 Act provides for a statutory basis for the implementation of the 'Flexible Inflation targeting Framework'.
4. Announcement of an Official Target Range for Inflation is known as Inflation Targeting.
5. The Expert Committee under Urijit Patel, in January, 2014, suggested RBI abandoned the **'Multiple Indicator'** Approach and made Inflation Targeting the primary objective of its Policy.

Inflation Target

1. Inflation target is set once in every 5 years.
2. Central Government has notified 4% Consumer Price Index (CPI) Inflation as the target for the period from 5 August 2016 to 31 March 2021 (Upper Tolerance Limit – 6%, Lower Tolerance Limit – 2%)
   -

CH 9: INTERNATIONAL TRADE

Advantages and Disadvantages of International trade

Theories of International Trade

A. Mercantilist approach- 16th and 18th century

1. **Exports were viewed favorably,** while Imports were not considered conducive.
2. no **"win-win"** but **"Zero-Sum Game"**,

1.2.2 The Theory of Absolute Advantage

(they get more from international trade from what they can get doing production individually)

a.
b.

1. Theory of Absolute Cost Advantage was propounded by ***Adam Smith***
2. Under this Theory, an exchange of goods will take place **only if each of the two countries can produce one commodity at an absolutely lower production cost than the other country**.
3. Each Country which has an absolute advantage over another country in the production of **an item**, can trade such item, and hence gain in terms of International Trade.
4. Used **labour as the only input**.

Comparative advantage theory- Ricardo's Theory

1. ***David Ricardo*** developed the classical theory of comparative.
2. The law of comparative advantage states that ***even if one nation is less efficient than (has an absolute disadvantage with respect to) the other nation in the production of all commodities, there is still scope for mutually beneficial trade***.
3. The first nation should specialize in the production and export of the commodity in which its ***absolute disadvantage is smaller*** (this is the commodity of its comparative advantage) and import the commodity in which it's absolute disadvantage is greater (this is the commodity of its comparative disadvantage).

HECKSHER-OHLIN theory (H-O Theory) or Modern Theory

1. This theory is also known as **factor-endowment theory of trade or Modern Theory of Trade.**
2. **Factor endowment means Availability of usable resources** including both natural and man-made means of production.
3. Accordingly, **international trade occurs because different countries have different factor endowment.**

NEW TRADE THEORY (NTT)

Concept: New Trade Theory developed in the late 1970s and early 1980s focuses on the role of increasing returns to scale and network effects.

NTT explains that there are two reasons for advantages to countries by engaging in International Trade.

Unit 2 – Instruments of Trade Policy

1. Trade liberalization refers to opening up of domestic markets to goods and services from the rest of the world by bringing down trade barriers.
2. **Meaning of Trade policy:** Policy that encompasses all instruments those governments may use to ***promote or restrict imports and exports***.
3. **Objectives:** The main purpose of trade policy is typically to ***restrict imports and/or encourage exports.***

Forms of Import Tariff

A. **Specific Tariff (irrespective of Value)**: A specific tariff is an import duty that assigns a **fixed monetary tax per physical unit** of the good imported.

B. ***Ad valorem* (on value):** An *ad valorem* tariff is levied as a **constant percentage of the monetary value** of one unit of the imported good.

C. **Mixed Tariffs:** It is the combination of **Specific tariff** or **Ad Valorem** tariffs.

D. **Compound Tariff or a Compound Duty:** Ad valorem + specific tariff. : Fixed + Variable

E. **Technical Tariff**: Duty is calculated on the components of the imported item

F. **Tariff Rate Quotas**: Imports entering under the specified quota portion are usually subject to a lower (sometimes zero) tariff rate. Imports above the quantitative threshold of the quota face a much higher tariff.

G. **Escalated Tariff**: Duty Rates on raw materials, semi processed goods and final products are **progressively higher.**

H. **Anti-dumping Duties** It is applicable when article is **imported at less than its nominal value**, foreign seller dumps goods in a country at less than sale prices in his market, or less than Full average cost.

I. **Safeguard Duties**: There may be genuine case where the other country is not dumping their product but actually producing at lower cost. This will still create negative effect in domestic economy of importing company.

J. **Countervailing Duties** It is levied on imports from any country which pays directly or indirectly, ***any subsidy on the manufacture, production*** etc. of an article

K. **MFN Tariffs**: MFN tariffs are what countries promise to impose on imports from **other members of the WTO**,

L. **Preferential tariff**: Under **Preferential Tariff** countries promise to give another country's products lower tariffs than their MFN rate. Many time even **nil rate.**

M. **Bound Tariff**: A bound tariff is a tariff which a WTO member binds itself with a **legal commitment not to raise it above a certain level.**

N. **Applied Tariff**: An 'applied tariff' is the duty that is actually charged on imports on a most-favored nation (MFN) basis. Applied tariff can also be lower than Bound tariff

TYPES OF TECHNICAL NTMs

1. **Technical Barriers to Trades- (TBT)**
2. Sanitary and Phytosanitary (SPS) Measures - human, animal or plant life

Non-Tariff Non Technical

1. **Financial Measure**:
2. **State Trading:** These measures grant exclusive privileges an special preferences to a few Operators/ Agencies.
3. **Local Content Measure:** These measures include rules on local content requirements that mandate a specified fraction of a final good should be produced domestically.
4. **Distribution Restrictions:** involving additional license or certification requirements. These may relate to geographical restrictions or restrictions as to the type of agents who may resell.
5. **Service Restrictions**:
6. **Rule of origin**: Rules of origin are the criteria needed by governments of importing countries to determine the national source of a product.
7. **Embargos**:

Exports related Measures

1. **Export Quotas**: A quota on the export of a product from a country.
2. **Ban on exports**
3. **Export tax**
4. **Export Subsidies**
5. **Voluntary Export Restraints (VERs):**

Unit 3 – Trade Negotiation

1. GATT is a Multilateral Trade Agreement created in January 1948 to achieve a broad, multilateral and free worldwide system of trading.
2. GATT governed international trade, working along with the **World Bank & International Monetary Fund.**

Introduction of WTO - Uruguay Round

1. The Round started in Punta del Este in Uruguay in September 1986.The final act concluding the Uruguay Round establishing the WTO Regime was signed 15 April 1994, during the ministerial meeting at Marrakesh, Morocco, and hence is known as the Marrakesh Agreement.

2. **WTO – Aim and Objectives**
   a. **The WTO has six key objectives:**
      (i) to **set and enforce rules** for international trade,
      (ii) to **provide a forum for negotiating** and monitoring further trade liberalization,
      (iii) to **resolve trade disputes**,
      (iv) to **increase the transparency** of decision-making processes,

(v) to **cooperate with other major international economic** institutions involved in global economic management, and

(vi) to **help developing countries** benefit fully from the global trading system.

3. **The Structure of the WTO**
   a. **MINISTERIAL CONFERENCE**
   b. **GENERAL CONFERENCE:**
   c. **The Goods Council, Services Council, Intellectual Property**
   d. **Committees and Working Groups:**

4. **Guiding principles of WTO**

a. Most-favoured-nation (MFN) Treatment:
b. National Treatment Principle (NTP)
c. No Quantitative Restrictions
d. Dispute Settlement Mechanism

WTO Agreement

1. **Agreement on the Application of Sanitary and Phytosanitary (SPS)**
2. **Agreement on Textiles and Clothing (ATC) replaced the Multi-Fiber Arrangement (MFA).**
3. **Agreement on Technical Barriers to Trade (TBT)**
4. **Agreement on Trade-Related Investment Measures (TRIMs) -**
5. **Agreement on Pre-shipment Inspection (PSI)**
6. **General Agreement on Trade in Services (GATS)**
7. **Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS):**
8. **Trade Policy Review Mechanism (TPRM)**
9. **The most controversial topic in the Doha Agenda was agriculture trade.**

Bilateral or direct inter government grants.	Trade credit facilities		

Foreign Direct Investment (FDI)

1. Meaning - Foreign direct investment is defined as a process whereby the ***resident of one country*** (i.e. home country) ***acquires ownership of an asset in another country*** (i.e. the host country) and such movement of capital involves ***ownership, control as well as management*** of the asset in the host country.
2. Direct investments are ***real investments*** in factories, assets, land, inventories etc.
3. It Has a **long-term interest** and therefore remains invested for long.

4. Control 10% re more

5. Components: FDI has three components-
   (a) Equity Capital, Reinvested Earnings, Other direct Capital in the form of intra-company loans between Direct Investors (Parent) and Affiliate Enterprises.
6. Modes or Forms of FDI
   (a) ***Opening of a subsidiary or associate*** company in a foreign country,
   (b) ***Equity injection*** into an overseas company,
   (c) ***Acquiring a controlling interest*** in an existing foreign company,
   (d) ***Mergers and acquisitions(***M&A)
   (e) ***Joint venture*** with a foreign company.
   (f) ***Green field investment*** (establishment of a new overseas affiliate for freshly starting production by a parent company).
   (g) ***Brownfield investments*** (a form of FDI which makes use of the existing infrastructure by merging, acquiring or leasing, instead of developing a completely new one . For e.g. in India 100% FDI under automatic route is allowed in Brownfield Airport projects.

Types of FDI

1. ***Horizontal FDI – Same product in home and host country.***
2. ***Vertical – Not same but belonging to same value chain***
3. ***Conglomerate FDI – Unrelated***
4. ***Two way FDI – Swap***

Foreign Portfolio Investment (FPI)

1. Meaning- Foreign portfolio investment is the flow of **'financial capital'** rather than **'real capital'** and does not involve ownership, control, or management on the part of the investor.
2. Characteristics of FPI

(a) **remunerative return through investment in foreign securities** and is primarily concerned about the safety of their capital,

(b) Such investors also **do not have any intention of exercising voting power or controlling or managing the affairs of the company** in whose securities they invest

(c) **Lower stake** in companies with their total stake in a firm **at below 10 percent**.

(d) FPI have **immediate impact on balance of payment** or exchange rate rather than on production or income generation.

FDI in India

- Routes for FDI -An Indian Company can obtain FDI through-
  a. **Automatic Route-** i.e without any prior approval of the Government or RBI.
  b. **Approval Route**- i.e with prior approval of the Government

- Instruments - FDI can be obtained through issue of **"FDI – Compliant instruments"** viz **Equity Shares, fully and mandatorily Convertible Preference Shares and Debentures, Partly Paid Equity Shares and Warrants**, issued in accordance with the Companies Act 2013 and SEBI Guidelines, as applicable.
- Prohibition - In India, Foreign Investment is prohibited in the following sectors-
  (a) Lottery Business including Government/ private Lottery, Online Lotteries etc
  (b) Gambling and Betting including Casinos etc
  (c) Chit Funds
  (d) Nidhi Company
  (e) Trading in Transferable Development Rights (TDRs)
  (f) Real Estate Business or Construction of Farm Houses
  (g) Manufacturing of cigars, Cheroots, Cigarillos and Cigarettes, of Tobacco or of Tobacco substitutes

EXCHANGE RATE AND ITS ECONOMIC EFFECTS

A. Foreign Exchange – A foreign currency transaction is a transaction that is denominated in or requires settlementin a foreign currency:

B. **Foreign exchange Market –**

(a) The wide-reaching collection of markets and institutions **that handle the exchange of foreign currencies** is known as the foreign exchange market.

(b) Foreign exchange market comprises of buyers and sellers of foreign currency.

C. **Features of Foreign exchange Market –**

(a) It is ***a wide-reaching market*** and operates ***worldwide.***

(b) It is ***largest market in the world*** in terms of cash value traded.

(c) It is an ***Over-the-Counter market*** and not a physical place as such. (OTC)

(d) There is ***no central trading location*** and ***no set hours*** of trading.

(e) Market participants who demand and supply currencies represent themselves through their Banks and Key Forex Dealers.

(f) Forex Market operates on ***very narrow spreads*** between buying & selling prices.

D. **Vehicle Currency** A currency that is **widely used to denominate international contracts** made by parties even when it is not the national *currency* of either of the parties. Example – Dollar/ USD

L. **Bid rate/ Buying rate:** It is the rate at which the **dealer is ready to buy the foreign currency** in exchange for domestic currency. Therefore, it is the buying rate.

M. **Ask rate/ Selling rate** :, it is the **selling rate or offer rate** at which foreign currency can be purchase from the dealer.

N. **Cross rate :**There may be two pairs of currencies with one currency being common between the two pairs and is called 'cross rate'

O. **Base currency and Counter currency**

a) In an expression Currency of one country/ Currency of Another country, the currency in denominator is Base currency and that in numerator is Counter currency

b) **Therefor in Direct Quote FC is base currency and HC is counter currency.**

c) **Therefor in Indirect Quote HC is base currency and FC is counter currency**

Point	Direct Quote	Indirect Quote
Meaning	A Direct Quote is the number of units of a Local Currency exchangeable for **one unit of a Foreign Currency.**	An Indirect Quote is the number of units of a Foreign Currency exchangeable for **one unit of local Currency.**
Also known as	European Currency Quotation	American Currency Quotation
Base Currency	Foreign Currency (i.e. Rupee in the above case)	Local Currency (i.e. US $ in the above case)
Counter Currency	Local Currency (i.e. US $ in the above case)	Foreign Currency (i.e. Rupee in the above case)
Relationship	Direct quote= 1/Indirect Quote	Indirect quote= 1/ Direct Quote
Example	Rs. 67/ US $ means 67 is required to buy 1	$ 0.0143 per Rupee means 1 is obtained by selling $ 0.0143

Arbitrage – Buy low sell high

Meaning

1. Arbitrage refers to the practice of making **risk-less profits** by intelligently exploiting price differences of an asset at different dealing places.
2. **Outcome of Arbitrage:** On account of arbitrage, regardless of physical location, at any given moment, all markets tend to have the same exchange rate for a given currency.

1. **Home Currency Depreciation /(or Foreign currency appreciation)** Currency depreciates when its value falls with respect to the value of another currency or a basket of other currencies
2. **Home Currency Appreciation (or Foreign Currency Depreciation) -** Currency appreciates when its value rises with respect to the value of another currency or a basket of other currencie
3. **Devaluation -Deliberate downward** adjustment in the value of a country's currency relative to another currency, group of currencies or standard
4. **Depreciation** Currency depreciates when its value falls with respect to the value of another currency or a basket of other currencies.

Impacts of exchange rate fluctuations on domestic economy

1. Export:

(a) Home Currency Depreciates- Export Demand Increases.

(b) Home Currency Appreciates- Export Demand decreases

2. Imports:

(a) **Home Currency Depreciates- Imports decreases.**

(b) **Home Currency Appreciates-** demand for Imports increases.

3. Domestic Inflation: (relate with Import)

(a) **Home Currency Depreciates-** leads to Cost push Inflation.

(b) **Home Currency Appreciates-** brings down Inflation.

4. Domestic Demand:

(a) **Home Currency Depreciates-** increases the demand for Domestic goods.

(b) **Home Currency Appreciates-** reduces the demand for Domestic goods.

5. Foreign currency Debt

(a) **Home Currency Depreciates-** will lead to more HC outflow towards repayment of loan and Principle.

(b) **Home Currency Appreciates-** will lead to lesser HC outflow towards repayment of loan and Principle.

6. Inward remittance

(a) **Home Currency Depreciates-** Depreciation increases such inflows.

(b) **Home Currency Appreciates-** Appreciation decreases such inflows

7. Current account

(a) **Home Currency Depreciates-** If Export earnings rise faster than the Import Spending, then Current Account will improve.

(b) **Home Currency Appreciates-** Increasing imports and declining Exports cause larger deficits and worsen the Current Account balance.

Exchange rate regime

Fixed

Floating

Managed floating

Hard Peg	The Central Bank sets a fixed and unchanging value for the Exchange Rate.
Soft Peg	The Exchange Rate is generally market determined, but if the Rates tend to be move speedily in one direction, the Central Bank will intervene in the market.
Floating Regime	Market determines the Exchange rate. Supply and Demand of Currency determines the rate of exchange

NER vs RER

(a) The 'real exchange rate' describes 'how many' of a good or service in one country can be traded for 'one' of that good or service in a foreign country. It is denoted by R.

(d) The real exchange rate for single commodity is represented by the following equation:

$$\text{Real exchange rate (R)} = \text{nominal exchange rate} \times \frac{\text{domestic price}}{\text{Foreign Price.}}$$

CHAPTER 10: INDIAN ECONOMY

STATUS OF INDIAN ECONOMY: PRE INDEPENDENCE PERIOD (1850 -1947)

India's Economic Position between 1st and 17th Century

1. It controlled between **one third and one fourth** of the world's wealth.

2. **Handbook of Political Philosophy: Arthashastra - Period: 321-296 BCE**

I. Features of the Book:

a) 'Arthashastra' is the work **Kautilya (Chanakya).**

b) Arthashastra means **primarily, 'wealth' and, secondarily, 'the land'**.

c) Artha is **not** wealth alone; rather it encompasses all aspects of the **material well-being of individuals.**

d) **True kingship:** The preservation and advancement of this good was comprised of seven vital elements, namely the **King, Ministers, Farmlands, Fortresses, Treasury, Military & the Allies.**

The period of British rule can be divided into two sub periods:

The rule of East India Company from 1757 to 1858

a) **Reversal of Indian Market** – From Exporter of Goods to exporter of RM

b) **Tariffs Discriminatory:** This made the exports of finished goods relatively costlier and the imports cheaper.

c) The 'Modern' industrial enterprises in colonial India started to grow in the mid-19th century.

d) **Cotton Mills:** With **9 million spindles** in the 1930s, India got **fifth position** globally.

e) **Jute Mills: Largest** in the world, expanding rapidly in and around **Calcutta**

f) **Iron Industry:** Ranking **eighth** in the world.

g) Just before the Great Depression, India was ranked as the 12th Largest Industrializedcountry measured by the value of manufactured products.

INDIAN ECONOMY: POST-INDEPENDENCE (1947- 1991)

1. **Feature of Indian Economy immediately after Independence:**

   a) Majorly had rural inhabited >> mostly illiterate >> poor population >> literacy just 18 % >> barely 32 years of life expectancy.

2. **Development Strategy - Nehruvian Model:**

   a. The **Nehruvian model** supporting social and economic redistribution and industrialization.

   b. **The Planning Commission of India** was established to particularly plan for the economic development of the nation in line with the **socialistic strategy.**

1948	a. Expanded role for the public sector b. Licensing to the private sector. c. Granted state monopoly for strategic areas such as atomic energy, arms & ammunition & railways. d. The rights to new investments in basic industries were exclusively given to the state.
1950-1980	a. India's average annual rate of growth of GDP- often referred to as the **'Hindu growth rate'- was a modest 3.5 percent.**

Evolution of Economic Reforms

1. Between 1981-1989- This Period named as **early liberalization** were specifically aimed at changing the prevailing thrust on 'in-ward oriented' trade and investment practices.
2. The early reforms of 1980's broadly covered three areas, namely **industry**, **trade** and **taxation**.

   a. List of Some Economic Reforms initiated before 1991:

   (a) **Delicensing of 25 broad categories** of industries.

   (b) **Broad-banding** - firms may switch production between different production lines.

   (c) The ceiling limit of MRTP Regulations have been increased from **20 crore to 100 crore**.

   (d) Establishment of SEBI.

   (e) The open general licence (OGL) list was steadily expande.

   (f) Based on the real effective exchange rate (REER), the rupee was depreciated by about 30.0 per cent from 1985-86 to 1989-90.

THE ECONOMIC REFORMS OF 1991

- India embarked on a bold set of economic reforms in **1991 under the Narsimha Rao government**.

c. The surge in oil prices triggered by the gulf war in 1990.

d. The foreign exchange reserves touched the lowest point with a reserve of only $1.2 billion which was barely sufficient for two weeks of imports.

1. **Reorientation of the economy** from a centrally directed and highly controlled one to a 'market friendly' or market-oriented economy.
2. **Macroeconomic stabilization** by substantial reduction in fiscal deficit.

The policies can be broadly classified as:

1. **Stabilization measures** ›››› short term measures ›››to address the problems of inflation & adverse balance of payment
2. **Structural reform** ››››› long term and of continuing nature›››› aimed at bringing in productivity and competitiveness by removing the structural rigidities in different sectors of the economy.
4. The prominent industrial policy initiatives were:
   a. **Liberalization:** Liberalization refers to relaxation of previous Government restrictions usually in areas of social and economic policies.
   b. **Areas of Liberalization: Liberalization** i.e. economic reforms were introduced in four major sectors viz. -
      - ✓ Industrial Sector,
      - ✓ Financial Sector,
      - ✓ Foreign Trade / External Sector, and
      - ✓ Fiscal Policy.

- The **'New Industrial Policy' was announced by the government on 24 July 1991**.
  1. The New Economic **Policy put an end to the 'License Raj'** by removing licensing restrictions for all industries except for 18. Consequently, 80 percent of the industry was taken out of the licensing framework.
  2. This is subsequently reduced to 5, namely, arms and ammunition, atomic substances, narcotic drugs and hazardous chemicals, distillation and brewing of alcoholic drinks and cigarettes and cigar.
  3. External trade was further liberalized by substituting 'the positive list approach' of listing license-free items on the OGL list with **the negative list approach**.
  4. In 1990-91, the highest tariff rate was 355% which came down to 10% with some exceptions such as automobile at 100%
  5. Rupee was devalued by 18% against the dollar.

NITI AAYOG: A BOLD STEP FOR TRANSFORMING INDIA

A. Background for NITI AAYOG:

a. On 1st January 2015, the apex policy-making body namely Planning Commission, was replaced by the National Institution for Transforming India (NITI) Aayog.

b. The major objective of such a move was to **'spur innovative thinking by objective 'experts' and promote 'co-operative federalism'** by enhancing the voice and influence of the states'.

c. NITI Aayog is expected to serve as a 'Think Tank' of the government. [and] a 'directional and policy dynamo'.

B. NITI Ayog will work towards the following objectives :

a. **To evolve a shared vision** of national development with the active involvement of states.

b. To foster **cooperative federalism**, recognizing that strong states make a strong nation.

c. **Formulate credible plans** at the village level & aggregate these progressively at higher levels.

d. To **design strategic and long-term policy and programme** frameworks.

e. To provide **advice and encourage partnerships between key stakeholders** and national and international like-minded think tanks, as well as educational and policy research institutions.

f. To offer a **platform for the resolution of inter-sectoral and inter departmental issues**.

g. To maintain a **state-of-the-art resource centre**.

h. To focus on **technology up gradation and capacity building** for implementation of programmes.

C. The key initiatives of NITI Aayog are:

a. **'Life'** which envisions replacing the prevalent 'use-and-dispose' economy

b. The **National Data and Analytics Platform (NDAP)** facilitates and improves access to Indian government data

c. **Shoonya campaign** aims to improve air quality in India by accelerating the deployment of electric vehicles

d. **E-Amrit** is a one-stop destination for all information on electric vehicles

e. **India Policy Insights** (IPI)

f. **'Methanol Economy'** programme is aimed at reducing India's oil import bill, greenhouse gas (GHG) emissions, and converting coal reserves and municipal solid waste into methanol, and

g. **'Transforming India's Gold Market'** constituted by NITI Aayog to recommend measures for tapping into the potential of the sector and provide a stimulus to exports and economic growth

D. Weaknesses of NITI AAYOG:

a. NITI has a **limited role**

b. It **does not produce National Plans, Control Expenditures, or Review state plans**.

c. The major shortcoming of NITI is its **exclusion from the Budgeting Process**.

d. It also **lacks Autonomy and Balance of Power** within the policy making apparatus of the central government.

THE CURRENT STATE OF THE INDIAN ECONOMY: A BRIEF OVERVIEW

The Primary Sector

1. Agriculture, with its allied sectors, is largest source of livelihood in India.
2. According to the latest estimates, **47 per cent of India's population is directly dependent** on agriculture for living.
3. Gross Value Added by the agriculture and allied sector **was 18.8% in** 2021 -22 (until 31 January, 2022).
4. Ensure certainty of returns to the farmers through price support (The Minimum Support Price (MSP) of **all 23 mandated crops is fixed at 1.5 times** of all India weighted average cost of production)

- Launch of the **National Mission for Edible Oils**
- **Pradhan Mantri Fasal Bima Yojana (PMFBY)**
- **Mission for Integrated Development of Horticulture (MIDH)**
- Provision of **Soil Health Cards**
- **Parampara at Krishi Vikas Yojana (PKVY)** supporting and promoting organic farming, and improvement of soil health.
- **Promotion of Farmer Producer Organisations (FPOs)** to ensure better income for the producers through an organization of their own.
- **Per Drop More Crop (PDMC)** scheme to increase water use efficiency at the farm level
- Setting up of **E-NAM -a pan-India electronic trading portal** which networks the existing APMC mandis to create a unified national market for agricultural commodities.
- Introduction of **Kisan Rail** for improvement in farm produce logistics, and

10.7.1 The Secondary Sector

1. The Indian industry contributes about 30 % of total GVA by employing over 12.1 crores.
2. The share of informal sector in the economy is more than 50% of GVA.
3. The Department for Promotion of Industry and Internal Trade (DPIIT) has a role in the formulation and implementation of industrial policy and strategies for industrial development in conformity with the development needs and national objectives.

- Reduction of corporate tax to domestic companies giving an option to pay income-tax at the rate of 22%.
- Ease of Doing Business' - India ranks 63rdin the World Bank's annual Doing Business Report (DBR), 2020 as against 77thrank in 2019 registering a jump of 14 ranks.
- The National Single Window System is a one-stop-shop for investment related support.
- PM Gati Shakti - reducing logistics cost.
- National Logistics Policy (NLP) launched in September 2022, aims to lower the cost of logistics.
- The Production Linked Incentive (PLI) Scheme was initiated in March 2020 for 14 key sector.
- FAME-India Scheme (Faster Adoption and Manufacturing of Hybrid and Electric Vehicles)
- 'Udyami Bharat' aims at the empowerment of Micro Small and Medium Enterprises (MSMEs).
- PM Mega Integrated Textile Region and Apparel (PM MITRA):

- 100 per cent FDI under automatic route is permitted for the sale of coal, and coal mining activities, including associated processing infrastructure and for insurance intermediaries.
- Foreign Investment Promotion Board (FIPB) was abolished in May 2017, and a new regime namely Foreign Investment Facilitation Portal (FIF) has been put in place.
- Remission of Duties and Taxes on Export Products (RoDTEP) 2021 formed to replace the existing MEIS (Merchandise Exports from India Scheme) to boost exports.
- Start-up India Programme acts as the facilitator for ideas and innovation in the country. India's rank in the Global Innovation Index (GII) has improved from 81st in 2015 to 40th in 2022.
- The Emergency Credit Line Guarantee Scheme (ECLGS)is a fully guaranteed emergency credit line to monitor lending institutions.

10.7.3 The Tertiary Sector

India has the unique experience of bypassing the secondary sector in the growth trajectory by a shift from agriculture to the services sector.

India's services sector covers a wide variety of activities.

1. The service sector refers to the industry producing intangible goods viz. services as output. The services sector is the largest sector of India and accounts for 53.89% of total India's GVA.
2. The production and consumption of information-intensive service activities such as computing, accounting, inventory management, quality control, personnel administration, marketing, advertising and legal services has increased manifold.
3. India is among the top 10 World Trade Organization (WTO) members in service exports and imports.
4. The Indian services sector is the largest recipient of FDI inflows. FDI equity inflows into the services sector accounted for more than 60 per cent of the total FDI equity inflows into India.
5. India as the seventh largest recipient of FDI in the top 20 host countries in 2021. In 2021-22.

Revision of all formulas of Business economics

CH1 – NO formula

CH2

A Utility

1] $MU_n = TU_n - TU_{n-1}$
or $\frac{\Delta TU}{\Delta Qty}$

2] $\Sigma MU = TU$

3] Consumer surplus = amt a person ready to pay – Price

4] Consumer equilibrium (Cardinal) = $MU = P$
$\frac{MU_x}{P_x} = \frac{MU_y}{P_y}$

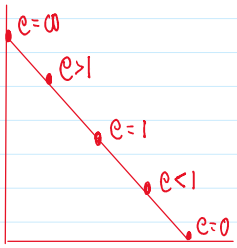
5] Consumer eq (Ordinal) = Slope of IC = Slope of price line
$MRS_{xy} = \frac{P_x}{P_y}$

6] MRS = $\frac{\text{Sacrifice}}{\text{gain}}$

B] Demand

Elasticity

Price elasticity

- %Δ / Proportionate
  - $\frac{\%\Delta \text{ in } Q_D}{\%\Delta \text{ in Price}}$
  - $\frac{\frac{Q_2 - Q_1}{Q_1} \times 100}{\frac{P_2 - P_1}{P_1} \times 100}$
  - Ans generally –ve – Inverse rel^n; if +ve → Exception
- derivative
  - $-\frac{dq}{dp}\frac{p}{q}$
  - (Small / very small Δ)
- geometric
  - $E_p = LS/US$
  - 

- arc
  - Avg responsiveness
  - large Δ
  - $\frac{Q_2 - Q_1}{Q_2 + Q_1} \times \frac{P_2 + P_1}{P_2 - P_1}$
- Total outlay

Price	Exp	dir	ans
↑	↑	Same	inelastic
↓	↓		
↑	↓	Opp	elastic
↓	↑		
↑	no Δ		unit elastic
↓			

Price Elasticity

Price Elasticity

Generally — ve
exception +ve
exception 0

Income elasticity — % Δ Method

$$\frac{\frac{D_2 - D_1}{D_1} \times 100}{\frac{I_2 - I_1}{I_1} \times 100}$$

Generally
Inferior
Nec

+ve
-ve
0

Cross elasticity — % Δ Method

$$\frac{\frac{D_{2x} - D_{1x}}{D_{1x}} \times 100}{\frac{P_{2y} - P_{1y}}{P_{1y}} \times 100}$$

+ve Sub
-ve Comp
0 unrelated
∞ per sub

Advt elasticity — % Δ method

$$\frac{\frac{D_2 - D_1}{D_1} \times 100}{\frac{\epsilon \times P_2 - \epsilon \times P_1}{\epsilon P_1} \times 100}$$

Supply

elasticity

% Δ Method	derivative	Arc
$\frac{\frac{Q_2 - Q_1}{Q_1} \times 100}{\frac{P_2 - P_1}{P_1} \times 100}$	$+\frac{dq}{dp}\frac{P}{q}$	$\frac{Q_2 - Q_1}{Q_2 + Q_1} \times \frac{P_2 + P_1}{P_2 - P_1}$

Generally +ve

If eve is silent try arc first if not then %Δ

☆ Consumer surplus = amt ready to pay - Price
Producer surplus = Price - amt at which producer is ready to sell
Society welfare / total surplus

Chapter 3

Production

1) $MP_n = TP_n - TP_{n-1}$

or $\frac{\Delta TP}{\Delta qty}$

2) Cobb douglas prod^n function ⇒ $Q = KL^{a}C^{1-a}$

addition of power of ans 1 = linear homogenous prod^n function = CRTS

add^n of power ans >1 IRTS

add^n of power ans <1 DRTS

3) $AP_n = \frac{TP}{n}$

MC

4] $TC = TFC + TVC$

5] $\frac{TFC}{Q} = AFC$

6] $\frac{TVC}{Q} = AVC$

7] $\frac{TC}{Q} = ATC$

8] $ATC = AVC + AFC$

9) $MC_n = TC_n - TC_{n-1}$

Or $\frac{\Delta TC}{\Delta qty}$

$TVC_n - TVC_{n-1}$

Or $\frac{\Delta TVC}{\Delta qty}$

10] At 0 units of prod^n ☆ TC = TFC (& TVC = 0)

CH-3

Revenue
- Acc cost / exp cost
Acc profit
- Implicit cost
Economic Profit

Explicit cost
+ Implicit cost
= Economic Cost

Revenue

$MR_n = TR_n - TR_{n-}$ or $\frac{\Delta TR}{\Delta qty}$.

$AR = \frac{TR}{Q} = P$

Market

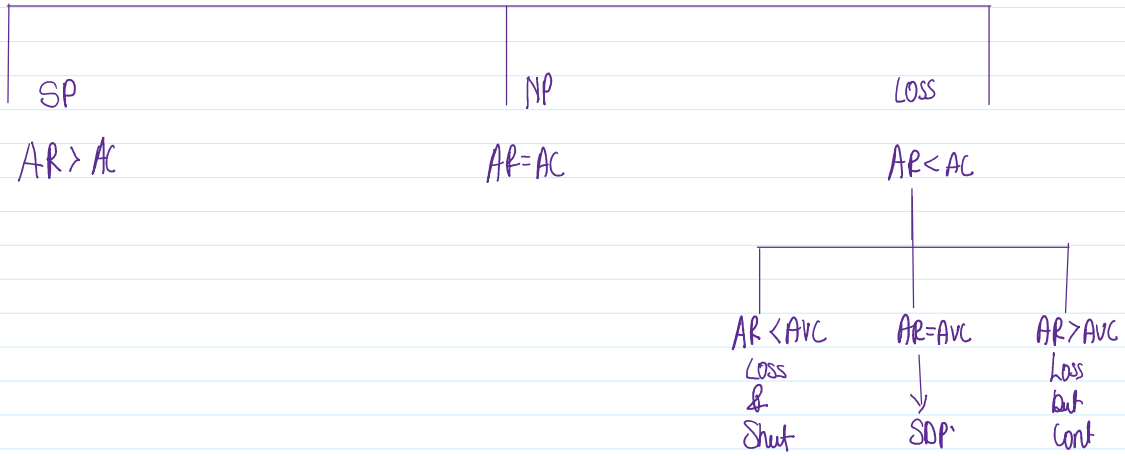
Profit max cond^n / output determination cond^n.

① $MC = MR$

&

MC curve cuts MR from below

②



③ $MR = AR\left(\frac{e-1}{e}\right)$

$e > 1$	MR +ve
$e < 1$	MR -ve
$e = 1$	MR 0

CH-6 National income

1] Circular flow

	Leakage		Injection	ans
a. 2 Sector	S	=	I	Equilibrium
	S	>	I	Shrink
	S	<	I	Expand

	Leakage		Injection	ans
b. 3 Sector	S+T	=	I+G	Equilibrium
	S+T	>	I+G	Shrink

b. 3 Sector

Leakage		Injection	ans
S + T	=	I + G	Equilibrium
S + T	>	I + G	Shrink
S + T	<	I + G	Expand

c. 4 Sector

Leakage		Injection	ans
S + T + m	=	I + G + x	Equilibrium
S + T + m	>	I + G + x	Shrink
S + T + m	<	I + G + x	Expand

2] Convertors

a. Gross − dep^n = Net

b. Domestic + NFIA = National NFIA = Fac inc rec − Fac inc paid
note NFIA is not import expor

c. Fac cost + (Product tax − Product sub = MP
Fac cost + (IDT − Sub) = MP
Fac cost + NIT = MP

3 NI aggregates

GDP FC	GDP MP	GNP FC	GNP MP
NDP FC	NDP MP	NNP FC	NNP MP.

4] GNDI = Gross nat dispo inc
= GNP_{MP} + net trf payment from ROTW.

5] NNDI = Net nat dispo inc
NNP MP + net trf payment from ROTW

6] Private inc = NNP FC (national inc)
− Govt (PSU + admin)
+ Int on nat debt
+ Net trf payment from Govt & ROTW

7] Personal inc = Private inc
− corporate tax
− Undistributed Profit

8] Personal dispo inc = Personal inc
− Income tax.

9] Per capita income = $\frac{\text{National inc}}{\text{mid year population}}$

10] Nominal GDP = Qty of Gds × Current price

11] Real GDP = Qty of Gds × Base price

11] Real GDP = Qty of Gds × Base price

12] Nominal to Real GDP ⟹ Nominal GDP × $\frac{\text{Base Price}}{\text{Current price}}$ = Real GDP.

13] GDP deflator = $\frac{\text{Nominal GDP}}{\text{Real GDP}} \times 100$ → less than 100% Price fall
greater than 100% Price Rise
100% No Δ in Price

14] Inflation = $\frac{\text{def } Y_2 - \text{def } Y_1}{\text{def } Y_1} \times 100$

15] Value added method

Final Value of Goods & Service produced of P|S|T [Sold + CI − OP]
− Intermediate Consumption

GDP MP
− depⁿ
+ NFIA
− NIT
NNP FC

16] Income method

Lab Inc
+ Prop Inc | Operating Surplus → Rent + wages + int + Profit
+ MI
NDP FC
+ NFIA
NNP FC

17] Expenditure Method.

C + I + G + X − M
GDP MP
− depⁿ
+ NFIA
− NIT ⇒ NNP FC

18]. MPC = b = $\frac{\Delta \text{ Cons}}{\Delta \text{ Inc}}$ $\frac{\Delta C}{\Delta Y}$

19] MPS = 1 − b $\frac{\Delta \text{ Savings}}{\Delta \text{ Inc}}$ $\frac{\Delta S}{\Delta Y}$

20] APC = $\frac{\text{Tot cons}}{\text{Tot Income.}}$

21] Equilibrium 2, 3 & 4 sector.

2 Sector 3Sector 4 sector

$y = C + I$

$y = a + byd + I$

$y = a + b(Y - tax + tp) + I$

$y = a + by - btax + btp + I$

$y - by = a - btax + btp + I$

$y(1-b) = a - btax + btp + I$

$$y = \frac{1}{(1-b)} \times a - btax + btp + I$$

$y = C + I + G$

$y = a + byd + I + G$

$y = a + b(Y - tax + tp) + I + G$

$y = a + by - btax + btp + I + G$

$y - by = a - btax + btp + I + G$

$$y = \frac{1}{(1-b)} \times a - btax + btp + I + G$$

$y = C + I + G + x - m$

$$y = \frac{1}{(1-b)} \times a - btax + btp + I + G + x - m$$

22 Investment multiplier

a. $K = \frac{1}{MPS}$ or $\frac{1}{1-MPC}$

b $K = \frac{\Delta Y}{\Delta I}$

CH-7

Public finance

a. If +ve externality — Private cost > Social cost

−ve Externality — Private cost < Social cost

Bec

Private cost + External cost = Social cost

b. Surplus Budget — $ER > EE$

deficit Budget — $ER < EE$

Balance Budget — $ER = EE$

Revenue defect — Rev Exp − Rev Recep

Cap def — Cap exp − cap Rec

Overall defect ≡ Total estimate Exp − Tot estimate Rec.

$(RE + CE) - (RR - CR)$

Fiscal deficit = Tot Exp − Total Receipts (ex borrowings)

Primary def = Fiscal def − int on borrowings

Money Market

a QTM $PT = MV + M'V'$

b. Cambridge $M^d = K(Py)$ nominal inc

%.

C Inventory approach = $DO = \sqrt{\frac{2AT}{H}}$

d. M_1 = Currency notes & coins with Pub
+ net demand depo
+ Oth depo RBI

$M_2 = M_1$ + PO Savings

$M_3 = M_1$ + net time depo

$M_4 = M_3$ + total depo of PO (ex NSC)

e Reserve Money = Currency notes & Coins
+ Banker's depo with RBI
+ Oth dep RBI

f. New Monetary Aggs

Currency with the Public
Add: Demand Deposits with the Banking System
Add: Other Deposits with RBI
New Monetary Aggregate 1 (denoted as NM1)
Add: Short term Time Deposits of Residents (including and up-to Contractual maturity of 1 Year)
New Monetary Aggregate 2 (denoted as NM2)
Add: Long term time deposits of Residents
Add: Call / Term Funding from Financial Institutions
New Monetary Aggregate 3 (Denoted as NM3)
Add: All deposits with the Post Office Savings Banks (excluding National Saving certificates)
Liquidity Aggregate 1 (Denoted as L1)
Add: Term Deposits with Term Lending Institutions and Re-financing Institutions
Add: Term Borrowing by Financing Institutions and Certificates of Deposits issued by Financing Institutions
Liquidity Aggregate 2 (Denoted as L2)
Add: Public Deposits of Non- Banking Financial Companies
Liquidity Aggregate 3 (Denoted as L3)

g Credit multiplier = $\frac{1}{\text{Res ratio}}$

h Money Multiplier $M = m \times MB$

M: Money; m: Money Multiplier; MB: fiat money

Money Supply ↙ Money Multiplier ↓ fiat money ↑

[n-g] International trade

Cross rate $\frac{A}{B} \times \frac{B}{C} = \frac{A}{C}$

Direct Quote $= \frac{1}{\text{Indirect Quote}}$

Indirect Quote $= \frac{1}{\text{Direct Quote}}$

Real Exchange rate = Nominal Exchange rate $\times \frac{\text{domestic price}}{\text{foreign price}}$