

INDEX

S.NO.	NAME OF THE TOPIC	PAGE NO.	
1	Unit wise Weightage		
2	Syllabus		
3	<i>Common errors which are generally done by students of Economics in Board Examination</i>		
4	Introduction		
5	Consumer Behaviour and Demand		
6	Producer Behaviour and Supply		
7	Forms of Market and Price Determination		
8	National Income and Related Aggregates		
9	Money and Banking		
10	Determination of Income and Employment		
11	Government Budget and the Economy		
12	Balance of Payment		
13.	Sample Paper I		
14	Sample Paper II		
18	Latest CBSE Sample Paper (2014-15)		

SYLLABUS

PART– A: INTRODUCTORY MICROECONOMICS

UNIT1: INTRODUCTION

11 PERIODS

Meaning of Micro-economics & Macro-economics.

What is an economy? Central problems of an economy-what, how and for whom to produce: concepts of production possibility frontier and opportunity cost.

UNIT2: CONSUMER EQUILIBRIUM AND DEMAND

34 PERIODS

Consumer's equilibrium—meaning of utility, marginal utility, law of diminishing marginal utility, conditions of consumer's equilibrium using marginal utility analysis.

Indifference curve analysis of Consumer's equilibrium—the consumer's budget (budget set and budget line), preference of consumer (indifference curve, indifference map) and conditions of Consumer's equilibrium

Demand, market demand, determinants of demand, demand schedule, demand curve and its slope, movement along and shifts in the demand curve; price elasticity of demand— factors affecting price elasticity of demand; measurement of price elasticity of demand— (a) percentage change method and (b) geometric method (linear demand curve); relationship between price elasticity of demand and total expenditure.

UNIT3: PRODUCER BEHAVIOUR AND SUPPLY

34 PERIODS

Production function Short run & Long Run:

Total Product, Average Product and Marginal Product, .Returns to a Factor and Returns to Scale.

Cost and Revenue: Short run costs—total cost, total fixed cost, total variable cost; Average fixed cost, average variable cost and marginal cost— meaning and their relationship.

Revenue – total, average and marginal revenue.

Producer's equilibrium—meaning and its conditions in terms of marginal revenue—marginal cost approach.

Supply, market supply, determinants of supply, supply schedule, supply curve and its slope, movements along and shifting supply curve, price elasticity of supply; measurement of price elasticity of supply— (a) percentage method and (b) geometric methods.

UNIT 4: FORMS OF MARKET AND PRICE DETERMINATION UNDER PERFECT COMPETITION WITH SIMPLE APPLICATIONS.

31 PERIODS

Perfect Competition Features: Determination of market equilibrium and effects of shift in demand and supply

Other market forms: Monopoly, monopolistic competition, oligopoly Market– their meaning and features.

SIMPLE APPLICATIONS OF TOOLS OF DEMAND AND SUPPLY- Price Ceiling & Price Floor

PARTB: INTRODUCTORY MACRO ECONOMICS

UNIT 5: NATIONAL INCOME AND RELATED AGGREGATES 30 PERIODS

Some basic concepts: consumption goods, capital goods, final goods, intermediate goods; stocks and flows; gross investment and depreciation.

Circular flow of income; Methods of calculating National Income–Value Added or Product method, Expenditure method, Income method.

Aggregates related to National Income:

Gross National Product(GNP), Net National Product(NNP), Gross and Net Domestic Product(GDP and NDP)–at market price and factor cost; National Disposable Income(gross and net), Private Income, Personal Income and Personal Disposable Income; Real and Nominal GDP. GDP and welfare.

UNIT 6: MONEY AND BANKING 18 PERIODS

Money – its meaning and function.

Supply of money-Currency held by the public and net demand deposit held by commercial banks.

Money creation by the commercial banking system.

Central banking and its functions (example of the Reserve Bank of India).

Bank of issue, government bank, bankers bank, controller of credit through bank rate, CRR, SLR, Repo rate, reverse Repo Rate, Open Market Space & Margin Requirement.

UNIT 7: DETERMINATION OF INCOME AND EMPLOYMENT 27 PERIODS

Aggregate demand and its components.

Propensity to consume and propensity to save (average and marginal).

Short-run equilibrium output; investment multiplier and its multiplier

mechanism. Meaning of full employment and involuntary unemployment.

Problems of excess demand and deficient demand; measures to correct them–change in government spending, taxes and money supply.

UNIT8: GOVERNMENT BUDGET AND THE ECONOMY**17 PERIODS**

Government budget– meaning, objectives and components.

Classification of receipts–revenue receipt and capital receipt; classification of expenditure–revenue expenditure and capital expenditure.

Measures of government deficit– revenue deficit, fiscal deficit, primary deficit: their meaning.

UNIT 9: BALANCE OF PAYMENTS**14 PERIODS**

Balance of payments account–meaning and components; balance of payments deficit–meaning.Foreign exchange rate– meaning of fixed and flexible rates and managed floating.

Determination of exchange rate in a free market.

RECOMMENDED TEXT BOOKS

1. Introductory Micro Economics , Class XII,NCERT
2. Introductory Macro Economics , Class XII,NCERT
3. Supplementary Reading Material in Economics ,Class XII, CBSE

Weightage
ECONOMICS
CLASS XII

PART A: INTRODUCTORY MICROECONOMICS

Units No.		Marks
1.	Introduction	06
2.	Consumer Behaviour and Demand	16
3.	Producer Behaviour and Supply	16
4.	Forms of Market and Price Determination	12

PART B: INTRODUCTORY MACROECONOMICS

5	National Income and Related Aggregates	15
6	Money and Banking	08
7	Determination of Income and Employment	12
8	Government Budget and the Economy	08
9	Balance of Payments	07

Total	100
--------------	------------

Note: Weightage may vary in question paper due to multi-disciplinary question.

**COMMON ERRORS WHICH ARE GENERALLY DONE BY STUDENTS OF
ECONOMICS IN BOARD EXAMINATION:**

- 1. Inability to understand the questions correctly due to language problem. Read the questions carefully twice or thrice. Due to the same problem, they are unable to convey the answers suitably. Practice writing the answers at home to avoid this problem.**
- 2. Inadequate skills in presenting the diagrams due to lack of practice. For e.g. drawing of demand curve instead of supply curve and vice versa; drawing of cost curves instead of revenue curves and vice versa. Diagrams should be practiced regularly.**
- 3. Students are not practicing mathematical problems regularly. The numerical questions and formulae should be practiced.**
- 4. Overall presentation of answers is not as per CBSE expectations.**
- 5. All questions are not attempted by the students. They should attempt all the questions.**
- 8. Inadequate practice and revision leads to confused presentation of answer.**

9. Writing question number wrongly.Hence writes the question number correctly.
10. Writing answers of one question at different places.Avoid splitting of answer and write the answer at one place.
11. Frequently asked questions in the board examination, should be revised thoroughly.(Last five year board questions) CBSE 2015 sample papers should be practiced at home within stipulated time period.
12. Devote minimum of one hour's time daily at home for self study in economics.
14. Time management should be adhered to strictly and regular practice at home will help to avoid shortage of time/inconvenience during board exams.

WISH YOU ALL THE BEST.

PART A

INTRODUCTORY

MICROECONOMICS

UNIT 1: INTRODUCTION

KEY CONCEPTS

1. **I. MICRO ECONOMICS:** It is a study of behavior of individual unit of an economy such as individual consumer, producer etc.
II. MACRO ECONOMICS: Study the behavior of the economy as a whole such as GDP, NI.
2. **ECONOMY:** An economy is a system by which people get their living.
3. **TYPES OF ECONOMY:**
 - (i) Capitalist economy/ Market economy
 - (ii) Socialist economy/Planned economy
 - (iii) Mixed economy
4. **MARKET ECONOMY:** It is an economic system, in which all material means of production are owned and operated by the private with profit motive.
5. **PLANNED ECONOMY:** In this economy all material means of production are owned by the government or by a centrally planned authority.
6. **ECONOMIC PROBLEM:** "An economic problem is basically the problem of choice" which arises due to scarcity of resources having alternative uses".
7. **CAUSES OF ECONOMIC PROBLEM :**
 - i) Unlimited wants
 - ii) Limited resources having alternative uses
 - iii) Alternative uses of resources.
8. **BASIC (CENTRAL) ECONOMIC PROBLEMS**
 - i) Allocation of resources
 - a. What to produce?
 - b. How to produce?
 - c. For whom to produce
 - ii). Fuller Utilization of resources
 - iii.) Growth of resources
9. **PRODUCTION POSSIBILITY CURVE (PPC):** PPC curve shows all the possible combination of two goods that can be produced with the help of available resources and technology.
10. **MARGINAL OPPORTUNITY COST:** MOC is the amount of other good which is to be sacrificed for production of additional unit of another good. $\frac{\Delta \text{loss}}{\Delta \text{gain}}$
11. **MARGINAL RATE OF TRANSFORMATION:** MRT is the ratio of units of one good sacrificed to produce one more unit of other good.

$$MRT = \frac{\text{Unit of one good sacrificed } \Delta y}{\text{More unit of other good produced } \Delta x}$$

12. SCARCITY OF RESOURCES: Scarcity of resources means shortage of resources in relation to their demand.

13. OPPORTUNITY COST: It is the value of factor in its next best alternative uses.

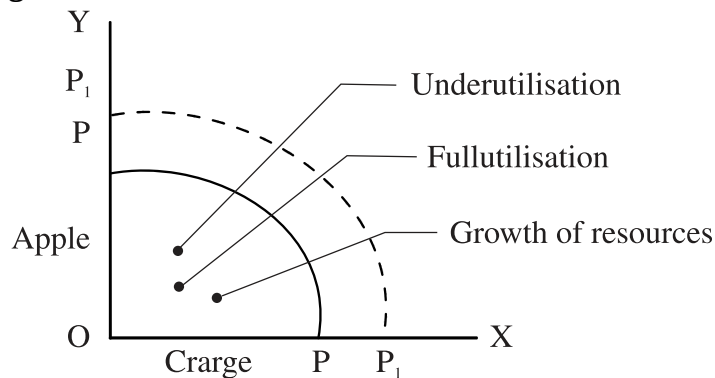
SHORT ANSWER QUESTIONS (3 / 4 MARKS)

1. What is production possibility frontier?

PPC curve shows all the possible combination of two goods that can be produced with the help of available resources and technology.

2. Draw a production possibility curve and mark the following situations:

- a) Under utilization of resources
- b) Full employment of resources
- c) growth of resources



Shape of PPC curve and marginal opportunity cost.(Properties of PPC)

1) PPC curve is a downward sloping.

In a full employment economy, more of one goods can be obtained only by giving up the production of other goods. It is not possible to increase the production of both of them with the given resources.

2) The shape of the production possibility curve is concave to the origin.

The opportunity cost for a commodity is the amount of other commodity that has been foregone in order to produce the first.

The marginal opportunity cost of a particular good along the PPC is defined as the amount sacrificed of the other good per unit increase in the production of the good in question.

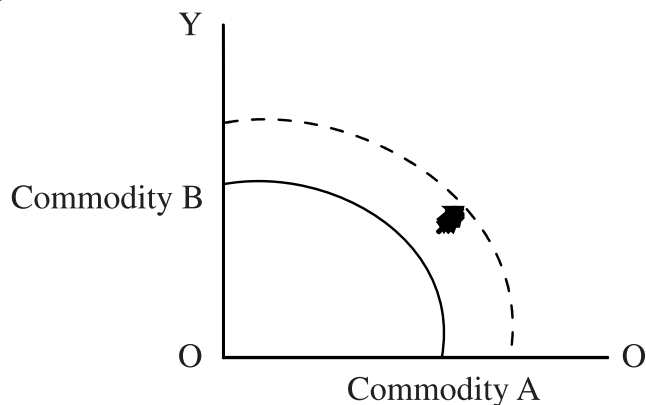
Increasing marginal opportunity cost implies that PPC is concave.

Shift in PP curve

(1) Upward shift

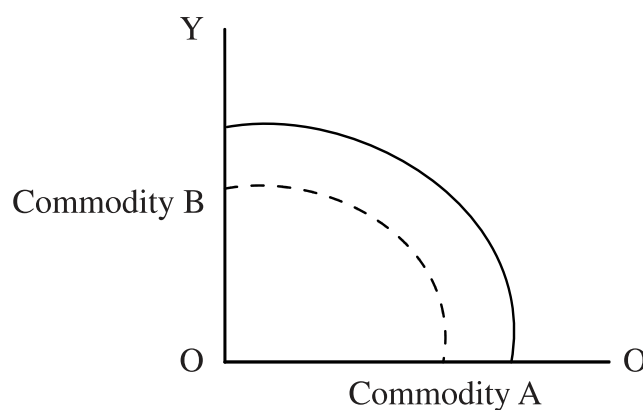
(1) When there is improvement in technology.

(2) Increase in resources.



(2) Downward shift

When Resources depletes



3. Distinguish between micro economics and macro economics.

SNo	Micro economics	Macro economics
1	It studies individual economic unit.	It studies aggregate economic unit.
2	It deals with determination of price and output in individual markets	It deals with determination of general price level and output in the economy.
3	Its central problems are price determination and allocation of resources.	Its central problem is determination of level of Income and employment in the economy.

HOTS

1. Does massive unemployment shift the PPC to the left?

Ans:-No, Massive unemployment will not shift the PPC to the left because PPC shows maximum capacity of production with the available

resources, however production will fall due to unemployment. Massive unemployment shows underutilization of resources.

2. What does the slope of PPC show?

Ans. The slope of PPC indicates the increasing marginal opportunity cost.

3. From the following PP schedule calculate MRT of good x.

Production possibilities	A	B	C	D	E
Production of good x units	0	1	2	3	4
Production of good y units	14	13	11	8	4

Production of good X units	Production of good Y units	MRT = $\Delta y / \Delta x$
0	14	-
1	13	1:1
2	11	2:1
3	8	3:1
4	4	4:1

UNIT 2: CONSUMER EQUILIBRIUM AND DEMAND

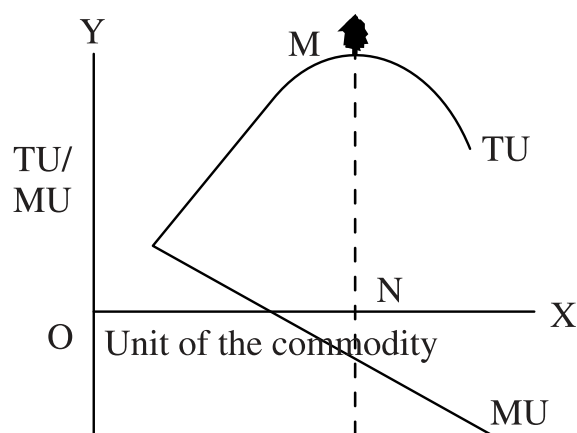
KEY CONCEPTS

Utility:- The satisfaction which a consumer gets from using/consuming a good or service.

Total Utility:- The total satisfaction a consumer gets from a given commodity/service. (or)

Sum of marginal utility is known as total utility.

Marginal Utility:- An addition made to total utility by consuming an extra unit of commodity. Sum of marginal utilities derived from various goods is known as total utility.



Graph-1: The relationship between TU and MU

Relationship between MU and TU:

i) When MU is positive TU rises.

ii) When MU is zero TU is maximum.

iii) When MU is negative, TU fall

Law of Diminishing Marginal Utility:-

It states that as the consumer consumes more and more units of a commodity, the marginal utility derived from each successive unit goes on diminishing.

Consumer Equilibrium:

Refers to a situation when he spends his given income on purchase of a commodity or commodities in such a way that yields him maximum satisfaction.

Condition of consumer equilibrium in case of single commodity:

MU in terms of money= Price.

MU of product / MU of a Rupee. = Price

Condition of consumer equilibrium in case of several commodity:

1. $\frac{MUX}{P_x} = \frac{MUY}{P_y} = MUM$

2. $\sum \text{of expenditure} = \text{Money income}$

Consumer Equilibrium through Indifference Curve:-

Budget Set:-Set of bundles (combination of two goods) affordable to consumer

Budget line:-It refers to all combinations of two goods which a consumer can buy with his entire income at given price.

Equation of Budgetline:- $P_1X_1 + P_2X_2 = M$

Indifference Curve:- It shows different combination of two goods which gives consumer same level of satisfaction to consumer

Properties of IC:-

1. It slopes downwards from left to right
2. It is always convex to the origin due to falling of Marginal Rate of Substitution (MRS)
3. Higher IC always gives higher level of satisfaction
4. Two IC never intersect to each other.

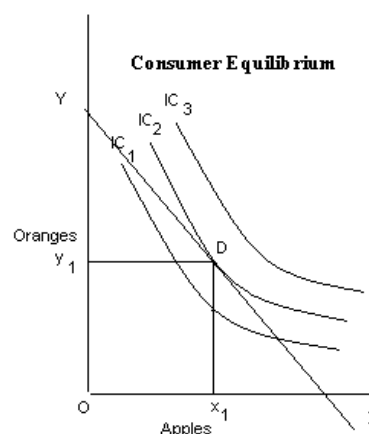
Indifference Map:-Group of indifference curves that gives different levels of satisfaction to the consumer.

Marginal Rate of Substitution (MRS):-It is the rate at which a consumer is willing to give up one good to get another good.

Consumer Equilibrium (I C approach):-

At a point where budget line is tangent to the indifference curve, $MRS = P_x / P_y$,

i.e., Marginal rate of substitution = ratio of prices of



two goods.

Conditions:

1. $MRS_{xy} = \frac{P_x}{P_y}$
2. MRS should be decreasing

DEMAND

Demand:-Quantity of the commodity that a consumer is able and willing to purchase in a given period at a given price.

Demand Schedule:-It is a tabular representation which shows the relationship between price of the commodity and quantity purchased.

Demand Curve:-It is a graphical representation of demand schedule.

Slope of Linear demand curve: $q = a - bp$.

Individual Demand: - Demand by an individual consumer.

Market Demand: - It refers to horizontal summation of individual demand.

Factors Affecting Individual Demand for Commodity/Determinants of Demand:-

1. Price of the commodity itself
2. Income of the consumer
3. Price of related goods
4. Taste and Preference
5. Expectations of future price change

Demand Function:- $D_x = f(P_x, Y, P_r, T)$

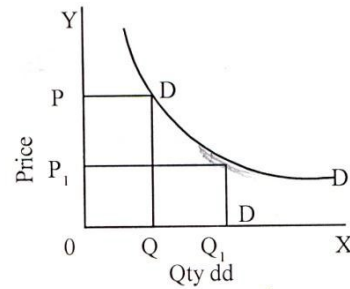
Substitute Goods:-Increase in the price of one good causes increase in demand for other good. E.g. Tea and Coffee

Complementary Goods:-Increase in the price of one good causes decrease in demand for other good. E.g. Petrol and Car

Normal Good:-Goods which are having positive relation with income. It means when income rises, demand for normal goods also rises.

Inferior Goods:-Goods which are having negative relation with income. It means less demand at higher income and vice versa.

Law of Demand: - Other things remain constant, demand of a good falls with rise in price and vice versa.



Demand Schedule:-

Price	Quantity
1	4
2	3
3	2
4	1

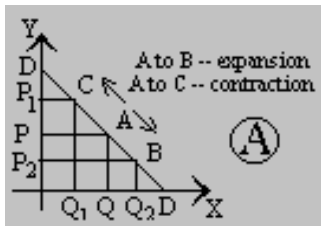
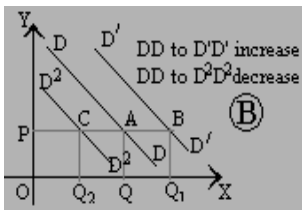
Changes in Demand: - They are of **two types**:-

- 1) **Change in Quantity Demanded (Movement along the same demand curve)**
- 2) **Change in Demand (Shifts in demand)**

1) Change in Quantity Demanded: -

Demand changes due to change in price of the commodity alone, other factors remain constant; are of two types;

- A) **Expansion of demand** : More demand at a lower price
- B) **Contraction of demand** : Less demand at a higher price

Change in Quantity Demanded	Change in Demand
Due to price change. Movement will take place. Extension and contraction.  Diagram	Due to factors other than price change. Shifting will take place. Increase and decrease.  Diagram

2) Change in demand:-

Demand changes due to factors other than price of the commodity are of two types:

- A) **Increase in demand**:- more demand due to change in other factors, price remaining constant.
- B) **Decrease in demand**:- less demand due to change in other factors, price remaining constant.

Causes of Increase in Demand:-

1. Increase in Income.
2. Increase/favorable change in taste and preference.
3. Rise in price of substitute good.
4. Fall in price of complementary good.

Note: Increase in income causes increase in demand for normal good.

Causes of Decrease in Demand:

1. Decrease in Income.
2. Unfavorable/Decrease in taste and preference
3. Decrease in price of substitute good.
4. Rise in price of complementary good.

Note: Decrease in income causes Decrease in demand for normal good

Price Elasticity of Demand (Ed):

It refers to the degree of responsiveness of change in quantity demanded to change in its price.

Ed.= Percentage change in quantity demanded/Percentage change in price.

$$Ed.=P/q \times \Delta q/\Delta p$$

P = Original price

Q = Original quantity

Δ = Change

Methods of Measuring Price Elasticity of Demand:-



Proportionate/Percentage Method:

$$Ed = \frac{\% \text{ change in Quantity demanded}}{\% \text{ change in price}}$$



OR



$$\frac{\frac{\frac{\Delta Q}{Q} \times 100}{\frac{\Delta P}{P} \times 100}}{\frac{\Delta Q}{Q}} = \frac{\Delta Q}{Q} \times \frac{\Delta P}{P} = \frac{P}{Q} \times \frac{\Delta Q}{\Delta P}$$

Q. The Price of ice cream is Rs.20 per cup and demand is for 200 cup. If the price of ice cream falls to Rs.15 demand increases to 300 cups. Calculate elasticity of demand.

Sol.: $P = 20; P_1 = 15; \Delta P = 5$
 $Q = 200; Q_1 = 300; \Delta Q = 100$
 $E_d = \frac{100}{5} \times \frac{20}{200} = 2$

Total Outlay Method (Expenditure Method)

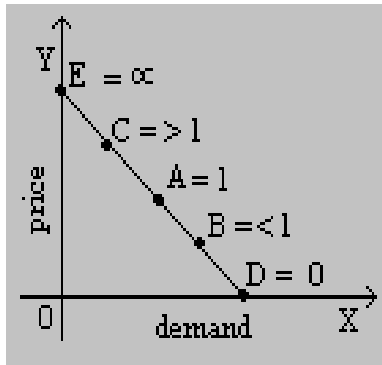
If with the fall in price, total expenditure increases elasticity of demand is greater than one, if total expenditure remain constant, elasticity is equal to one and if the total expenditure decreases elasticity is less than one.

Situation	Price of Commodity (Rs)	Quantity	Total Expenditure (Rs)	Effect on Total Expenditures	Elasticity of Demand
A	2 1	4 8	8 8	Same Total Expenditure	Unitary Elastic $E_d = 1$
B	2 1	4 10	8 10	Total Expenditure increases	Greater than unitary $E_d > 1$
C	2 1	3 4	6 4	Total Expenditure decreases	Less than unitary $E_d < 1$

Geometric / Point Method:-

This measures the elasticity of demand at different points on the same demand Curve.

$$E_d = \frac{\text{lower segment of the demand curve}}{\text{Upper segment of the demand curve}}$$



1. What is the difference between cardinal and ordinal utility analysis.

	Cardinal Utility	Ordinal Utility
1	Given by Prof. Alfred Marshall	Given by Prof. J.R. Hicks
2	Utility can be measured numerically	It cannot be measured numerically
3	Unit of measurement is 'utils'	Possible for a consumer to scale his preferences.

2. What is meant by consumer's equilibrium? State its conditions in case of two commodities approach.

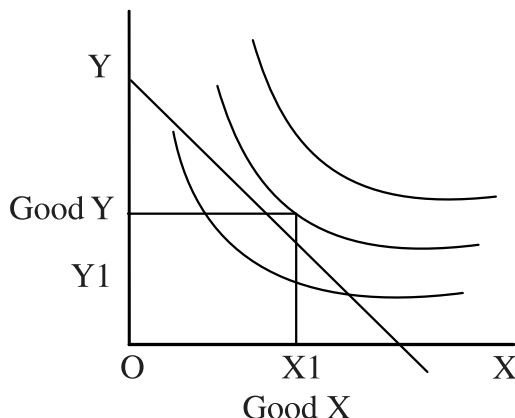
- a) **Meaning:** A consumer is said to be in equilibrium when he is spending his given income on various goods and services to get maximum satisfaction.
- b) **Conditions:**
- i) $MU_x / P_x = MU_y / P_y$ (MUs are equal to their prices)
 - ii) $P_x Q_x + P_y Q_y = M$
 - iii) M (Money spent is equal to income)

6 MARKS QUESTIONS

1. How is equilibrium achieved with the help of indifference curve analysis?

Ans): In the indifference curve approach, consumer's equilibrium is achieved at the point at which the budget line is tangent to an indifference curve. This is the point of maximum satisfaction.

- b) Diagram:



c) Explanation of the diagram:

- i) 'AB' is the budget line.
- ii) Indifference map (set of IC_1, IC_2, IC_3) shows consumers scale of preferences between different combinations of good 'x' and good 'y'
- iii) Consumers' equilibrium will achieve where budget line (AB) is tangent to the IC_2 .

d) Essential conditions for consumers equilibrium:

- i) Budget line must be tangent to indifference curve i.e., $MRS_{xy} = P_x / P_y$
- ii) Indifference curve must be convex to the origin.

e) Consumers can not achieve the following:

- i) P and R points on budget line give satisfaction but they lie on lower indifference curve IC_1 . Choosing point 'q' puts him on a higher IC which gives more satisfaction.
- ii) He cannot move on IC_3 , as it is beyond his money income.

2. Explain the factors affecting the market demand of a commodity.

Ans:- i) **Factors affecting market demand:**

- a) **Price of the commodity:** When the price goes up demand for it falls and vice-versa.
- b) **Income of the consumers:** When the income of the consumers goes up the demand for a commodity also goes up.
- c) **Price of related goods :**
 - **Complementary goods:** The demand for a commodity rises with a fall in the price of its complementary good (Car and petrol)
 - **Substitute goods:** Demand for a commodity falls with a fall in the price of other substitute good (Tea & Coffee).
- d) **Tastes and preferences:** Any favourable change in consumers' tastes will lead to increase in market demand and any unfavourable change in Consumers tastes will lead to decrease in market demand.
- e) **Consumer's group:** More the consumers more will be market demand and vice-versa.

3. Explain the various degrees of price elasticity of demand with the help of diagrams.

Ans:- There are five degrees of price elasticity of demand. They are,

- a) **Perfectly elastic demand ($E_d = \infty$):** - a slight or no change in the price leads to infinite changes in the quantity demanded.
- b) **Perfectly Inelastic demand ($E_d = 0$):** - Demand of a commodity does not change at all irrespective of any change in its price.

- c) **Unitary elastic demand($E_d=1$)**:-When the percentage change in demand(%) of a commodity is equal to the percentage change in price.
- d) **Greater than unitary elastic demand($E_d>1$)**:-When percentage change in demand of a commodity is more than the percentage change in its price.
- e) **Less than unitary elastic demand($E_d<1$)**:-When percentage change in demand of a commodity is less than the percentage change in its price.

FREQUENTLY ASKED QUESTIONS– CBSE BOARD EXAMINATIONS

1. Define Microeconomics.
2. Why an economic problem does arise?
3. What are the central problems of an economy?
4. Define opportunity cost.
5. Define marginal opportunity cost.
6. Distinguish between 'micro' and 'macro' economics.
7. Why PPC is Concave from the origin.
8. Define Marginal Rate of Transformation (MRT)
9. Explain the problem, of 'what to produce' and 'how to produce.'
10. Explain the central problem of how to produce with the help of an example.
11. What is an indifference curve?
12. Define Utility.
13. What is budget set?
14. Define budget line.
15. Define MRS.
16. A consumer consumes only two goods. Explain the conditions of consumer's equilibrium with the help of Ic a nalysis.
17. For a consumer to be in equilibrium, why must MRS be equal to the ratio of price of two goods?
18. What is an indifference map?
19. Explain the law of demand with the help of diagram and schedule.
20. Write three causes of increase / decrease in demand
21. Distinguish between the change in quantity demanded and change in demand.
22. Explain any three factors or determinants of demand.
23. Explain any three factors affecting elasticity of demand

24. Explain the price elasticity of demand through geometric method.
25. Explain the price elasticity of demand through expenditure method
26. Explain the properties of indifference curve.
27. Why can not two indifference curves meet each other?
28. Why is indifference curve convex to origin?
29. Why does higher indifference curve gives higher levels of satisfaction?

UNIT 3: PRODUCER BEHAVIOUR AND SUPPLY

KEY CONCEPTS

Production: Combining inputs in order to get the output is production.

Production Function: It is the functional relationship between inputs and output in a given state of technology. $Q = f(L, K)$

Q is the output, L: Labor, K: Capital

Fixed Factor: The factor whose quantity remains fixed with the level of output.

Variable Factor: Those inputs which change with the level of output.

PRODUCTION FUNCTION AND TIME PERIOD

1. Production function is a long period production function if all the inputs are varied.
2. Production function is a short period production function if few variable factors are combined with few fixed factors.

Time period, can be classified as:

1. Very short period or market period
2. Short period / short run
3. Long period / long run

Market period: is that period where supply/ output cannot be altered or changed.

Short period/run: is that period where supply/output can be altered/changed by changing only variable factors of production and fixed factors of production remain fixed.

Long period: is that period where all factors of production are changed to bring about changes in output / supply. No factor is fixed and all the factors are variable.

Difference between short run & long run :

Basis	Short Run	Long Run
Meaning	Only variable factors are changed	All factors are changed
Price Determination	Demand is active.	Both demand & supply play an important role.
Classification	Factors are classified as fixed & variable.	All factors are variable.

Concepts of product:

Total Product-Total quantity of goods produced by a firm/industry during a given period of time with given number of inputs.

$$TP = \sum MP$$

Average product=output per unit of variable input.

$$AP = TP / TP/L$$

Average product is also known as average physical product.

Marginal product (MP): refers to addition to the total product, when one more unit of variable factor is employed.

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

LAW OF VARIABLE PROPORTION OR RETURNS TO A VARIABLE FACTOR

In short period, when only one variable factor is increased, keeping other factors constant, the total product (TP) initially increases at an increasing rate, then increases at a decreasing rate and finally TP decreases.

MPP initially increase then falls but remains positive then 3rd phase becomes negative.

Explanation of law of variable proportion with a schedule and a diagram

Schedule of Law of variable proportion

Fixed factor	Variable factor	Total product	Marginal product	Phase
Land in acres	Labour	Units	Units	
1	0	0	-	I-Increasing returns to a factor
1	1	5	5	
1	2	15	10	
1	3	30	15	
1	4	40	10	II – diminishing returns to a factor
1	5	45	5	
1	6	45	0	
1	7	40	-5	III-Negative returns to a factor

Phase I/ Stage I/Increasing returns to a factor.

- TPP increases at an increasing rate
- MPP also increases.

Phase II/ Stage II/Diminishing returns to a factor

- TPP increases at decreasing rate

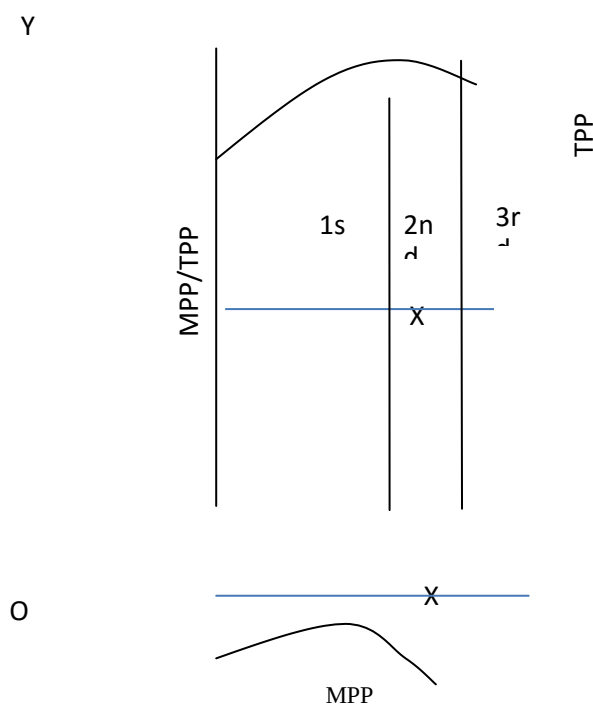
- MPP decreases / falls

This phase ends when MPP is zero & TPP is maximum

Phase III/ Stage III/ Negative returns to a factor

- TPP diminishes / decreases
- MPP becomes negative.

Diagram



Reasons for increasing returns to a factor

- Better utilization of fixed factor
- Increase in efficiency of variable factor.
- Optimum coordination of factors

Reasons for diminishing returns to a factor

- Indivisibility of factors.
- Imperfect factor substitutes.
- Poor coordination between fixed and variable factors

Relation between MPP and TPP

- As long as MPP increases, TPP increases at an increasing rate.
- When MPP decreases but remain positive, TPP increases at diminishing rate.
- When MPP is Zero, TPP is maximum.
- When MPP is negative, TPP starts decreasing

COST

Cost of production: Expenditure incurred on various inputs to produce goods and services.

Cost function: Functional relationship between cost and output. $C=f(q)$

Money cost: Money expenses incurred by a firm for producing a commodity or service.

Explicit cost: Actual payment made on hired factors of production. For example wages paid to the hired labourers, rent paid for hired accommodation, cost of raw material etc.

Implicit cost: It is imputed value self-supplied factors in production.

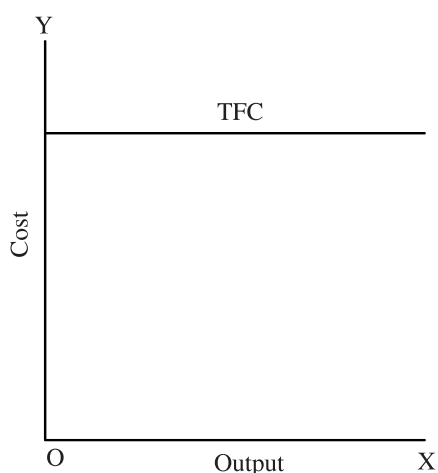
For example, interest on owner's capital, rent of own building, salary for the services of entrepreneur etc.

Total Fixed cost: are the cost which are incurred on the fixed factors of production.

These costs remain fixed whatever may be the scale of output. These costs are present even when the output is zero.

Numerical example of fixed cost

Output	0	1	2	3	4	5
TFCRs	20	20	20	20	20	20



TFC is also called as “overhead cost”, “supplementary cost”, and “unavoidable cost”.

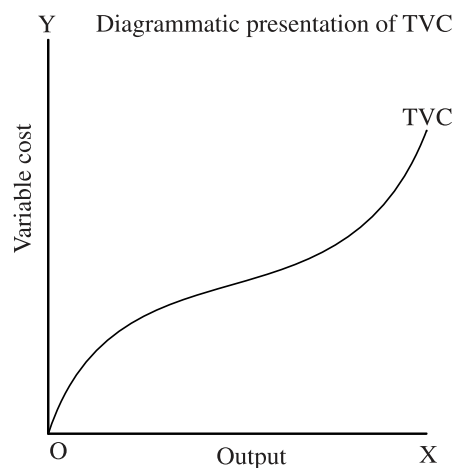
Total Variable Cost: are those costs which vary directly with the variation in the output. These costs are incurred on the variable factors of production.

These costs are also called “prime costs” or “Direct cost”

or “avoidable cost”. These costs are zero when output is zero.

Numerical example,

Output	0	1	2	3	4	5
TVC	0	10	16	25	38	55



Difference between TVC & TFC

Basis	TVC	TFC
Meaning	Vary with the level of output	Do not vary with the level of output
Time period	Can be changed in short period	Remain fixed in short period
Cost at zero output	Zero	Can never be zero
Factors	Cost incurred on all variable factors	Cost incurred on fixed factors of production
Shape	Upward sloping	Parallel to xaxis

Diagrammatic presentation of TVC

Total cost: is the total expenditure incurred on the factors and non-factor inputs in the production of goods and services.

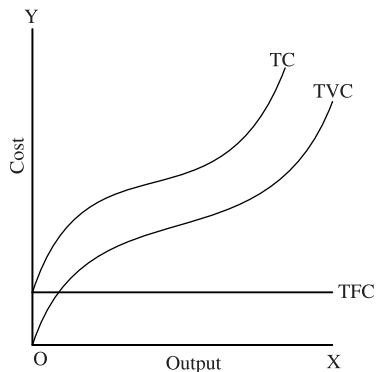
$$TC = TFC + TVC$$

It is obtained by summing TFC and TVC at various levels of output.

Relation between TC, TFC and TVC

1. TFC is horizontal to xaxis.
2. TC and TVC are S shaped (they rise initially at a decreasing rate, then at a constant rate & finally at an increasing rate) due to law of variable proportions.
3. At zero level of output TC is equal to TFC.

4. TC and TVC curves parallel to each other.



- $TC = TFC + TVC$
- $TFC = TC - TVC$
- $TVC = TC - TFC$

Average cost: are the “cost per unit” of output produced.

$$AC = AFC + AVC$$

Average cost is the
Per unit fixed cost of
Production.

$$AFC = \frac{TFC}{Q \text{ (Output)}}$$

AFC declines with every increase in output. It's a rectangular hyperbola. It goes very close to X axis but never touches the x axis as TFC can never be zero.

Average variable cost is the cost per unit of the variable cost of production.

$$AVC = TVC / \text{output.}$$

AVC falls with every increase in output initially. Once the optimum level of output is reached AVC starts rising.

Average total cost (ATC) or Average cost (AC): refers to the per unit total cost of production. $ATC = TC / \text{Output}$

Marginal cost: refers to the addition made to total cost when an additional unit of output is produced.

$$MC = TC_N - TC_{N-1}$$

Relationship between AC and MC

- Both AC & MC are derived from TC
- Both AC & MC are “U” shaped (due to Law of variable proportion)
- When AC is falling till MC lies below AC curve.
- When AC is rising MC lies above AC
- MC cuts AC at its minimum where $MC = AC$

Important formulae at a glance

1. $TFC = TC - TVC$ or $TFC = AFC \times \text{output}$ or $TFC = TC$ at 0 output.
2. $TVC = TC - TFC$ or $TVC = AVC \times \text{output}$ or $TVC = \sum MC$
3. $TC = TVC + TFC$ or $TC = AC \times \text{output}$
4. $MC_n = TC_n - TC_{n-1}$ or $MC_n = TVC_n - TVC_{n-1}$
5. $AFC = TFC / \text{Output}$ or $AFC = ATC - AVC$
6. $AVC = TVC / \text{Output}$ or $AVC = AC - AFC$
7. $AC = TC / \text{Output}$ or $AC = AVC + AFC$

Revenue:- Money received by a firm from the sale of a given output in the market.

Total Revenue: Total sale receipts or receipts from the sale of given output.

$$TR = \text{Quantity sold} \times \text{Price (or) output sold} \times \text{price}$$

Average Revenue: Revenue or Receipt received per unit of output sold.

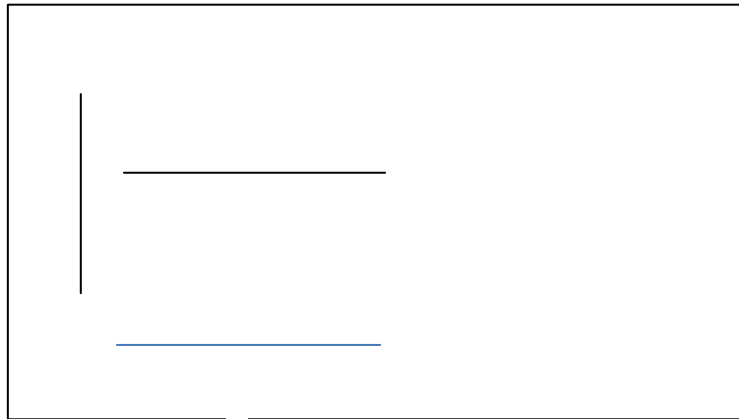
- o $AR = TR / \text{Output sold}$
- o AR and price are the same.
- o $TR = \text{Quantity sold} \times \text{price or output sold} \times \text{price}$
- o $AR = \frac{TR}{q} = \frac{Q \times p}{q}$
- o $AR = \text{price}$

Marginal Revenue: Additional revenue earned by the seller by selling an additional unit of output.

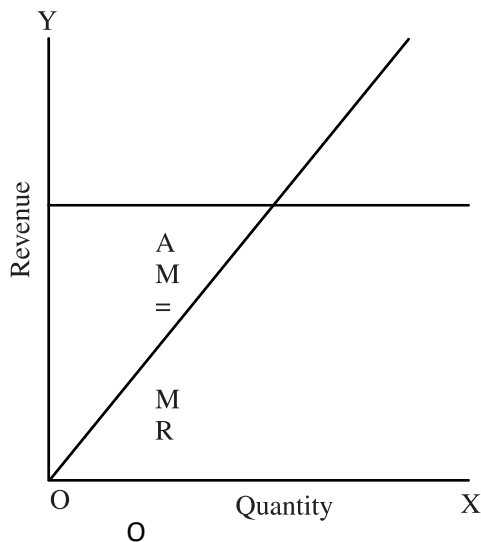
- $MR_n = TR_n - TR_{n-1}$
- $MR_n = \Delta TR_n / \Delta Q$
- $TR = \sum MR$

Relationship between AR and MR (when price remains constant or perfect competition)

Under perfect competition, the sellers are price takers. Single price prevails in the market. Since all the goods are homogeneous and are sold at the same price $AR = MR$. As a result AR and MR curve will be horizontal straight line parallel to OX axis. (When price is constant under perfect competition)

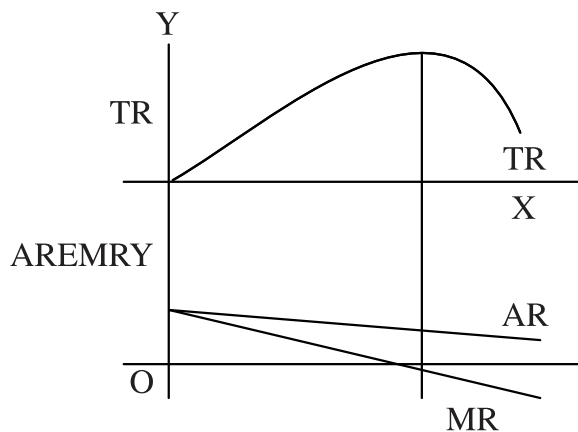


Relation between TR and MR (When price remains constant or in perfect competition) When there exists single price, the seller can sell any quantity at that price, the total revenue increases at a constant rate (MR is horizontal to X-axis)



Relationships between AR and MR under monopoly and monopolistic competition
(Price changes or under imperfect competition)

- AR and MR curve will be downward sloping in both the market forms.
- AR lies above MR.
- AR can never be negative.
- AR curve is less elastic in monopoly market form because of no substitutes.
- AR curve is more elastic in monopolistic market because of the presence of substitutes.



Relationship between TR and MR. (When price falls with the increase in sale of output)

- Under imperfect market AR will be downward sloping—which shows that more units can be sold only at a less price.
- MR falls with every fall in AR / price and lies below AR curve.
- TR increases as long as MR is positive.
- TR falls when MR is negative.
- TR will be maximum when MR is zero.

Break-even point: It is that point where $TR = TC$ or $AR = AC$. Firm will be earning normal profit.

Shut down point: A situation when a firm is able to cover only variable costs or $TR = TVC$

Formulae at a glance:

- $TR = \text{price or } AR \times \text{Output sold}$ or $TR = \sum MR$
- $AR (\text{price}) = TR \div \text{units sold}$
- $MR_n = MR_n - MR_{n-1}$

1. Can MR be negative or zero.

Ans:- Yes, MR can be zero or negative.

2. If all units are sold at same price how will it affect AR and MR?

Ans:- AR and MR will be equal at levels of output.

3. What is price line?

Ans:- Price line is the same as AR line and is horizontal to X-axis in perfect competition.

4. Can TR be a horizontal straight line?

Ans:- Yes, when MR is zero.

CONCEPT OF SUPPLY

1. **Individual supply** refers to quantity of a commodity that an individual firm is willing and able to offer for sale at each possible price during a given period of time.

2. **Market supply:** It refers to quantity of a commodity that all the firms are willing and able to offer for sale at each possible price during a given period of time.
3. **Supply Schedule** refers to a table which shows various quantity of a commodity that a producer is willing to sell at different prices during a given period of time.
4. **Determinants of supply** a) state of technology b) input prices c) Government taxation policy.
5. **Law of supply:** It states direct relationship between price and quantity supplied keeping other factors constant.
6. **Movement along the supply curve:** It occurs when quantity supplied changes due to change in its price, keeping other factors constant.
7. **Shift in supply curve:** It occurs when supply changes due to factors other than price.
8. **Reasons for shift in supply curves:** Change in price of other goods, change in price of factors of production, change in state of technology, change in taxation policy.
9. **Expansion in supply:** It occurs when quantity supplied rises due to increase in price keeping other factors constant.
10. **Contraction of supply:** It means fall in the quantity supplied due to fall in price keeping other factors constant.
11. **Increase in supply** refers to rise in the supply of a commodity due to favorable changes in other factors at the same price.
12. **Decrease in supply:** It refers to fall in the supply of a commodity due to unfavorable change in other factors at the same price.
13. **Price elasticity of supply:** The price elasticity of supply of a good measures the responsiveness of quantity supplied to changes in the price of a good.
14. **Price elasticity of supply** = $\frac{\% \text{change in qty supplied}}{\% \text{change in price}}$.
15. **Geometric method:**

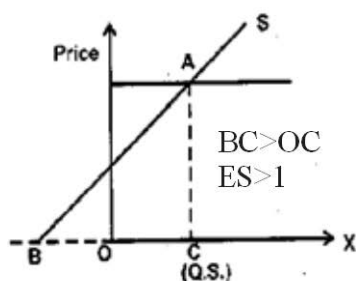


Fig.1: $BC/OC > 1$

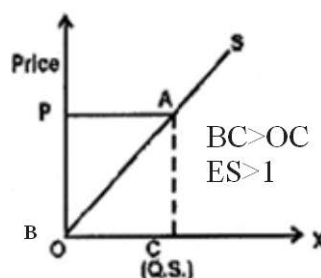


fig. 2: $BC/OC = 1$

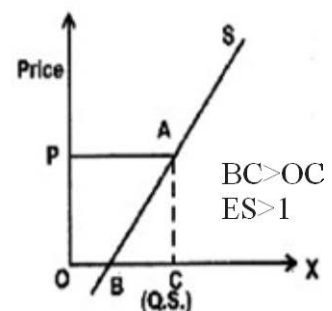


fig 3. $BC/OC < 1$

FREQUENTLY ASKED QUESTIONS– CBSE BOARD EXAMINATION

One Mark Questions (1M)

1. Define the law of supply.
2. Define market supply.
3. What do you understand by supply curve of a firm?
4. What do you mean by elasticity of supply?
5. Define supply schedule.
6. Define revenue of a firm? OR give meaning of revenue?
7. Define Marginal Revenue?
8. What is Average revenue?
9. When will the marginal revenue become negative?
10. What happens to total revenue when Marginal revenue is zero?
11. In which market the Average revenue is equal to marginal Revenue?

Three Marks Questions(3M)

1. Give reasons for the rightward shift in supply curve?
2. Give reasons for the leftward shift in supply curve?

Four Marks Questions (4M)

1. Briefly explain the geometric method of measuring price elasticity of supply?
2. Distinguish between change in supply and change in quantity supplied?
3. Explain the movement along the supply curve?
4. Complete the following table:

Units	1	2	3	4	5	6
Total Revenue	20	-	-	56	-	-
Average Revenue	-	18	-	-	-	-
Marginal Revenue	-	-	12	-	4	0

UNIT– IV: FORMS OF MARKET AND PRICE DETERMINATION

Market: Market is a geographical area where buyers and sellers come in to contact for the purchase and sale of goods and services.

Types of market :

- a) **Perfect competition:** refers to a market situation in which there are large number of buyers and sellers. Firms sell homogeneous products at a uniform price.
- b) **Monopoly market:** Monopoly is a market situation dominated by a single seller who has full control over the price.
- c) **Monopolistic competition:** It refers to a market situation in which there are many firms who sell closely related but differentiated products.
- d) **Oligopoly:** is a market structure in which there are few large sellers of a commodity and large number of buyers.

Features of perfect competition:

1. Very large number of buyer's and sellers.
2. Homogeneous product.
3. Free entry and exit of firms.
4. Perfect knowledge.
5. Firm is a price taker and industry is price taker.
6. Perfectly elastic demand curve ($AR=MR$)
7. Perfect mobility of factors of production.
8. Absence of transportation cost.
9. Absence of selling cost.

Features of monopoly:

1. Single seller of a commodity.
2. Absence of close substitute of the product.
3. Difficulty of entry of a new firm.
4. Negatively sloped demand curve ($AR>MR$)
5. Full control over price.
6. Price discrimination exists
7. Existence of abnormal profit.

Features of monopolistic competition

1. Large number of buyers and sellers but less than perfect competition.
2. Product differentiation.
3. Freedom of entry and exit.
4. Selling cost.

5. Lack of perfect knowledge.
6. Partial control over price.

Main features of Oligopoly.

1. Few dominant firms who are large in size
2. Mutual interdependence.
3. Barrier to entry.
4. Homogeneous or differentiated product.
5. Price rigidity.

1. Explain briefly why a firm under perfect competition is a price taker not a price maker?

Ans:-A firm under perfect competition is a price taker not a price maker because the price is determined by the market forces of demand and supply. This price is known as equilibrium price. All the firms in the industry have to sell their outputs at this equilibrium price. The reason is that, number of firms under perfect competition is so large. So no firm can influence the price by its supply. All firms produce homogeneous product.

Short Answer Questions:(3 / 4 Marks)

2. Explain any four characteristics of perfect competition market.

Ans:-

- i) Large number of buyers and sellers: The number of buyers and sellers are so large in this market that no firm can influence the price.
- ii) Homogeneous products: Products are uniform in nature. The products are perfect substitute of each other. No seller can charge a higher price for the product. Otherwise he will lose his customers.
- iii) Perfect knowledge: Buyers as well as sellers have complete knowledge about the product.
- iv) Free entry and exit of firm: Under perfect competition any firm can enter or exit in the market at any time. This ensures that the firms are neither earning abnormal profits nor incurring abnormal losses.

DETERMINATION OF PRICE UNDER PERFECT COMPETITION

Equilibrium: It means a position of rest, there is no tendency to change.

Market equilibrium: It means equality between quantity demanded and quantity supplied of a commodity in the market.

Equilibrium price: This is the price at which market demand of a commodity is exactly equal to the market supply.

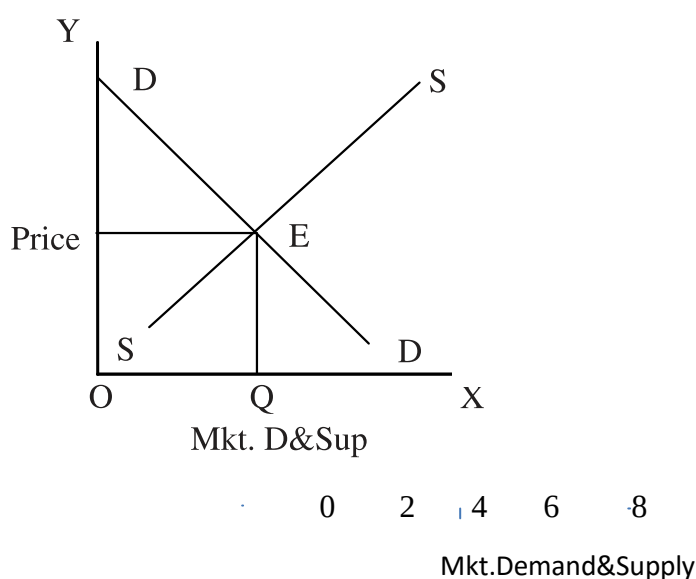
Market demand: It refers to the sum total demand for a commodity by all buyers in the market.

Market supply: It refers to supply of a commodity by all the firms in the market

3. Explain the process of price determination under perfect competition with the help of schedule and a diagram.

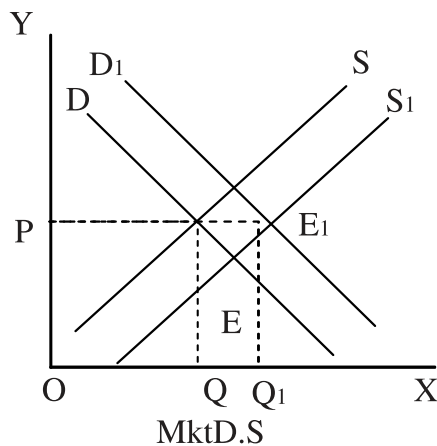
Ans:-Equilibrium price is that price which is determined by market forces of demand and supply. At this price both demand and supply are equal to each other. Diagrammatically it is determined at the point where demand curve and supply curve intersect each other. At this point price is known as equilibrium price and quantity is known as equilibrium quantity.

Price (Rs.)	M.D (Units)	M.S (Units)
1	10	2
2	8	4
3	6	6
4	4	8
5	2	10



4. When will equilibrium price not change even if demand and supply increase?

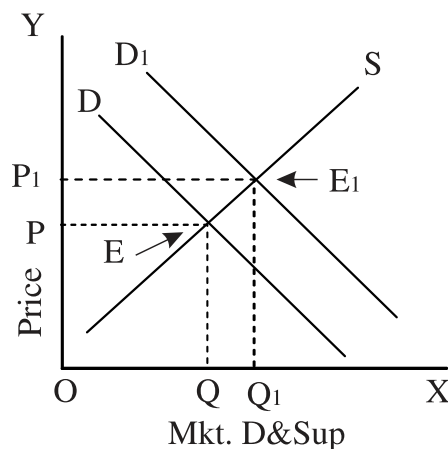
Ans:-When proportionate increase in demand is just equal to proportionate increase in supply. Equilibrium price will not change. It can be shown in the following diagrams.



In the above diagram increase in demand is just equal to increase in supply. Demand curve shift from D to D_1 and supply curve shift from S to S_1 which intersect at point E . Thus equilibrium price remain unchanged at OP though equilibrium quantity increased from OQ to OQ_1 .

1. How does increase in price of substitute goods affect the equilibrium price of a good? Explain with a diagram.

An increase in price of substitute goods (coke) will cause increase in demand for its related goods (Pepsi). The demand curve for Pepsi will shift to the right side. The supply curve of Pepsi remains the same. It will lead to an increase in equilibrium price of Pepsi and increase in quantity also.



Result: Price increases from OP to OP_1 . Quantity demand increases from OQ to OQ_1 .

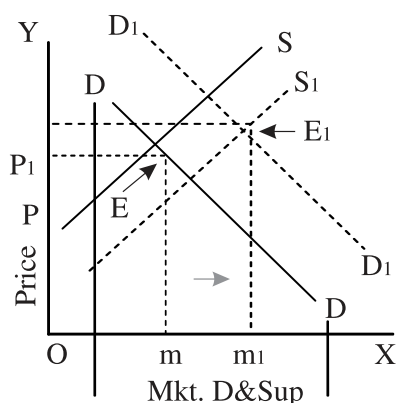
2. Explain the implication of free entry and free exit of a firm in perfect competitive market.

Ans:-If there is free entry and free exit of firms, then no firm can earn abnormal profit in the long run (firm earn zero abnormal profit). Each firm earns just normal profit.

LONG ANSWER QUESTIONS (6MARKS)

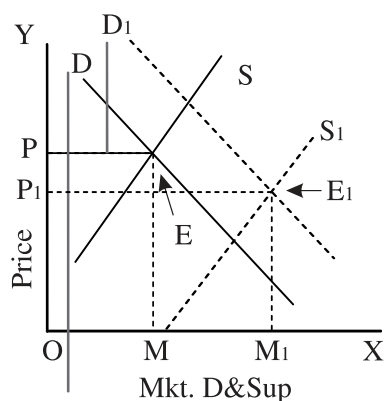
3. Equilibrium price may or may not change with shifts in both demand and supply curve.

Ans:- When demand increases more than supply price and quantity both will increase.



When increase in demand is more than increase in supply price increases from OP to OP_1 . Quantity increases from OM to OM_1 .

(ii) when demand increases less than supply, price will fall but quantity will rise.

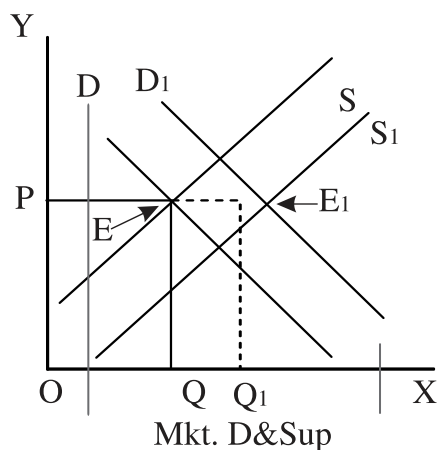


When supply increases more than

Demand price falls from OP to OP_1 and quantity demand increases from OM to OM_1 .

Decrease in price is less than increase in quantity.

iii) When demand and supply increase equally then equilibrium price remains the same.



When increase in demand is equal to increase in supply price remains unchanged at OP. Quantity exchanged increases from OQ to OQ₁.

4. With the help of demand and supply schedule explain the meaning of excess demand and its effects on price of a commodity.

Ans:-

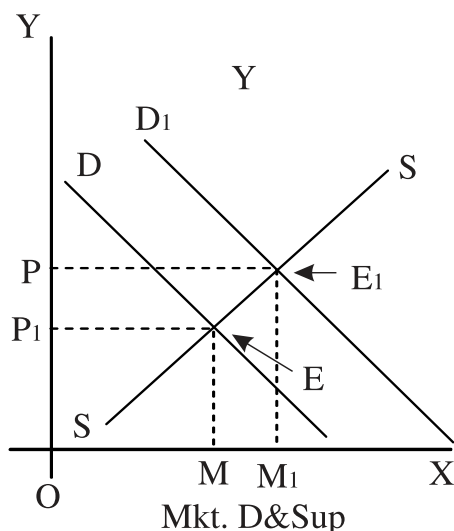
Demand and supply schedule

Price(Rs.)	Market demand(in kg.)	Market supply(in kg.)
10	10	50
9	20	40
8	30	30
7	40	20
6	50	10

The above schedule shows market demand and market supply of the commodity at different prices. At the price of 7 and 6 the market demand is greater than market supply. This is the situation of excess demand. There will be competition among the buyers resulting in a rise in price. Rise in price will result in fall in market demand and rise in market supply. This reduces the excess demand. These changes continue till the price rises to Rs.8 at which excess demand is zero. The excess demand results in a rise in price of the commodity.

5. Market for a good is in equilibrium. There is increase in demand for the goods. Explain the chain effect of this change.

Ans:-



- Increase in demand shift the demand curve from D to D₁ to right leading to excess demand EE_1 at the given price OP.
- There will be competition among buyers leading to rise in price.
- As price rises supply starts rising (along S) demand starts falling.
- These changes continue till $D=S$ at a new equilibrium at E_1
- The quantity rises from OM to OM₁ and price rises OP to OP₁

FREQUENTLY ASKED QUESTIONS– CBSE BOARD EXAMINATION

One Mark Questions (1M)

- 1) In which market form can a firm not influence the price of the product?
- 2) What is equilibrium price?
- 3) Under which market form a firm is a price taker?
- 4) Define market equilibrium.
- 5) Define Monopoly.
- 6) State one feature of Oligopoly.

Three Marks Questions (3M)

- 1) Why is the number of firms small in an Oligopoly Market? Explain.
- 2) Explain three features of Monopoly.
- 3) How is equilibrium price of a commodity affected by a decrease in demand?
- 4) Why is the demand curve more elastic under monopolistic competition than under monopoly? Explain.
- 5) Explain the feature 'differentiated product' of a market with monopolistic competition.
- 6) Explain the effect of 'large number of buyers and sellers' in a perfectly competitive firm.

Four Marks Questions (4 M)

- 1) Distinguish between Monopoly and Perfect Competition.
- 2) Draw the Average Revenue Curve of a firm under a) Monopoly and b) Perfect Competition. Explain the difference in these curves, if any.
- 3) Show with the help of a diagram the effects of an increase in demand for a commodity on its equilibrium price and quantity.
- 4) Explain with the help of a diagram the determination of price of a commodity under perfect competition.
- 5) Explain the concept of equilibrium price with the help of market demand and supply schedules.

Six Marks Questions (6 M)

1. Given the market equilibrium of a good. What are the effects of Simultaneous increase in both demand and supply of that good on its equilibrium price and quantity?
2. Distinguish between perfect competition and monopoly. Why is the demand curve facing a firm under perfect competition perfectly elastic?
3. Explain briefly the three features of perfect competition.
4. Explain the chain of effects on demand, supply and price of a commodity caused by a leftward shift of the demand curve. Use diagram.
5. Explain three features of Monopolistic Competition.

PART B-INTRODUCTORY MACRO ECONOMICS

Unit VI: NATIONAL INCOME AND RELATED AGGREGATES:

KEY CONCEPTS

Macro Economics: - Macroeconomics is the study of aggregate economic variables of an economy.

Consumption goods: - Are those which are bought by consumers as final or ultimate goods to satisfy their wants.

Eg: Durable goods car, television, radio etc.

Non-durable goods and services like fruit, oil, milk, vegetable etc.

Semi durable goods such as crockery etc.

Capital goods – capital goods are those final goods, which are used and help in the process of production of other goods and services. E.g.: plant, machinery etc.

Final goods: Are those goods, which are used either for final consumption or for investment. It includes final consumer goods and final production goods. They are not meant for resale. So, no value is added to these goods. Their value is included in the national income.

Intermediate goods intermediate goods are those goods, which are used either for resale or for further production. Example for intermediate good is- milk used by a tea shop for selling tea.

Stock: - Quantity of an economic variable which is measured at a particular point of time.

Stock has no time dimension. Stock is static concept.

Eg: wealth, water in a tank.

Flow: Flow is that quantity of an economic variable, which is measured during the period of time.

Flow has time dimension- like per hr, per day etc.

Flow is a dynamic concept.

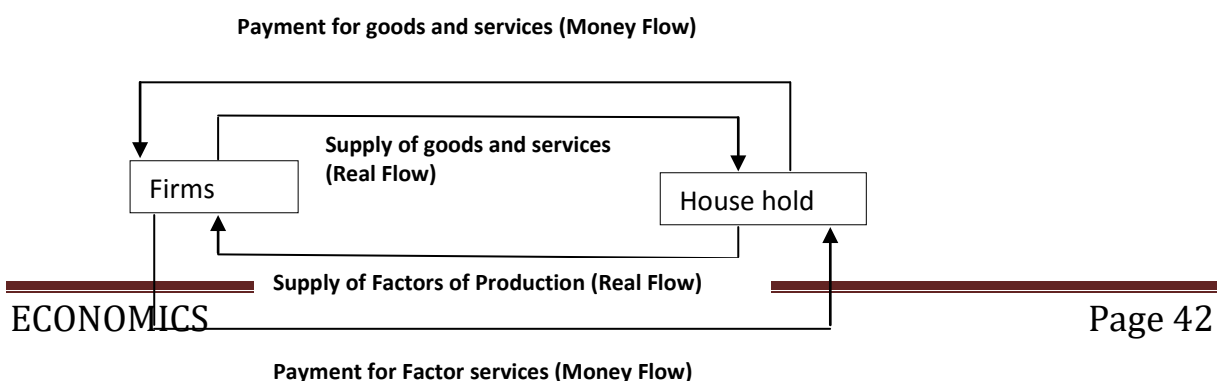
Eg: Investment, water in a stream.

Investment: Investment is the net addition made to the existing stock of capital.

Net Investment = Gross investment – depreciation.

Depreciation: - depreciation refers to fall in the value of fixed assets due to normal wear and tear, passage of time and expected obsolescence.

Circular flow in a two sector economy.



Producers (firms) and households are the constituents in a two sectors economy. Households give factors of production to firm and firms in turn supply goods and services to households.

Related aggregates

Gross Domestic product at market price

It is the money value of all final goods and services produced during an accounting year within the domestic territory of a country.

Gross National product at market price:

It is a money value of all final goods and services produced by a country during an accounting year including net factor income from abroad.

Net factor income from abroad:

Difference between the factor incomes earned by our residents from abroad and factor income earned by non-residents within our country.

Components of Net factor income from abroad

- Net compensation of employees
- Net income from property and entrepreneurship (other than retained earnings of resident companies of abroad)
- Net retained earnings of resident companies abroad

Formulas

- $NNP_{Mp} = GNP_{mp} - \text{depreciation}$
- $NDP_{Mp} = GDP_{mp} - \text{depreciation}$
- $NDP_{Fc} = NDP_{mp} - \text{Net indirect taxes (indirect tax – subsidies)}$
- $GDP_{Fc} = NDP_{fc} + \text{depreciation}$
- $NNP_{Fc} = GDP_{mp} - \text{depreciation} + \text{Net factor income from abroad} - \text{Net indirect taxes}$
- (NNP_{FC} is the sum total of factor income earned by normal residents of a country during the accounting year)
- $NNP_{fc} = NDP_{fc} + \text{Net factor income from abroad.}$

Concept of domestic (economic) territory

Domestic territory is a geographical territory administered by a government within which persons, goods and capital circulate freely. (Areas of operation generating domestic income, freedom of circulation of persons, goods and capital)

Scope identified as

*Political frontiers including territorial waters and air space.

*Embassies, consulates, military bases etc. located abroad but including those located within the political frontiers.

*Ships, aircrafts etc., operated by the residents between two or more countries.

*Fishing vessels, oil and natural gas rigs etc. operated by the residents in the international waters or other areas over which the country enjoys the exclusive rights or jurisdiction.

Resident (normal resident):-

Normal resident is a person or an institution who ordinarily resides in that country and whose centre of economic interest lies in that country.

(The Centre of economic interest implies :- (1) the resident lives or is located within the economic territory. (2) The resident carries out the basic economic activities of earnings, spending and accumulation from that location 3. His centre of interest lies in that country.

Relation between national product and Domestic product.

Domestic product concept is based on the production units located within domestic (economic) territory, operated both by residents and non-residents.

National product concept based on resident and includes their contribution to production both within and outside the economic territory.

National product = Domestic product + Residents contribution to production outside the economic territory (Factor income from abroad) - Non- resident contribution to production inside the economic territory (Factor income to abroad)

Methods of calculation of national income

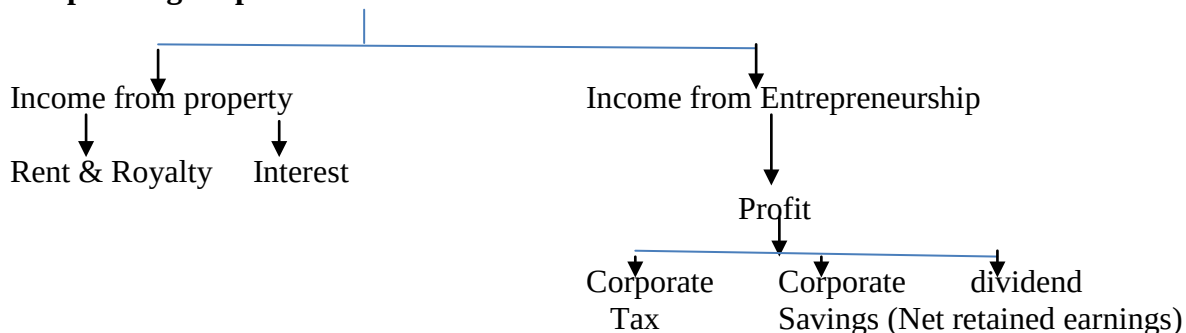
I - PRODUCT METHOD (Value added method):

- Sales + change in stock = value of output
- Change in stock = closing stock – opening stock
- Value of output - Intermediate consumption = Gross value added (GDP_{Mp})
- $NNP_{Fc} (N.I) = GDP_{Mp} (-)$ consumption of fixed capital (depreciation)
 (+) Net factor income from abroad
 (-) Net indirect tax.

Income method:

1. Compensation of employees.

2. Operating surplus.



3. Mixed income of self-employed.

- $NDP_{fc} = (1) + (2) + (3)$
- $NNP_{fc} = NDP_{fc} (+)$ Net factor income from abroad
- $GNP_{mp} = NDP_{fc} + \text{consumption of fixed capital} + \text{Net indirect tax}$
 (Indirect tax – subsidy)

Expenditure method:

1. Government final consumption expenditure.
2. Private final consumption expenditure.
3. Net Export.
4. Gross domestic capital formation.

$$\text{Gross Domestic fixed Capital formation} + \text{Change in stock (C,S - O.S)} \\ \text{GDPmp} = (1) + (2) + (3) + (4)$$

NNP_{fc} = GDPmp - consumption of fixed capital + NFIA- Net indirect taxes
 Note: If capital formation is given as Net domestic capital formation we arrive at NDPmp.
 (Capital formation = Investment)

CALCULATION OF NATIONAL DISPOSABLE INCOME, PRIVATE INCOME, PERSONAL INCOME AND PERSONAL DISPOSABLE INCOME

National income	Disposable income	Private Income includes factor income as well as Unearned income	Personal Income includes Transfer income +
<i>It is the income from all the sources (Earned Income as well as transfer payment from abroad) available to resident of a country for consumption expenditure or saving during a year.</i>	<i>Factor income from net domestic product accruing to private sector includes income from enterprises owned and controlled by the private individual.</i>	<i>PI is the income Actually received by the individuals and households from all sources in the form of factor income and current transfers.</i>	
NNP _{FC} + Net Indirect tax + Net current transfer from abroad = Net National disposable income. (Gross National Disposable Income includes depreciation)	<i>Excludes:-</i> 1. Property and entrepreneurial income of the Gov. departmental enterprise 2. Savings of the Non-departmental Enterprise. Factor Income from NDP Accruing to private sector = NDP _{FC} (-) income from properly entrepreneurship accruing to the govt departmental Enterprises (-) savings of Non departmental enterprises.	<i>Personal income = Private Income (-) corporation tax. (-) Corporate Savings OR Undistributed profits</i>	
	<u>Private Income Includes</u> * Factor income from net domestic product accruing to private sector. + Net factor income from abroad + Interest on National Debt + Current transfer from Govt. + Current transfer from rest of the world.	<u>Personal disposable income</u> Personal income (-) Direct Personal tax (-) Miscellaneous Receipts of the govt. Administrative department (fees and fines paid by house hold.)	

One Mark questions.

1. When will the domestic income be greater than the national income?

Ans: When the net factor income from abroad is negative.

2. What is national disposable income?

Ans. It is the income, which is available to the whole economy for spending or disposal

$$\text{NNP}_{\text{Mp}} + \text{net current transfers from abroad} = \text{NDI}$$

3. What must be added to domestic factor income to obtain national income?

Ans. Net factor income from abroad.

4. Explain the meaning of non-market activities

Ans. Non marketing activities refer to acquiring of many final goods and services not through regular market transactions. E.g. vegetable grown in the backyard of the house.

5. Define nominal GNP

Ans. GNP measured in terms of current market prices is called nominal GNP.

6. Define Real GNP.

Ans. GNP computed at constant prices (base year price) is called real GNP.

7. Meaning of real flow.

Ans. It refers to the flow of goods and services between different sectors of the economy. Eg. Flow of factor services from household to firm and flow of goods and services from firm to household.

8. Define money flow.

It refers to the flow of money between different sectors of the economy such as firm, household etc. Eg. Flow of factor income from firm to house hold and consumption expenditure from house hold to firm.

3- 4 Mark Questions

1. Distinguish between GDP_{Mp} and GNP_{FC}

Ans. The difference between both arise due to (1) Net factor income from abroad. and 2) Net indirect taxes. In GDP_{Mp} Net factor income from abroad is not included but it includes net indirect taxes.

$$GNP_{FC} = GDP_{Mp} + \text{net factor income from abroad} - \text{net indirect taxes}$$

2. Distinguish between personal income and private income

Ans. Personal income: -It is the sum total of earned income and transfer incomes received by persons from all sources within and outside the country.

Personal income = private income – corporate tax –corporate savings (undistributed profit)

Private income consists of factor income and transfer income received from all sources by private sectors within and outside the country.

3. Distinguish between nominal GNP and real GNP

Ans. Nominal GNP is measured at current prices. Since this aggregate measures the value of goods and services at current year prices, GNP will change when volume of product changes or price changes or when both changes.

Real GNP is computed at the constant prices. Under real GNP, value is expressed in terms of prices prevailing in the base year. This measure takes only quantity changes. Real GNP is the indicator of real income level in the economy.

4. Explain the main steps involved in measuring national income through product method

Ans.

Classify the producing units into industrial sectors like primary, secondary and tertiary sectors.

Estimate the net value added at the factor cost.

Estimate value of output by sales + change in stock

Estimate gross value added by value of output – intermediate consumption

Deduct depreciation and net indirect tax from gross value added at market price to arrive at net value added at factor cost = NDP_{FC}

Add net factor income received from abroad to NDP_{FC} to obtain NNP_{FC} which is national income

5. Explain the steps involved in calculation of national income through income method

Classify the producing enterprises into industrial sectors like primary, secondary and tertiary.

Estimate the following factor income paid out by the producing units in each sector i.e.

*Compensation of employees

*Operating surplus

*Mixed income of self employed

Take the sum of the factor income by all the industrial sectors to arrive at the NDP_{FC} (Which is called domestic income)

Add net factor income from abroad to the net domestic product at factor cost to arrive at the net national product at factor cost.

6. Explain the main steps involved in measuring national income through expenditure method.

Classify the economic units incurring final expenditure into distant groups like households, government, firms etc.

.Estimate the following expenditure on final products by all economic units

- Private final consumption expenditure
- Government final consumption expenditure
- Gross domestic capital formation
- Net export

(Sum total of above gives GDP_{MP})

Deduct depreciation, net indirect taxes to get NDP_{FC}

Add net factor income from abroad to NDP_{FC} to arrive at NNP_{FC} .

7. What are the precautions to be taken while calculating national income through product method (value added method)

Avoid double counting of production, take only value added by each production unit.

The output produced for self-consumption to be included

The sale & purchase of second hand goods should not be included.

Value of intermediate consumption should not be included

The value of services rendered in sales must be included.

8. Precautions to be taken while calculating national income through income method.

Income from owner occupied house to be included.

Wages & salaries in cash and kind both to be included.

Transfer income should not be included

Interest on loans taken for production only to be included. Interest on loan taken for consumption expenditure is non-factor income and so not included.

9. Precautions to be taken while calculations N.I under expenditure method.

Avoid double counting of expenditure by not including expenditure on intermediate product

Transfer expenditure not to be included

Expenditure on purchase of second hand goods not to be included.

10. Write down the limitations of using GDP as an index of welfare of a country

- 1) The national income figures give no indications of the population, skill and resources of the country. A country may be having high national income but it may be consumed

by the increasing population, so that the level of people's wellbeing or welfare standard of living remains low.

2) High N. I may be due to greater area of the country or due to the concentration of some resources in our particular country.

3) National income does not consider the level of prices of the country. People may be having income but may not be able to enjoy high standard of living due to high prices.

4) High N. I may be due to the large contribution made by a few industrialists

5) Level of unemployment is not taken into account.

6) National income does not care to reduce ecological degradation. Due to excess of economic activity which leads to ecological degradation reduces the welfare of the people.

Hence GNP and economic welfare are not positively related. Income in GNP does not bring about increase in economic welfare.

11. 'Machine purchased is always a final good' do you agree? Give reason for your answer

Whether machine is a final good or it depends on how it is being used (end use). If machine is bought by a household, then it is a final good. If machine is bought by a firm for its own use, then also it is a final good. If the machine is bought by a firm for resale then it is an intermediate good.

12. What is double counting? How can it be avoided?

Counting the value of commodities at every stage of production more than one time is called double counting. It can be avoided by

a) taking value added method in the calculation of the national income.

b) By taking the value of final commodity only while calculating N.I (Final Output Method)

6 Mark questions

1. State whether following is true or false. Give reason for your answer.

a) Capital formation is a flow

True, because it is measured over a period of time.

b) Bread is always a consumer good.

False, it depends upon the end use of bread. When it is purchased by a household it is a consumer good. When purchased by restaurant for making sandwich, it is an intermediate (producer) good.

c) Nominal GDP can never be less than real GDP

False. Nominal GDP can be less than the real GDP when the prices in the base year is more than the current year.

d) Gross domestic capital formation is always greater than gross fixed capital formation.

False, gross domestic capital formation can be less than gross fixed capital formation if change in stock is negative.

2. Why are exports included in the estimation of domestic product by the expenditure method? Can the gross domestic product be greater than the gross national product? Explain

Expenditure method estimates expenditure on domestic product i.e., expenditure on final goods and services produced within the economic territory of the country. It includes expenditure by residents and non-residents both. Exports though purchased by non-residents are produced within the economic territory and therefore a part of domestic product.

Domestic product can be greater than national product, if the factor income paid to the rest of the world is greater than the factor income received from the rest of the world i.e, when net factor income received from abroad is negative.

3. What are the items that are to be excluded and not excluded from GNP measurement? Give reason.

Ans.:- 1. Purely Financial Transaction:-Buying and selling of security: - Because it is merely transfer of paper from one person to another and it does not rather add to any production services.

Government transfer payments:- Because it is one sided payment made by the government to the household & firm without rendering any production services. E.g. Scholarship, old age Pension etc.

© Private transfer payments: - Because it is one sided payment made by the parents to their children without rendering any productive services. E.g. Pocket money given by the parent to their children.

2. Transfer of used (Second hand) goods: - Because it is already counted at the time of production and hence it will lead to double counting.

3. Non- market goods and services: - Because it is not bought and sold into the market and thus it is not included.

4. Illegal Activities: - it is not included because its production is unreported and unaccounted since, it is not valid as per law. E.g. Smuggling, Gambling etc.

5. The value of leisure: - Because leisure does not refer any productive services and

3. How will you treat the following while estimating domestic product of India?

a) Rent received by resident Indian from his property in Singapore.

No, it will not be included in domestic product as this income is earned outside the economic territory of India.

b) Salaries of Indians working in Japanese Embassy in India

It will not be included in domestic product of India as embassy of Japan is not a part of economic territory of India.

c) Profits earned by branch of American bank in India.

Yes, it is included as part of domestic product since the branch of American bank is located within the economic territory of India.

d) Salaries paid to Koreans working in the Indian embassy in Korea

Yes, it will be part of domestic product of India because the income is earned within the economic territory of India. Indian embassy in Korea is a part of economic territory of India.

4 How are the following treated in estimating national income from expenditure method? Give reason.

a) Purchase of new car by a household: purchase of car is included in the national income because it is final consumption expenditure, which is part of national income.

b) Purchase of raw material by purchase unit: purchase of raw material by purchase unit is not included in the national income because raw material is intermediate goods and intermediate goods and service are excluded from the national income. Purchase of raw material, if included in national income will result in double counting.

c) Expenditure by the government on scholarship to student is not included in the national income because it is a transfer payment and no productive service is rendered by the student in exchange.

5 Are the following item included in the estimating a country's national income? Give reason.

1) Free cloth given to workers: free cloth given to worker is a part of wages in kind i.e. compensation to employee such compensation to employee is paid for the productive services in the economy, it is included in the national income.

2) Commission paid to dealer in old car: commission paid to dealer in old car is included in the estimation of national income because it is the income of the dealer for his productive services to various parties.

3) Growing vegetable in a kitchen garden of the house: growing vegetable in a kitchen garden of the house amount to production, though not for sale for self-consumption. It is included in the national income because it adds to the production of goods.

Q. Mention the main components of gross Domestic Product (GDP) by income, expenditure & value added/production method.

Ans. GDP by expenditure method

private final consumption expenditure

consumer durable goods

consumer non-durable good

consumers service

investment expenditure

business fixed investment

inventory investment

residential construction investment

public investment

OR

Gross fixed capital formation

Gross domestic capital formation-----

Changes in stock (closing stock – opening stock)

govt. final consumption expenditure/governme

Net Export = export – import

GDP by income method

Compensation of employees.

Wages and salaries in cash and in kinds.

Pension payment to retired persons.

Employee's contribution to social security scheme

Operating Surplus:-

rent

interest

profit

Tax

Dividend

U.P/RE/CS

Mixed income of the self employed.

Net indirect tax (Indirect Tax – subsidy)

Depreciation / C.F.C

GDP by value added method/

Gross value added in primary sector

(Value of output in primary sector – I.C of P.S)

+

Gross value added in secondary sector

(Value of output in secondary sector – I.C of S.S)

+

Gross value added in tertiary sector

(Value of output in territory sector- I.C of T.S)

The Problem of Double Counting: - Double counting refers to a situation when value of a commodity

(output) counted more than once.

While estimating national income the value of the final goods must be counted only once. As the original goods goes into different processes and passes many stage and the result may be double, triple or manifold counting. For example, the value of wheat may be added in the national income at farmer's level. The same wheat is the sold to flour mill and the value of flour may also be included in the national income. Flour is sold to Bakery, Which prepares Breads, Biscuits, and Cakes whose value is also included. In the same way the value of Cotton, Thread and cloth may also be included in the national income. There are innumerable goods, which pass through different stages, and there is always a danger that the value of these goods may be counted at all states. Any way double counting must be avoided at all to have a true estimate of national income. In order to avoid the problem of double counting, value added method is used, which is obtained by deduction the intermediate consumption from the value of output.

Private Income, Personal Income and Personal Disposable Income

- 1 **Private Income:** - It is the income of the private sector obtained from any sources, productive or otherwise, and the retained income of the corporations.

Private Income = Income from domestic product accruing to private sector

+

Net Factor Income from Abroad

+

National Debt Interest

+

Current Transfers from Govt.

+

Current Transfers from Rest of the World

OR

GDP_{FC}/NDP_{fc} (-) Income from Property and entrepreneurship accruing to govt. sector

(-)

Saving of non- departmental public enterprises

(+)

Net Factor from Abroad

(+)

National Debt Interest

(+)

Current Transfer from govt.

(+)

Current Transfer from rest of the World

- **NOTE:** - (1) NFIA is ignored if National Income (NNP_{FC}) is given in the question instead of GDP_{FC}/NDP_{fc} or Domestic Factor Income.

(2) Personal Income: - It is the total of all current income received by households from all sources.

Personal Income = (i) Private Income

(-)

(ii) Corporation / corporate Tax

- (-)
 (iii) Corporate saving / saving of Private corporate sector /
 Undistributed profit / Retained earnings.

(3) Personal Disposable Income: -It is that part of personal income which the household can use.

PDI = (i) Personal Income

(-)

(ii) Direct taxes paid by households

(-)

(iii) Miscellaneous receipts of govt. i.e. fees & fines

Formula: - (i) Domestic to National = + NFIA

(ii) National to Domestic = - NFIA

(iii) Gross to Net = - Depreciation/CFC

(iv) Net to gross = + Depreciation/CFC

(v) MP to FC = - NIT

(vi) FC to MP = + NIT

CONCEPTS OF VALUE ADDED	CONCEPTS OF NATIONAL PRODUCT & NATIONAL INCOME
2 Value of output = sales + change in stock (closing stock – opening stock)	1.GNP mp = GDP mp + NFIA
3 Value added/gross value added at MP= value of output – intermediate cost	2.NNP mp = GNP mp – Depreciation
3.Net value added at MP= Gross value added at MP – Consumption fixed capital (Depreciation)	3.GDP mp = GDP mp – NFIA
4.Net value added at FC = Net value Added at MP – Net indirect Tax	4.NDP mp = GDP mp – Deprecation
5..Net Value added at FC = Total Factor Income	5.-GNP FC =GNP mp – Net Indirect Tax
	6.NNP FC (National Income) = GNPFC - Depreciation
	7.GDP FC = GDPmp – Net Indirect Tax
	8.NDP FC = GNP FC - Depreciation

Distinguish between constant price national Income and Current price national income (Real & Nominal N.I.).Which of them reflect the real growth of a country?

It is the sum total of market value at final goods & services produced by the normal resident of a country during a year at current market prices	It is the sum total of Markey value of final goods & services by the normal resident of a company during a year and estimated at base year price.
---	---

It can increase despite being increasing in the flow of goods and services in the economy due to increase in price	It will increase only when there is an increase in the flow of goods & services in the in real terms.
--	---

National Income at constant price reflects the real growth of an economy because it shows the real flow of goods & services in the economy.

Q.Explain how distribution of gross domestic product has its limitation as a measure of economic welfare.

A. If with increase in GDP inequality of income increase, i.e. poor becomes poorer while rich become richer. This may lead to decline in welfare even though GDP has increased.

FREQUENTLY ASKED CBSE BOARD QUESTIONS

- 1 Give two examples of macro economics (1)
- 2 Differentiate between micro and macroeconomics (3)
- 3 Distinguish between intermediate goods and final goods. (3)
- 4 Distinguish between domestic product and national product (3)
- 5 What do you understand by net factor income from abroad? Explain (3)
- 6 While estimating national income how will you treat the following? Give reasons for your answer (4)
 - Imputed rent of self occupied houses.
 - Interest received on debentures
 - Financial help received by flood victims
 - Capital gains
- 7 Distinguish between transfer payments and factor payments. Give an example of each.)

UNIT – VII: MONEY AND BANKING

MEANING OF MONEY: Money is anything which is generally accepted as medium of exchange, measure of value, store of value and as means of standard of deferred payment.

FUNCTIONS OF MONEY: Functions of money can be classified into Primary and Secondary

Primary/Basic functions:-

1. **Medium of Exchange:** - It can be used in making payments for all transactions of goods and services.
2. **Measure /Unit of value:** - It helps in measuring the value of goods and services. The value is usually called as price. After knowing the value of goods in single unit (price) exchanges become easy.

Secondary functions:-

3. **Standard of deferred payments:** Deferred payments referred to those payments which are to be made in near future.

Money acts as a standard of deferred payment due to the following reasons:

Value of money remains more or less constant compared to other commodities.

Money has the merit of general acceptability.

Money is more durable compare to other commodity.

4. Store of value: Money can be stored and does not lose value

Money acts as a store of value due to the following reasons:

It is easy and economical to store.

Money has the merit of general acceptability.

Value of money remains relatively constant

MONEY HAS OVERCOME THE DRAW BACKS OF BARTER SYSTEM:

1. Medium of Exchange: Money has removed the major difficulty of the double coincidence of wants.
2. Measure of value: Money has become measuring rod to measure the value of goods and services and is expressed in terms of price.
3. Store of value: It is very convenient, easy and economical to store the value and has got general acceptability which was lacking in the barter system.
4. Standard of deferred payments: Money has simplified the borrowing and lending of operations which were difficult under barter system. It also encourages capital formation.

MONEY SUPPLY: refers to total volume of money held by public at a particular point of time in an economy. $M1 = \text{currency held by public} + \text{Demand deposits} + \text{other deposits with Reserve Bank of India}$. $M2 = M1 + \text{saving deposits with post office saving bank}$ $M3 = M1 + \text{net time deposit with the bank}$

$M4 = M3 + \text{total deposits with post office saving bank excluding national saving certificate}$

MONEY CREATION/DEPOSIT CREATION/CREDIT CREATION BY COMMERCIAL BANK

Let us understand the process of credit creation with the following example.

Suppose there is an initial deposit of Rs. 1000 and L.R.R. is 20% i.e., the banks have to keep Rs. 200 and lend Rs. 800/-. All the transactions are routed through banks. The borrower withdraws his Rs. 800/- for making payments which are routed through banks in the form of deposits account.

The Bank receives Rs. 800/- as deposit and keeps 20% of Rs.800/- i.e., Rs.160/- and lends Rs.640/- . Again the borrower uses this for payment which flows back into the banks thereby increasing the flow of deposits.

	Deposits (in Rs.)	Loans (in Rs.)	Cash Reserve Ratio (20%)
Initial deposit	1000	800	200
First round	800	640	160
Second round	640	512	128
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
Total	5000	4000	1000

MONEY MULTIPLIER:

Money Multiplier = $1/\text{LRR}$. In the above example LRR is 20% i.e., 0.2, so money multiplier is equal to $1/0.2=5$.

Why only a fraction of deposits is kept as Cash Reserve?

All depositors do not withdraw the money at the same time.

There is constant flow of new deposits into the banks.

CENTRAL BANK

MEANING: An apex body that controls, operates, regulates and directs the entire banking and monetary structure of the country.

FUNCTIONS OF CENTRAL BANK:

Currency authority or bank of issue: Central bank is a sole authority to issue currency in the country. Central Bank is obliged to back the currency with assets of equal value (usually gold coins, gold bullions, foreign securities etc.,)

Advantages of sole authority of note issue:

Uniformity in note circulation

Better supervision and control

It is easy to control credit

Ensures public faith

Stabilization of internal and external value of currency

Banker to the Government: As a banker it carries out all banking business of the Government and maintains current account for keeping cash balances of the government.

Accepts receipts and makes payments for the government. It also gives loans and Advances to the government.

Banker's bank and supervisor: Acts as a banker to other banks in the country—

Custodian of cash reserves:- Commercial banks must keep a certain proportion of cash reserves with the central bank (CRR)

Lender of last resort: - When commercial banks fail to meet their financial requirements from other sources, they approach Central Bank which gives loans and advances.

Clearing house: - Since the Central Bank holds the cash reserves of commercial banks it is easier and more convenient to act as clearing house of commercial banks.

Controller of money supply and credit: - Central Bank or RBI plays an important role during the times of economic fluctuations. It influences the money supply through quantitative and qualitative instruments. Former refers to the volume of credit and the latter refers to regulate the direction of credit.

Custodian of foreign exchange reserves.

Another important function of Central Bank is the custodian of foreign exchange reserves. Central Bank acts as custodian of country's stock of gold and foreign exchange reserves. It helps in stabilizing the external value of money and maintaining favorable balance of payments in the economy.

QUANTITATIVE INSTRUMENTS:

1. **Bank Rate policy:** - It refers to the rate at which the central bank lends money to commercial banks as a lender of the last resort.
 - a. Central Bank increases the bank rate during inflation (excess demand) and reduces the same in times of deflation (deficient demand)
2. **Open Market Operations:** It refers to the buying and selling of securities by the Central Bank from/ to the public and commercial banks.
 - a. It sells government securities during inflation/excess demand and buys the securities during deflation/deficient demand.
3. **Legal Reserve Ratio:** R.B.I. can influence the credit creation power of commercial banks by making changes in CRR and SLR
 - a. *Cash Reserve Ratio (CRR):* It refers to the minimum percentage of net demand and time liabilities to be kept by commercial banks with central bank.
 - b. Reserve Bank increases CRR during inflation and decreases the same during deflation

- c. *Statutory Liquidity Ratio (SLR)*: It refers to minimum percentage of net demand and time liabilities which commercial banks required to maintain with themselves.
- d. SLR is increased during inflation or excess demand and decreased during deflation or deficient demand.

QUALITATIVE INSTRUMENTS:

Margin Requirements: It is the difference between the amount of loan and market value of the security offered by the borrower against the loan.

Margin requirements are increased during inflation and decreased during deflation.

Moral suasion: It is a combination of persuasion and pressure that Central Bank applies on other banks in order to get them act in a manner in line with its policy.

Selective credit controls: Central Bank gives direction to other banks to give or not to give credit for certain purposes to particular sectors.

SHORT AND LONG ANSWER QUESTIONS

1. Define Central Bank.
2. Give the meaning of money.
3. Discuss the functions of money.
4. Describe how money over comes the problems of barter system?
5. What are the measures of money supply?
6. What do you mean by High powered money?
7. Describe the process of money creation or credit creation by commercial banks.
8. Why only a fraction of deposits is kept as Cash Reserves?
9. Discuss the functions of Central Bank.
10. Bring out the role of Central Bank as the controller of money supply or credit
11. Explain the various qualitative and quantitative instruments used by the central bank in controlling the money supply during the times of a) excess demand/inflation b) deficient demand/deflation.

HOTS

1. **Calculate the value money multiplier and the total deposit created if initial deposit is of Rs. 500 crores and LRR is 10%.**

Ans: Money multiplier = $1/\text{LRR}$ which is equal to $1/0.1=10$

Initial deposit Rs. 500 crores

Total deposit = Initial deposit x money multiplier

$$= 500 \times 10 = 5000 \text{ crores.}$$

2. If total deposits created by commercial banks are Rs.12000, LRR is 25% calculate initial deposit.

Ans: Money multiplier = $1/\text{LRR} = 1/.25 = 4$

Initial deposit = Total deposit / money multiplier = $12000/4 = 3000$

3. Calculate LRR, if initial deposit of Rs. 200 cores lead to creation of total deposits of Rs. 1600 cores.

Ans: Money multiplier = Total deposits/Initial deposits = $1600/200=8$

Money multiplier = $1/\text{LRR} = 8=1/\text{LRR}$.

LRR = 1.25 or 12.5

FREQUENTLY ASKED CBSE BOARD QUESTIONS

One Mark Questions (1M)

1. Define money.
2. M1 =
3. What is meant by barter system?
4. Write two drawbacks of barter exchange.
5. List out two main functions of money.
6. Define commercial bank.
7. Give the meaning of central bank.
8. What do you mean by credit creation by commercial banks.
9. Define bank rate.
10. Define cash reserve ratio.
11. Give the meaning of statutory liquidity ratio.
12. What is meant by open market operations (OMO)?
13. Define money supply.
14. Write one difference between commercial bank and central bank.
15. Mention two important functions of central bank.

Three Marks Questions (3M)

1. Explain briefly any two main functions of money.
2. How does the central bank apply bank rate as a measure of credit control?
3. What are the components of M1?
4. State any THREE functions of central bank. Explain any one.
5. Explain the “lender of last resort” function of central bank.
6. What is money multiplier?
7. Explain briefly any three drawbacks of barter system
8. Explain the open market operations method of credit control used by a central bank.

Four Marks Questions (4 M)

1. Distinguish between commercial banks and central bank.
2. Explain how money solves the drawbacks of barter exchange.
3. What is money multiplier? How will you determine its value?
4. Briefly explain any TWO quantitative measures of credit control by the central bank.
5. Explain briefly the credit creation by commercial banks with the help of an example.

Unit VIII: Determination of Income and Employment

Key concepts

- ❖ Aggregate demand and its components.
- ❖ Propensity to consume and propensity to save
- ❖ Short run fixed price in product market equilibrium output, investment or output multiplier and the multiplier mechanism.
- ❖ Meaning of full employment and involuntary unemployment.
- ❖ Problems of excess demand and deficient demand.
- ❖ Measures to correct excess demand and deficient demand.
- ❖ Change in government spending.
- ❖ Availability of credit.
- ❖ **Autonomous consumption:** The consumption which does not depend upon income. (Or) The amount of consumption expenditure when income is zero. $C > 0$. Even if income is zero consumption cannot be zero. Consumption will take place from past savings for survival.
- ❖ **Autonomous Investments:** It is Investment which is made irrespective of level of income. It is generally run by the government sector. It is income inelastic. The volume of autonomous investment is same at all level of income.

Key points

- ❖ Determination of income, output and employment is the core of the subject matter of macroeconomics.
- ❖ AD and AS together determine the level of income, output and employment.
- ❖ Aggregate demand is the total demand of goods and service in the economy.
- ❖ **The main components of AD are-**
 1. House hold consumption expenditure.
 2. Investment expenditure.
 3. Government consumption expenditure
 4. Net export.
- ❖ **Household consumption expenditure** is the expenditure incurred by the household on the purchase of goods and services to satisfy their wants.
- ❖ **Investment expenditure** refers to the expenditure incurred by the private firms and government on the purchase of capital goods such as plant and equipment.
- ❖ **Government consumption** expenditure refers to the expenditure incurred by the government on the purchase of goods and services.
- ❖ **Net export** refers to the difference between export and import.
- ❖ **$AD = C + I + G + (x - m)$.**
- ❖ In a two sector economy $AD = C + I$.
- ❖ Aggregate supply is the sum total of consumption expenditure and saving.

$$AS = C + S$$

PROPENSITY TO CONSUME AND PROPENSITY TO SAVE.

- ❖ The relationship between consumption and income is called propensity to consume or consumption function.

$$C=f(Y).$$

- ❖ Consumption function may be represented by an equation.

$$C=a+b(Y)$$

C=consumption, a =consumption at zero level of income b=MPC (slope of the consumption curve) Y=income.

The consumption equation shows the level of consumption for various level of income.

- ❖ Propensity to consume is of two types
 - A) Average propensity to consume (APC)
 - B) Marginal propensity to consume (MPC).
- ❖ APC= ratio of total consumption to total income.
 $APC=C/Y.$
- ❖ $MPC=\Delta C/\Delta Y.$
- ❖ Propensity to save indicates the tendency of the households to save at a given level of income. It shows the relation between saving and income.
- ❖ Propensity to save is also of two types.
 - Average propensity to save (APC)
 - Marginal propensity to save.(MPC)
- ❖ Average propensity to save is the ratio of saving to income
 $APC=S/Y.$
- ❖ Marginal propensity to save is the ratio of change in saving to change in income
 $MPS=\Delta S/\Delta Y.$
- ❖ There is relationship between APC and APS.
 $APC+APS=1$
 $APC=1-APS.$
- ❖ There is relationship between MPC and MPS.
 $MPC+MPS=1$
 $1-MPC=MPS.$

Meaning of involuntary unemployment and full employment.

- ❖ Involuntary unemployment refers to a situation in which people are ready to work at prevailing wage rate, but do not find work.
- ❖ Full employment refers to a situation in which no one is unemployed i.e....there is no involuntary unemployment.
- ❖ According to Keynes full employment signifies a level of employment where increase in aggregate demand does not lead to an increase in the level of output and employment.
 Increase in demand beyond full employment causes prices to go up.

DETERMINATION OF INCOME AND EMPLOYMENT.

- ❖ The determination of income and employment in the Keynesian theory depends on the level of AD and AS.
- ❖ Equilibrium level of income and output is determined where,
 - 1) $AD=AS$ 2) Planned saving =planned investment.
- ❖ In a two sector economy $Ad=C+I$, $AS=Y$, $Y=C+I$.

- ❖ Suppose that $C=40+0.75Y$ (CONSUMPTION FUNCTION) and $I =Rs.60$ (investment function) then the equilibrium level of income is obtained as
 $Y=C+I$
 $Y=40+0.75Y=60$
 $Y-0.75Y=100$
 $0.25Y=100$
 $Y=10000/25$
 $Y=400$ crores.
- ❖ Investment multipliers and its working.
- ❖ Investment multiplier explains the relationship between increase in investment and the resultant increase in income.
- ❖ Investment multiplier is the ratio of change in income to change in investment.
Multiplier (k) $=\Delta y/\Delta I$.
- ❖ The value of multiplier depends on the value of marginal propensity to consume (MPC).
- ❖ There is direct relationship between k and MPC.
- ❖ Multiplier also depends on the marginal propensity to save
- ❖ There is inverse relationship between multiplier and MPS.

IMPORTANT FORMULAE.

- ❖ $AD=C+I$ (two sector economy).
- ❖ $APC=C/Y$.
- ❖ $APS=S/Y$.
- ❖ $APC+APS=1$
- ❖ $MPC=\Delta C/\Delta Y$
- ❖ $MPS=\Delta S/\Delta Y$
- ❖ $MPS+MPC=1$ AND $1-MPC=MPS$
- ❖ $K=\Delta Y/\Delta C$ or $K=1/MPS$ or $K=1/1-MPC$
- ❖ $C=\bar{c}+b(Y)$
- ❖ $S=-a+(1-b)Y$
 $\bar{c}$ = autonomous consumption
 $-a$ = negative saving
 $(1-b)=MPS$

1 MARK QUESTIONS

What is the relation between APC and APS?

Ans. $APC+APS=1$

What is the relation between MPC and MPS?

Ans. $MPS+MPC=1$.

If APC is 0.7 then how much will be APS?

Ans. $1-0.7=0.3$

If MPC =0.75, what will be MPS?

Ans. $MPC+MPS=1$
 $1-0.75=0.25$

1. State the important factor influencing the propensity to consume in an economy?

2. Ans. The level of income (Y) Influences the propensity to consume (c) of an economy.
 3. **What is meant by investment?**
 4. Ans. Investment means addition to the stock of capital good, in the nature of structures, equipment or inventory.
 5. **What is the investment demand function?**
 6. Ans. The relationship between investment demand and the rate of interest is called investment demand function.
 7. **What is equilibrium income?**
 8. Ans. The equilibrium income is the level of income where $AD=AS$ i.e.... $AD=AS$ and planned saving equals planned investment.
 9. **Give the formula of investment multiplier in terms of MPC.**
 10. Ans. $K=1/1-MPC$
 11. **What can be the minimum value of investment multiplier?**
 12. Ans. One.
 13. **What is the maximum value of investment multiplier?**
 14. Ans. Infinity.
 15. **Give the equation of propensity to consume.**
 16. Ans. $C=\bar{a}+by$.
 17. **Write down the equation of saving function?**
- Ans. $S= -a+ (1-b) y$.

3 AND 4 MARKS QUESTIONS.

1. Explain the components of equation $c=\bar{a} + by$.

Ans. 'a' is called intercept and it represents the amount of consumption when there is a zero level of income i.e. autonomous consumption. The consumption is positive at zero level of income. The coefficient 'b' measures the slope of consumption. The slope gives the increase in consumption per unit increase in income. This is called as MPC. Consumption changes by 'b' for every one rupee change in income. Consumption changes in the same direction as income.

2. Derive the saving function from the consumption function $c=\bar{a}+by$.

Ans. Saving is equal to income minus consumption ($y=c+s$). The saving function relates to the level of savings to the level of income. It is derived from the consumption which is as follows:

$$Y=C+S$$

$$S=Y-C$$

$$\text{since } C=\bar{a}+bY.$$

therefore,

$$S=Y-(\bar{a}+bY)$$

$$S= -\bar{a}+(1-b)Y \quad (\text{SAVING FUNCTION}).$$

3. Explain the components of $S = -a + (1-b)Y$.

Ans. The saving function is $S = -a + (1-b)Y$. $-a$ represents the intercept term and it represents the amount of savings done when there is zero level of income. The saving is negative at zero level of income because at zero level of income consumption (a) is positive. Negative saving is nothing but dissaving, this means that at zero level of income there is dissaving of amount $-a$.

The coefficient $(1-b)$ measures the slope of the saving function. The slope of the saving function gives the increase in savings per unit increase in the income. This is known as MPS. Since ' b ', that is MPC is less than one, it follows that $(1-b)$ i.e. MPS is positive. Saving is an increasing function of income.

4. Can the value of APS be negative? If yes then when?

Ans. The value of APS can be negative when the value of consumption exceeds the value of income. At low level of income saving is negative.

e.g.: if income is Rs 1000 and consumption expenditure is Rs 1200

$$Y = C + S \quad S = Y - C$$

$$1000 - 1200 = -200$$

$$APS = -200/1000 = -0.2 \quad APS = S/Y.$$

$$APS = -0.2.$$

5. Can the average propensity to consume be greater than one? Give the reason for your answer.

Ans. APC can be greater than one when the consumption exceeds the income. At that level APS will be negative. When the APS is negative APC will be greater than one.

e.g.: if the income is 1000 and the consumption is 1200, $APC = 1200/1000 = 1.20$.

6. When can the APC be equal to one? Give reason for your answer.

Ans. APC can be equal to one when $APS = 0$, i.e. when consumption = income.

E.g: $y = 1000, c = 1000$.

$$APC = C/Y \quad 1000/1000 = 1$$

$$APC = 1$$

$$APC + APS = 1$$

$$1 - APC = APS$$

$$1 - 1 = 0$$

7. Explain the meaning of investment multiplier? What can be its minimum value and why?

Ans. Defined as the ratio of change in the income to the change in the investment.

$$K = \Delta Y / \Delta I.$$

The value of the multiplier is determined by the MPC. It is directly related to MPC.

$$K = 1/1 - mpc = 1/1 - 0 = 1$$

$$K = 1$$

Minimum value of K is when minimum value of $MPC = 0$, the minimum value of K will be unit one.

8. Explain the working of a multiplier with an example.

Ans. Multiplier tells us what will be the final change in the income, as a result of change in investment. Change in investment results in the change in income.

Symbolically:

$$\Delta I \rightarrow \Delta Y \rightarrow \Delta C \rightarrow \Delta Y$$

The working of a multiplier can be explained with the help of the following table which is based on the consumption that is, $\Delta I=1000$ and $MPC=4/5$.
PROCESS OF INCOME GENERATION.

ROUNDS	ΔI	ΔY	ΔC
1.	1000	1000	$4/5 \times 1000 = 800$
2.	-	800	$4/5 \times 800 = 640$
3.	-	640	$4/5 \times 640 = 512$
4.	-	512	$4/5 \times 512 = 409.6$
$\downarrow \infty$	$\downarrow \infty$	$\downarrow \infty$	$\downarrow \infty$
TOTAL	5000	4000	
L			

As per the table the initial increase in the investment of Rs 1000 there is a total increase in the income by Rs 5000 given $MPC=4/5$. Out of this total increase in the income Rs 4000 will be consumed and Rs 5000 be saved.

The sum of total increase in income is also derived as:

$$\Delta y = 1000 + 800 + 640 + 512 + \dots \dots \dots \text{infinity.}$$

$$1000 + 4/5 \times 1000 + (4/5)^2 \times 1000 + (4/5)^3 \times 1000 + \dots \dots \dots \text{infinity}$$

$$= 1000 [1 + 4/5 + (4/5)^2 + (4/5)^3 + \dots \dots \dots \text{infinity}]$$

$$= 1000 [1 / 1 - 4/5] = 1000 \times 5/1 = \text{Rs. 5000 cores.}$$

9. Differentiate between ex ante and ex post investment.

Ans. Ex ante is the planned investment which the planner intends to invest at different level of income and employment in the economy.

Ex post investment may differ from ex ante investment when the actual sales differ from the planned sales and the firms thus face unplanned addition or reduction of inventories.

6 MARKS QUESTIONS WITH ANSWERS

1. Draw a hypothetical propensity to consume curve from it draw the propensity curve to save curve

Ans. $APC = C/Y$ $APS = S/Y$

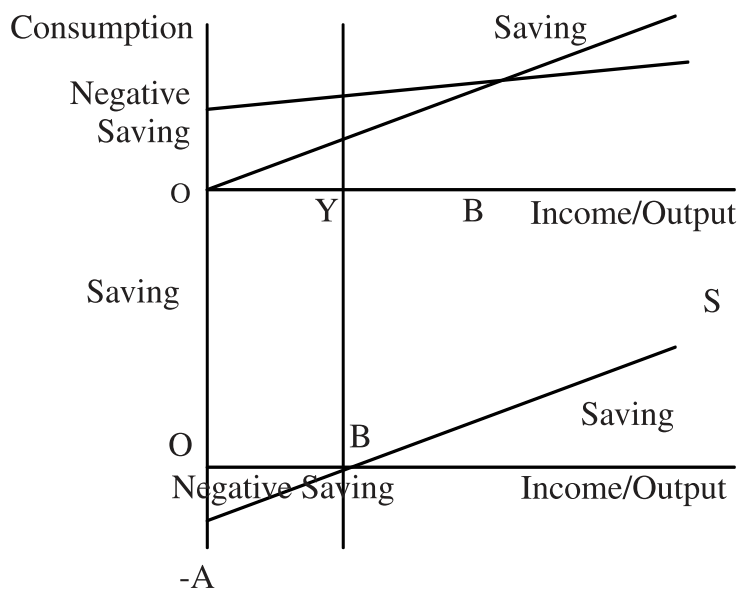
Propensity to save curve

Is drawn from propensity to consume curve

When $Y = C$ $APC = 1$

Till that point APS is negative at point 's'

When $y > c$ there is a positive saving



2. Explain the determination of income and employment with AD and AS. (Give schedule)

$$AD = C + I$$

$$AS = C + S \quad AS = Y \text{ (refers to country's national income)}$$

The equilibrium level of income is determined at a point when $AD = AS$.

Equilibrium can be achieved at full employment and even at under employment situation.

It may not be always at full employment condition in an economy.

y	c	I	AD=C+I	AS=Y
0	50	100	150	0
100	100	100	200	100
200	150	100	250	200
300	200	100	300	300
400	250	100	350	400
500	300	100	400	500

The above schedule shows equilibrium level of income is 300 where $AD = AS$ $300 = 300$.

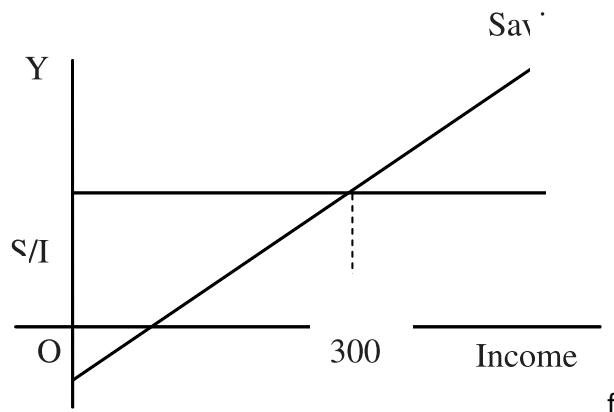
3. Explain the equilibrium level of income, employment and output with saving and investment approach. What happens when savings exceeds investment?

Ans. Equilibrium is achieved when planned saving is equal to planned investment that is $S = I$.

This can be seen with the help of schedule and a diagram.

INCOME	CONSUMPTION	SAVING	INVESTMENT
Y	C	(S=Y-C)	I
0	50	-50	100
100	100	0	100
200	150	50	100

300	200	100	100	S=I
400	250	150	100	



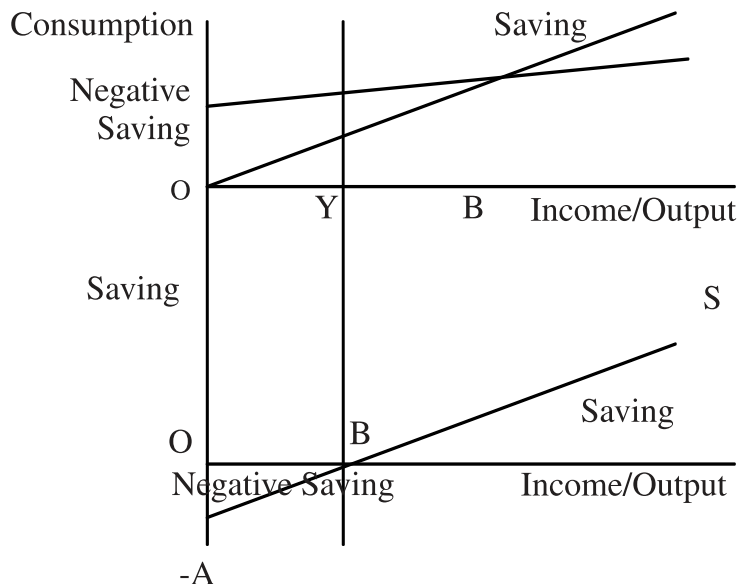
The equilibrium level of income is 300 core and at this point $S(100) = i(100)$ the equilibrium may necessarily not be at the full employment level.

When saving exceeds planned investment means people are consuming less and spending more as a result AD is less than AS.

This will lead to accumulation of more goods with producer. This will make the businessmen to reduce production consequently, output, income & employment will be reduced till the equilibrium level of income.

4. Draw a straight line consumption curve. From it derive a saving curve explaining the process. Show on the diagram.

- The level of income at which average propensity to consume equal to one.
- A level of income at which average propensity to save is negative.



Ac is the consumption curve and OA is the consumption expenditure at zero level of income. Income minus consumption is saving.

When income is 0, the economy's consumption level is OA. The corresponding level of saving is -OA.

So -a is the starting point of saving curve. At OB level of income consumption is equal to income, so saving are zero. so B is another point on saving curve .

Join A and B and extend this line to S, AS is the saving curve.

The level of income at which APC is equal to one is OB.

A level of income at which APS is negative OY.

UNIT IX: GOVERNMENT BUDGET AND THE ECONOMY

KEY CONCEPTS:

- Meaning of the Budget
- Objectives of the Budget
- Components of the Budget
- Budget Receipts
- Budget Expenditure
- Balanced, Surplus and Deficit Budgets
- Types of Deficits
 - (i) Revenue deficit
 - (ii) Fiscal deficit
 - (iii) Primary deficit

1 MARK QUESTIONS AND ANSWERS

1. Define a Budget.

Ans: It is an annual statement of the estimated Receipts and Expenditures of the Government over the fiscal year which runs from April -I to March 31.

2. Name the two broad divisions of the Budget.

Ans: i) Revenue Budget
a. Capital Budget

3. What are the two Budget Receipts?

Ans: i) Revenue Receipts

Capital Receipts

4. Name the two types of Revenue Receipts.

Ans: i) Tax Revenue
Non-tax Revenue

5. What are the two types of taxes?

Ans: a) Direct Taxes: i) Income Tax, ii) Interest Tax, iii) Wealth Tax
b) Indirect Taxes: i) Customs duties, ii) Excise duties, iii) Sales Tax

6. What are the main items of Capital Receipts?

Ans: a) Market Loans (loans raised by the government from the public)
Borrowings by the Government
Loans received from foreign governments and International financial Institutions.

7. What are the four different concepts of Budget Deficits?

Ans: a) Budget Deficit
a. Revenue Deficit
b. Primary Deficit and
c. Fiscal Deficit

3 AND 4 MARK QUESTIONS AND ANSWERS

1. Explain the objectives of the Government Budget.

Ans: These below are the main objectives of the Government Budget.

Activities to secure reallocation of resources: - The Government has to reallocate resources with social and economic considerations.

Redistributive Activities: - The Government redistributes income and wealth to reduce inequalities.

Stabilizing Activities: - The Government tries to prevent business fluctuations and maintain economic stability.

Management of Public Enterprises: - Government undertakes commercial activities that are of the nature of natural Monopolies, heavy manufacturing etc., through its public enterprises.

2. What are the components of the Budget?

Ans: These below are the main components of the Government Budget. They are---

Budget Receipts

Budget Expenditure

Budget receipts may be classified as:

Revenue Receipts and

Capital Receipts

Revenue Receipts may be classified as:

Tax Revenue and

Non-tax Revenue

Budget Expenditure may be classified as -----

Revenue Expenditure and Capital Expenditure

3. Define Direct Taxes and Indirect taxes and give two examples each.

Direct Tax: - These are those taxes levied immediately on the property and Income of persons, and those that are paid directly by the consumers to the state.

a. *Examples:* Income Tax, Wealth Tax, Corporation Tax etc.

Indirect Taxes: These are those taxes that affect the income and property of persons through their consumption expenditure. Indirect taxes are those taxes levied on one person but paid by another person.

b. *Examples:* Customs duties, excise duties, sales tax, service tax etc.

4. What are the Non-Tax Revenue receipts?

Ans: These below are the Non-tax revenue receipts:

Commercial Revenue: Examples-Payments for postage, toll, interest on funds borrowed from government credit corporations, electricity, Railway services.

Interest and dividends

Administrative revenue: Examples: Fees, fines, penalties etc.,

5. What are the three major ways of Public Expenditure?

Ans: These below are the three ways of Public Expenditure----

Revenue Expenditure and Capital Expenditure

Plan Expenditure and Non-Plan Expenditure

Development and Non-developmental Expenditure.

6. What do you mean by Revenue Expenditure and Capital Expenditure?

Ans: i) Revenue Expenditure:- It is the expenditure incurred for the normal running of government departments and provision of various services like interest charges on debt, subsidies etc.,

ii) Capital Expenditure:- It consists mainly of expenditure on acquisition of assets like land, building, machinery, equipment etc., and loans and advances granted by the Central Government to States & Union Territories.

7. Explain the four different concepts of Budget deficit.

Ans: These are the four different concepts of Budget Deficit.

Budget Deficit:- It is the difference between the total expenditure, current revenue and net internal and external capital receipts of the government.

Formulae: $B.D = B.E - B.R$ (B.D= Budget Deficit, B.E. Budget Expenditure B.R= Budget Revenue)

Fiscal Deficit:- It is the difference between the total expenditure of the government, the revenue receipts PLUS those capital receipts which finally accrue to the government.

Formulae: $F.D = B.E - B.R$ (B.E > B.R. other than borrowings) F.D=Fiscal Deficit, B.E= Budget Expenditure, B.R. = Budget Receipts.

Revenue Deficit: - It is the excess of governments revenue expenditures over revenue receipts.

Formulae: $R.D = R.E - R.R$, When $R.E > R.R$, R.D= Revenue Deficit, R.E= Revenue Expenditure, R.R. = Revenue Receipts.

Primary Deficit: - It is the fiscal deficit MINUS Interest payments.

Formulae: $P.D = F.D - I.P$, P.D= Primary Deficit, F.D= Fiscal Deficit, I.P= Interest Payment.

FREQUENTLY ASKED CBSE BOARD QUESTIONS

1. Define full employment? (1)
2. What do you mean by Aggregate Demand? (1)
3. Write any two components of aggregate demand? (1)
4. Define Aggregate Supply? (1)
5. When APC is 0.6, what is the value of APS? (1)
6. If the rate of MPC is 0.75 find the value of multiplier? (1)
7. Define investment multiplier? (1)
8. What are the conditions for equilibrium level of income and employment? (1)
9. What is meant by excess demand? (1)
10. Define inflationary gap. (1)
11. Define deficient demand? (1)
12. Define underemployment equilibrium? (3)
13. What are the monetary measures to correct excess demand? (3)
14. State the fiscal measures to correct excess demand? (3)
15. Explain any two monetary and fiscal measures to correct deficient demand? (4)
16. Define investment multiplier. What is the relationship between MPC and multiplier? (4)
17. State the components of AD. Explain any one. (4)
18. Explain investment multiplier with the help of an example. (4)
19. Derive saving function from consumption function. (4)
20. State the Keynesian psychological law of consumption function. (4)

UNIT X: BALANCE OF PAYMENTS AND FOREIGN EXCHANGE RATE

Foreign Exchange refers to all currencies other than the domestic currency of a given country.

Foreign exchange rate is the rate at which currency of one country can be exchanged for currency of another country.

Foreign Exchange Market: The Foreign Exchange market is the market where the national currencies are traded for one another.

Functions of Foreign Exchange Market:

Transfer function: It transfers the purchasing power between countries.

Credit function: It provides credit channels for foreign trade

Hedging function: It protects against foreign exchange risks.

FIXED EXCHANGE RATE SYSTEM: Fixed exchange rate is the rate which is officially fixed by the government, monetary authority and not determined by market forces.

FLEXIBLE EXCHANGE RATE: Flexible exchange rate is the rate which is determined by forces of supply and demand in the foreign exchange market.

DEMAND FOR AND SUPPLY OF FOREIGN EXCHANGE

Demand for foreign exchange:

1. To purchase goods and services from other countries
2. To send gifts abroad
3. To purchase financial assets (shares and bonds)

4. To speculate on the value of foreign currencies
5. To undertake foreign tours
6. To invest directly in shops, factories, buildings
7. To make payments of international trade.

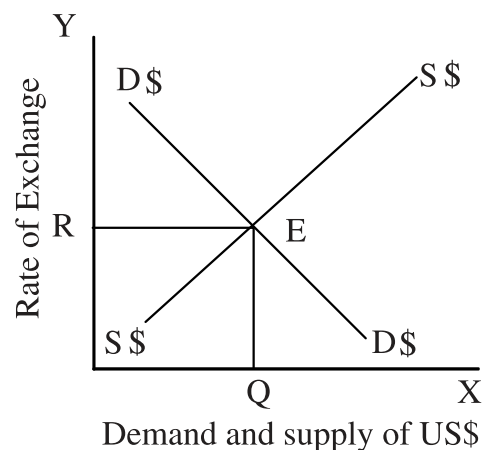
Supply of foreign exchange:

Foreign currencies flow into the domestic economy due to the following reason.

1. When foreigners purchase home countries goods and services through exports
2. When foreigners invest in bonds and equity shares of the home country.
3. Foreign currencies flow into the economy due to currency dealers and speculators.
4. When foreign tourists come to India
5. When Indian workers working abroad send their saving to families in India.

EQUILIBRIUM IN THE FOREIGN EXCHANGE MARKET

The equilibrium exchange rate is determined at a point where demand for and supply of foreign exchange are equal. Graphically interaction of demand and supply curve determines the equilibrium exchange rate of foreign currency.



Managed Floating: This is the combination of fixed and flexible exchange rate. Under this, country manipulates the exchange rate to adjust the deficit in the B.O.P by following certain guidelines issued by I.M.F.

Dirty floating: If the countries manipulate the exchange rate without following the guidelines issued by the I.M.F is called as dirty floating.

BALANCE OF PAYMENTS: MEANING AND COMPONENTS

Meaning: The balance of payments of a country is a systematic record of all economic transactions between residents of a country and residents of foreign countries during a given period of time.

BALANCE OF TRADE AND BALANCE OF PAYMENTS

Balance of trade: Balance of trade is the difference between the money value of exports and imports of material goods (visible item)

Balance of payments: Balance of payments is a systematic record of all economic transactions between residents of a country and the residents of foreign countries during a given period of time. It includes both visible and invisible items. Hence the balance of

payments represents a better picture of a country's economic transactions with the rest of the world than the balance of trade.

STRUCTURE OF BALANCE OF PAYMENT ACCOUNTING

A balance of payments statement is a summary of a Nation's total economic transaction undertaken on international account. There are two types of account.

1. **Current Account:** It records the following 03 items.

a) Visible items of trade: The balance of exports and imports of goods is called the balance of visible trade.

b) Invisible trade: The balance of exports and imports of services is called the balance of invisible trade E.g. Shipping insurance etc.

c) Unilateral transfers: Unilateral transfers are receipts which resident of a country receive (or) payments that the residents of a country make without getting anything in return e.g. gifts.

The net value of balances of visible trade and of invisible trade and of unilateral transfers is the balance on current account.

2. **CAPITAL ACCOUNT:** It records all international transactions that involve a resident of the domestic country changing his assets with a foreign resident or his liabilities to a foreign resident.

VARIOUS FORMS OF CAPITAL ACCOUNT TRANSACTIONS

1. Private transactions: These are transactions that are affecting assets (or) liabilities by individuals.

2. Official transactions: Transactions affecting assets and liabilities by the government and its agencies.

3. Direct Investment: It is the act of purchasing an asset and at the same time acquiring and control of it.

4. Portfolio investment: It is the acquisition of assets that does not give the particular control over the asset.

The net value of balances of direct and portfolio investment is called the balance on capital account.

OTHER ITEMS IN THE BALANCE OF PAYMENT

They are included since the full balance of payments account must balance. These items are as follows.

Errors and Omissions: They may arise due to the presence of sampling and due to his honesty.

Official reserve transactions: All transactions except those in this category may be termed as autonomous transactions. They are so called because they were entered into with some independent motive. Balance of payments always balance.

AUTONOMOUS AND ACCOMMODATING ITEMS

Autonomous items: Autonomous items in the B.O.P refer to international economic transactions that take place due to some economic motive such as profit maximization. These items are often called above the line items in the B.O.P.

The balance of payments is in a deficit if the autonomous receipts are less than autonomous payments. The monetary authorities may finance a deficit by depleting their reserves of foreign currencies, or by borrowing from I.M.F.

Accommodating items: Accommodating items in the B.O.P. refer to transactions that occur because of other activity with the B.O.P such as government financing. Accommodating items are also referred to as below the line of items.

DISEQUILIBRIUM THE BALANCE OF PAYMENTS

There are a number of factors that cause disequilibrium in the balance of payments showing either a surplus or deficit. These causes are categorized into 3 factors.

I **Economic factors:** Large scale development expenditure that may cause large imports.

Cyclical fluctuations in general business activities such as recession or depression.

High domestic prices may result in imports.

II **Political factors:** Political instability may cause large capital outflows and hamper the inflows of foreign capital.

III **Social factors:** Changes in tastes, preferences and fashions may affect imports and exports.

VERY SHORT ANSWER QUESTIONS.

1. **Define foreign exchange rate.**

Ans: Foreign exchange rate is the rate at which currency of one country can be exchanged for currency of another country.

2. **What do you mean by Foreign Exchange Market?**

Ans: The foreign exchange market is the market where international currencies are traded for one another.

3. **What is meant by Fixed Exchange Rate?**

Ans: Fixed Rate of exchange is a rate that is fixed and determined by the government of a country and only the government can change it.

4. **What is equilibrium rate of exchange?**

Ans: Equilibrium exchange rate occurs when supply of and demand for foreign exchange are equal to each other.

5. **Define flexible exchange rate.**

Ans: Flexible rate of exchange is that rate which is determined by the demand and supply of different currencies in the foreign exchange market.

6. **What is meant by appreciation of currencies?**

Ans: Appreciation of a currency occurs when its exchange value in relation to currencies of other country increases.

7. **What is meant by balance of payments?**

Ans: Balance of payments refers to the statement of accounts recording all economic transactions of a given country with the rest of the world.

8. **What do you mean by balance of trade?**

Ans: Balance of trade is the difference between the value of imports and exports of only physical goods.

9. **The balance of trade shows a deficit of Rs. 600 crores, the value of exports is Rs.1000 crores. What is value of Imports?**

Ans: Balance of Trade = Exports of goods – import of goods

Import of good = Export of goods – (B.O.T)

i. = 1000- (-600)

ii. = Rs. 1600.

10. What is the balance of visible items in the balance of payments account called?

Ans:- Balance of trade

11. What do you mean by disequilibrium in BOP?

Ans:- Disequilibrium in BOP means either there is a surplus or deficit in balance of payment account.

12. List two items of the capital account of BOP account.

Ans:- i) external assistance ii) commercial borrowing iii) foreign investment

13. Which transactions bring balance in the BOP account?

Ans:- Accommodating transactions bring balance in the BOP account.

14. Define autonomous items in BOP.

Ans:- Autonomous items in BOP refers to international economic transaction that take place due to some economic motive such as profit maximization. These items are independent of the state of the country balance of payments.

15. What is the other name of autonomous items in the BOP?

Ans:- The other name of autonomous items in BOP is above the line item.

16. When does a situation of deficit in BOP arise?

Ans:- A situation of deficit in BOP arises when autonomous receipts are less than autonomous payments.

17. What is meant by managed floating?

Ans:- It is a system that allows adjustments in exchange rate according to a set of rules and regulations which are officially declared in the foreign exchange market.

18. What is meant by dirty floating?

Ans:- Manipulate the exchange rate without following the guidelines issued by IMF is called dirty floating.

ANSWER QUESTIONS (3 / 4 MARKS)

1. Why is foreign exchange demanded?

Ans:- Foreign exchange is demanded for the following purposes.

Payment of International loans

Gifts and grants to rest of the world

Investment in rest of the world.

Direct purchases abroad for goods and services as well as imports from rest of the world.

2. What determines the flow of foreign exchange in to the country?

Ans: - Following factors contribute to the flow of foreign exchange in to the country.

Purchases of domestic goods by the foreigners

Direct foreign investment and portfolio investment in the home country.

Speculative purchase of foreign exchange.

When foreign tourists come to India.

3. Why does the demand for foreign exchange rise, when its price falls?

Ans:- With a fall in price of foreign exchange, the exchange value of domestic currency increases and that of foreign currency falls. This implies that foreign goods become cheaper and their domestic demand increases. The rising domestic demand for foreign goods implies higher demand for foreign exchange. So there is an inverse relationship between price and demand for foreign exchange.

4. When price of a foreign currency falls, the supply of that foreign currency also falls why?

Ans: When price of a foreign currency falls it makes exports, investment by foreign residents costlier as a result supply of foreign currency falls.

5. Distinguish between autonomous and accommodating transaction of balance of payment account.

Ans: Autonomous transactions are done for some economic consideration such as profit, such transactions are independent of the state of B.O.P. Accommodating transactions are undertaken to cover the deficit/surplus in balance of payments.

6. Give two examples explain why there is a rise in demand for a foreign currency when its price falls.

Ans: When price of foreign currency falls, imports are cheaper. So, more demand for foreign exchange by importers.

Tourism abroad is promoted as it becomes cheaper. So demand for foreign currency rises.

6. 7. Distinguish between fixed and flexible foreign exchange rate.

Ans: When foreign exchange rate is fixed by Central Bank/government, it is called fixed exchange rate. When foreign exchange rate is determined by market forces/mechanism, it is flexible exchange rate.

Sure shot Questions for upcoming Board Examination

Q1. What is Economic problem? Why does it arise explain the central problems of an economy?

Q2. Explain Production possibility curve with example. It is concave to the point of origin why?

Q3. What is Indifference curve? Explain its properties and also state the conditions of consumer equilibrium through IC approach.

Q4. Differentiate Between the following

- Change in quantity demanded and change in demand
- Change in quantity supplied and change in supply

- Q5. Explain the law of variable proportion with table and diagram and also states its reason?
- Q6. What is producers equilibrium explain the conditions of producers equilibrium with table and diagram in perfect competition using MC and MR approach.
- Q7. What is perfect competition ?explain its feature and explain the effects of free entry and exit of firm and larger number of buyers and sellers in perfect competition.
- Q8. Differentiate Between monopoly and monopolistic competition with examples and compare the nature of demand curve in both the markets with diagram.
- Q9. What is equilibrium price? Explain the effects of change in demand and supply on equilibrium price with the help of diagram?
- Q10. Explain the effects of change in demand on equilibrium price under special conditions using diagram.
- Q11. Show the effects of simultaneous change in demand and supply on equilibrium price with the help of diagram.
- Q12. Define Money and explain its primary and secondary functions.
- Q13. What is Bank? Explain the Process of credit creation by commercial Bank with an example.
- Q14. Explain the main functions of Central Bank(RBI).
- Q15. What is Government Budget? Explain its objectives and effects.
- Q16. What is Budget deficit? State its types and explain the effects of fiscal deficit on economy.
- Q17. Differentiate Between the following with example.
- a) Revenue Receipts and Capital Receipts
 - b) Revenue Expenditure and Capital Expenditure
- Q18. What is oligopoly state its feature? How oligopoly differs from perfect competition on the basis of cut throat competition.
- Q19. State any two condition in which with the change in demand and supply
- a) No effects on Equilibrium price
 - b) Equilibrium price increases
 - c) No effects on equilibrium quantity

All The Best