KENDRIYA VIDYALAYA SANGATHAN
BANGALORE REGION

STUDY/SUPPORT MATERIAL

2011-12

CLASS: XII

ECONOMICS

ACKNOWLEDGEMENTS

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Foreward

Since inception in 1965, Kendriya Vidyalayas have come to be known as centre of excellence in the field of secondary and senior secondary education. We know that "Economics" is one of the fast growing subject in the world. To make the students of K.Vs. (kevians) brilliant in economics, every year Kendriya Vidyalaya Sangathan prepares "Study/Support Material" in class XII Economics. In this year 2011-12 this task has been allotted to Bangalore Region.

This study/support material is the outcome of the efforts of the committee appointed by the Hon'ble Assistant Commissioner, K.V.S. R.O. Bangalore. This material is specially meant for the CBSE board going students of Class XII Economics to carter the needs of the below average, average, and above average students. The convener along with the members interacts with each other to improve the quality of the material compared to previous years. This material has been provided with the latest changes in the 2011-12 curriculum, split-up of marks, main key concepts of each unit, question and answers of 01 mark, 3-4 marks, 06 marks, numerical and HOTs. This book has provided space for students to think and answer which is given as a work sheet at the end of every unit.

I express my deep sense of gratitude to my worthy Assistant Commissioner Shri. Isampal who has assigned me this work. I am thankful to Smt. Nirmala Mohanan and Shri. V.M. Cherian, Education Officers of K.V.S. Bangalore Region for their valuable suggestions. I am thankful to all P.G.T Economics teachers as stated for preparing this material timely and necessary help to complete the work.

I hope this revised and reviewed study material will definitely help the students of economics and come to the expectations of the students for whom it has been prepared.

Ch. Vijaya Ratnam
Principal & Convener
K.V. T.B. Dam, Hospet.

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Weightage

ECONOMICS

CLASS XII

PART A: INTRODUCTORY MICROECONOMICS

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5.	Simple Application of Tools of Demand and Supply	–

PART B: INTRODUCTORY MACROECONOMICS

6.	National Income and Related Aggregates	15
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10.	Balance of Payments	07
	Total	**100**

SYLLABUS

PART – A: INTRODUCTORY MICROECONOMICS

UNIT 1: INTRODUCTION **10 PERIODS**

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

(**Non – evaluative topics:** Some basic tools in the study of economics – equation of a line, slope of a line, slope of a curve.)

UNIT 2 : CONSUMER EQUILIBRIUM AND DEMAND **32 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 (indifferent curve, indifference map) and conditions of Consumer's equilibrium.

Demand , market demand , determinants of demand , demand schedule , demand curve , 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.

UNIT 3 : PRODUCER BEHAVIOUR AND SUPPLY **32 PERIODS**

Production function: Total Product, Average Product and Marginal Product.

Returns to a Factor.

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 , movements along and shifts in supply curve , price elasticity of supply ; measurement of price elasticity of supply – (a) percentage – change method and (b) geometric methods.

UNIT 4: FORMS OF MARKET AND PRICE DETERMINATION 22 PERIODS

Perfect Competition – meaning and features.

Market Equilibrium under perfect competition – Determination of equilibrium price, Effects of shifts in demand and supply.

Non – Competitive Markets – monopoly, monopolistic competition, oligopoly – their meaning and features.

UNIT 5: SIMPLE APPLICATIONS OF TOOLS OF DEMAND AND SUPPLY (Not to be examined) 8 PERIODS

PART B: INTRODUCTORY MACROECONOMICS

UNIT 6: NATIONAL INCOME AND RELATED AGGREGATES 30 PERIODS

Microeconomics: It's meaning

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

Circular flow 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, at factor cost; National Disposable Income (gross and net), Private Income, Personal Income and Personal Disposable Income; Real and Nominal GDP.

UNIT 7: 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).

UNIT 8 : DETERMINATION OF INCOME AND EMPLOYMENT 25 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, availability of credit.

UNIT 9 : GOVERNMENT BUDGET AND 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 .

Fiscal policy and its role (**non – evaluative topic).**

UNIT 10: 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
4. E - Learning study material 2011-12

PART-A

INTRODUCTORY MICRO ECONOMICS

UNIT 1: INTRODUCTION

KEY CONCEPTS

- MICRO ECONOMICS
- ECONOMY
- TYPES OF ECONOMY
  - PLANNED ECONOMY
  - MARKET ECONOMY
- CENTRAL PROBLEMS OF AN ECONOMY | BASIC ECONOMIC PROBLEMS
  - WHAT TO PRODUCE?
  - HOW TO PRODUCE?
  - FOR WHOM TO PRODUCE?
- CAUSES OF AN ECONOMIC PROBLEM
- PRODUCTION POSSIBILITY CURVE
- MARGINAL OPPORTUNITY COST –MOC
- MARGINAL RATE OF TRANSFORMATION
- SCARCITY OF RESOURCES
- OPPORTUNITY COST
- POSITIVE ECONOMIC ANALYSIS AND NORMATIVE ECONOMIC ANALYSIS

1. MICRO ECONOMICS :
   It is a study of behaviour of individual units of an economy such as individual consumer, producer etc.
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. All important decisions regarding production, exchange and distributions, consumptions of goods and services are made 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) Scarcity of resources
   ii) Unlimited wants
   iii) Limited resources having alternative uses
8. BASIC (CENTRAL) ECONOMIC PROBLEMS
   i) Allocation of resources
      a. What to produce?
      b. How to produce?
      c. For whom to produce
   ii). Efficient Utilization of resources
   iii.) Growth of resources
9. PRODUCTION POSSIBILITY CURVE (PPC):
   PP 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 of a particular good along PPC is the amount of other good which is sacrificed for production of additional unit of another good.
11. MARGINAL RATE OF TRANSFORMATION: MRT is the ratio of units of one good sacrificed to produce one more unit of other good.

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

12. SCARCITY OF RESOURCES: Scarcity of resources means shortage of resources in relation to their demand.
13. OPPORTUNITY COST: It is the cost of next best alternative foregone.
14. POSITIVE ECONOMICS: Positive economics deals with what is, what was (or) how an economic problem facing the society is actually solved.
15. NORMATIVE ECONOMICS: It deals with what ought to be (or) how an economic problem should be solved.

VERY SHORT ANSWER QUESTIONS (1 MARK)

1. What is economics about?

Ans : - Economics is the study of the problem of choice arising out of scarcity of resources having alternative uses.

2. Define scarcity.

Ans : - Scarcity means shortage of resources in relation to their demand is called scarcity.

3. What is an economy?

Ans : - An economy is a system by which people get their living.

4. Define central problem.

Ans : - Central problem is concerned with the problems of choice (or) the problem of resource allocation.

5. What do you understand by positive economic analysis?

Ans : - It deals with what is (or) how an economic problem facing an economy is solved. It analyses the cause of effect relationship.

6. What do you understand by normative economic analysis?

Ans : - Normative economic analysis deals with what ought to be (or) how an economic problem should be solved.

7. Give one reason which gives rise to economic problems?

Ans : - Scarcity of resources which have alternative uses.

8. Name the three central problems of an economy.

Ans : - i) What to produce?

ii) How to produce?

iii) For whom to produce?

9. What is opportunity cost?

Ans : - It is the cost of next best alternative foregone.

10. Why is there a need for economizing of resources?

Ans : - Resources are scarce in comparison to their demand, therefore it is necessary to use resources in the best possible manner without wasting it.

11. What is production possibility frontier?

Ans : - It is a boundary line which shows the various combinations of two goods which can be produced with the help of given resources and technology.

12. Why PPC is concave to the origin?

Ans :- PPC is concave to the origin because of increased marginal opportunity cost.

13. Define marginal rate of transformation.

Ans :- MRT is the ratio of units of one good sacrificed to produce one more unit of

other goods. MRT = $\Delta y / \Delta x$

14. What does a point inside the PPC indicate?

Ans :- Any point inside the production possibility curve indicate underutilization of resources.

15. What do you mean by the problem of what to produce?

Ans :- It is the problem of choosing which goods and services should be produced in what quantities.

16. What do you understand by the problem of how to produce?

Ans :- It is the problem of choosing technique of production of goods and services.

17. What does the problem for whom to produce indicate?

Ans :- The problem of for whom to produce refers to the distribution of goods and services produced in the economy.

18. Give two examples each of micro economics & macroeconomics.

Ans :- Micro economics – Individual demand, individual supply

Macroeconomics – Aggregate demand and aggregate supply

19. What does a rightward shift of PPC indicate?

Ans :- It indicates a) growth of resources b) improvement in technology

20. What is meant by economising of resources?

Ans :- It means making best use of available resources.

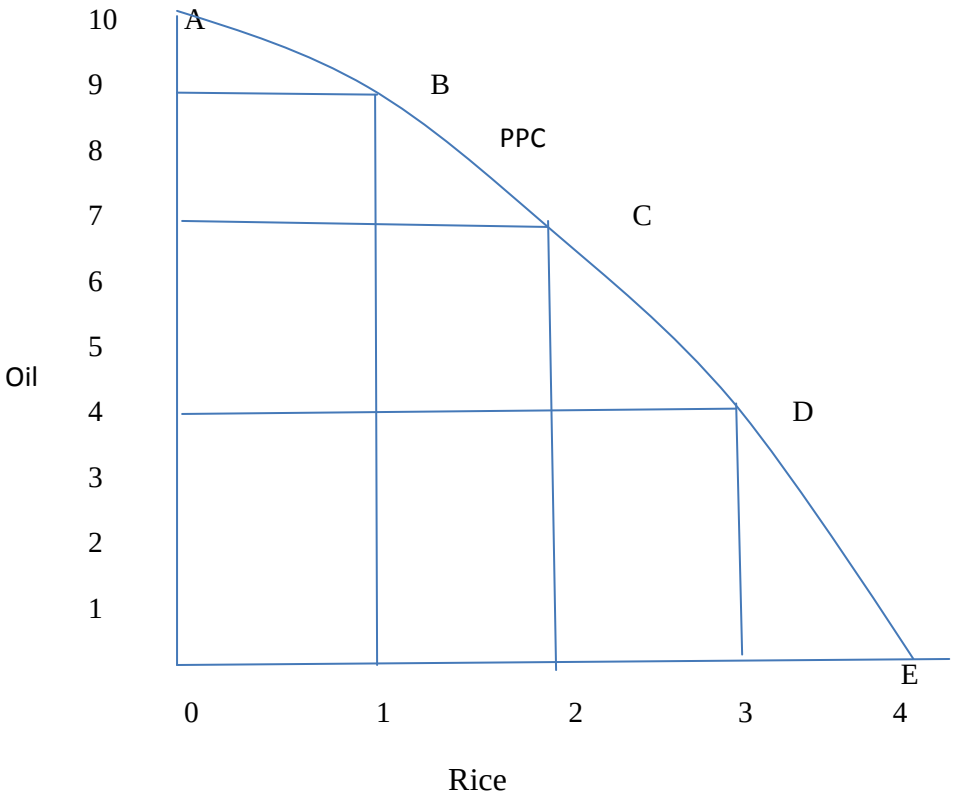
SHORT ANSWER QUESTIONS (3 / 4 MARKS)

1. What is production possibility frontier?

Ans :- It is a boundary line which shows that maximum combination of two goods which can be produced with the help of given resources and technology at a given period of time.

Ex: An economy can produce two goods say rice or oil by using all its resources. The different combination of rice and oil are as follows:

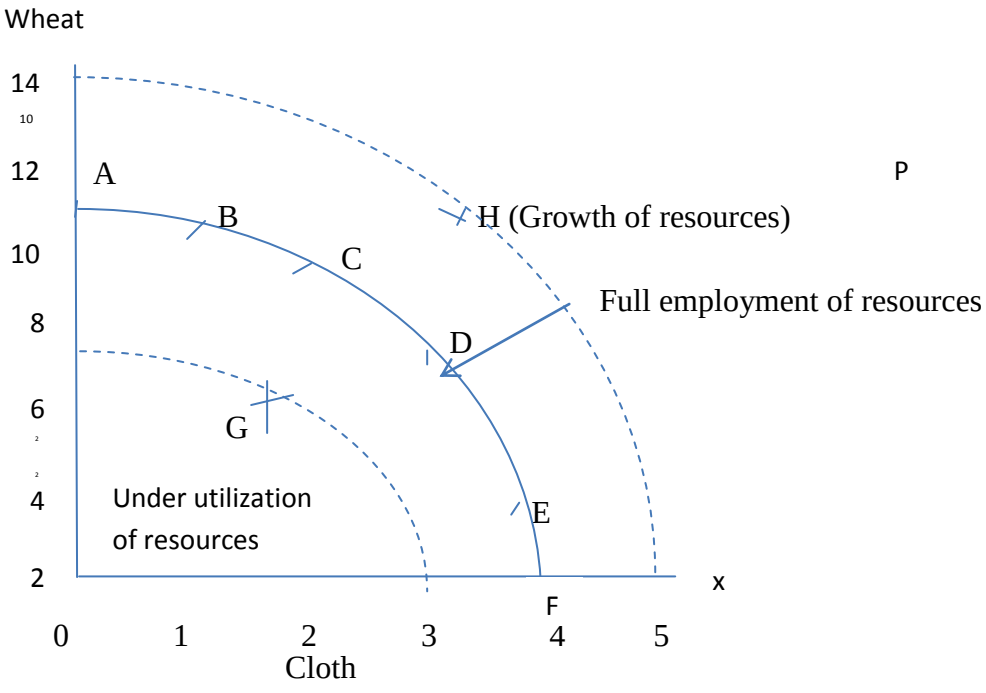
Production Possibilities	Rice (quintals)	Oil (litres)
A	0	10
B	1	9
C	2	7
D	3	4
E	4	0



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

a) underutilization of resources
b) full employment of resources
c) growth of resources

Ans. Every point on PP curve like ABCDEF indicates full employment and efficient uses of resources.
Any point below or inside PP curve like G underutilization of resources.
Any point above PP curves like H indicates growth of resources.

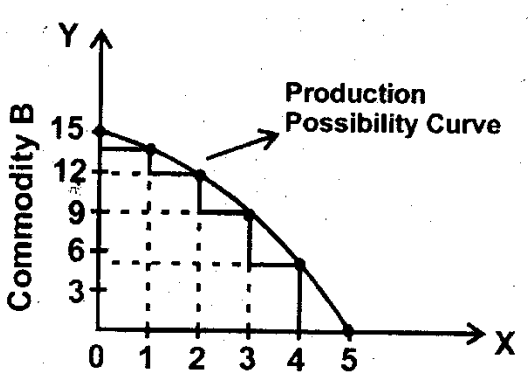


Production Possibility Curve And Opportunity Cost

It refers to a curve which shows the various production possibilities that can be produced with given resources and technology.

Production Possibilities

Production Possibility	Commodity A	Commodity B	Marginal opportunity cost of commodity A
A	0	15	-
B	1	14	15-14=1
C	2	12	14-12=2
D	3	09	12-9=3
E	4	05	9-5=4
F	5	0	5-0=5



Commodity A

If the economy devotes all its resources to the production of commodity B, it can produce 15 units but then the production of commodity A will be zero. There can be a number of production possibilities of commodity A & B

If we want to produce more commodities B, we have to reduce the output of commodity A & vise versa.

Shape of PP curve and marginal opportunity cost.

1) PP curve is a downward sloping curve.

In a full employment economy, more of one goods can be obtained only by giving up the production of another 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 forgone 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.

Example: Suppose a doctor having a private clinic in Delhi is earning Rs. 5lakhs annually. There are two other alternatives for him.

1) Joining a Govt. hospital in Bangalore earning Rs. 4 lakhs annually.

2) Opening a clinic in his home town in Mysore and earning 3 lakhs annually.

The opportunity cost will be joining Govt. hospital in Bangalore.

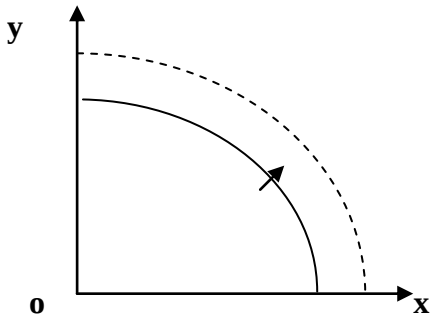
Increasing marginal opportunity cost implies that PPC is concave.

Shift in PP curve

(1) Upward shift

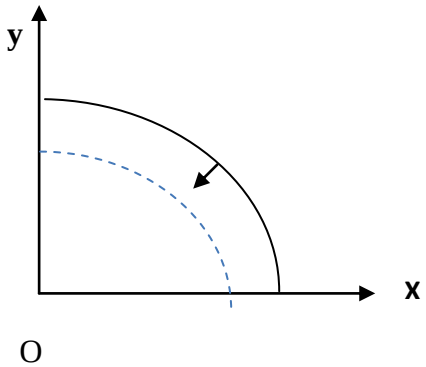
(a) When there is improvement in technology.

(b) Increase in resources.



(2) Down ward shift

When Resources depletes



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3.Distinguish between a centrally planned economy and a market economy.

SNo	Planned Economy	Market Economy
1	All the materials means of production are owned by government.	All the materials means of production are owned by private individuals.
2	Main objectives of production is social welfare	Main objectives of production are maximization of profit.
3	Ownership of property is under government control.	There is no limit to private ownership of property.
4	All the economic problems are solved as per direction of the planning commission.	All the economic problems are solved through price mechanism i.e., demand and supply.

4. Distinguish between micro economics and macroeconomics.

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:- Massive unemployment will shift the PPC to the left because labour force remains underutilized. The economy will produce inside the PPC indicating 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

4. Difference between positive and normative economics.

SNo	Positive Economics	Normative Economics
1	It deals with what is what was.	It deals with what ought to be.
2	It is based on cause and effect of facts.	It is based on ethics.
3	It can be verified with actual data	It cannot be verified with actual data.
4	In this value of judgments are not given.	In this value of judgments are given.

How are fundamental problems solved in the capitalistic economy.

In a market-oriented or capitalist economy, the fundamental problems are solved by the market mechanism. Price is influenced by the market forces of demand and supply. These forces help to decide what, how and for whom to produce.

How are fundamental problems solved in the planned economy.

In a planned economy all the economic decisions regarding what, how and for whom to produce are solved by the state through planning. Economic planning replaces the price mechanism. The market is regulated by the state. The prices of the various products are fixed by the state called administered prices.

UNIT 2

CONSUMER EQUILIBRIUM AND DEMAND

KEY CONCEPTS

1. UTILITY
    A) MARGINAL UTILITY
    B) LAW OF DIMINISHING MARGINAL UTILITY
2. CONDITIONS OF CONSUMER'S EQUILIBRIUM
3. INDIFFERENCE CURVE ANALYSIS
4. THE CONSUMER'S BUDGET
    A) BUDGET SET
    B) BUDGET LINE
5. PREFERENCES OF THE CONSUMER
    A) INDIFFERENCE CURVE
    B) INDIFFERENCE MAP
6. CONDITIONS OF CONSUMER'S EQUILIBRIUM
7. DEMAND
    A) INDIVIDUAL DEMAND
    B) MARKET DEMAND
    C) DEMAND SCHEDULE
    D) DEMAND CURVE
8. DETERMINANTS OF DEMAND
9. MOVEMENT ALONG THE DEMAND CURVE
    A) EXTENSION
    B) CONTRACTION
10. SHIFT IN THE DEMAND CURVE
    A) INCREASE IN DEMAND
    B) DECREASE IN DEMAND
11. MEASUREMENT OF PRICE ELASTICITY OF DEMAND
    A) TOTAL EXPENDITURE METHOD
    B) PROPORTIONATE METHOD
    C) GEOMETRIC METHOD
12. FACTORS AFFECTING PRICE – ELASTICITY OF DEMAND

ONE MARK QUESTIONS AND ANSWERS

1. What do you mean by utility?

Ans :- Utility is the want satisfying power of a commodity.

2. How is total utility derived from marginal utility?

Ans :- Total utility is the sum total of marginal utilities of various units of a commodity.

TUn= MU1+MU2+MU3------ +MUn

3. State the law of equi-marginal utility.

Ans :- It states that a consumer gets maximum satisfaction when the ratio of the marginal utilities of two goods and their prices is equal i.e., MUx / Px = MUy / Py

4. What will you say about MU when TU is maximum?

Ans :- MU is zero when TU is maximum

5. Give the reason behind a convex indifference curve.

Ans :- Diminishing marginal rate of substitution.

HOTS QUESTIONS

1. Give the formula for calculating the slope of the budget line.

Ans :- It is equal to the ratio of the prices of the two commodities , i.e., Px / Py

2. Suppose a consumer's preferences are monotonic. What can you say about his preference ranking over the bundles (10,10),(10,9) and (9,9)?

Ans :- Consumer will monotonically prefer bundle (10,10) to (10,9) and (9,9) and also prefer bundle (10,9) to (9,9)

3. A rise in the income of the consumer leads to a fall in the demand for commodity 'x'. What type of good is commodity 'x'?

Ans :- Inferior good

4. What do you mean by substitute and complementary goods? Give two examples each.

   Ans :- Substitute goods are those goods which can be used in place of each other. Ex. Tea and Coffee. Complementary goods are those goods which are used together to satisfy a given want. Ex : Car and petrol.

5. Mention one factor that causes a left ward shift of the demand curve.

   Ans :- Fall in income of a consumer.

6. What causes a movement along the demand curve of a commodity?

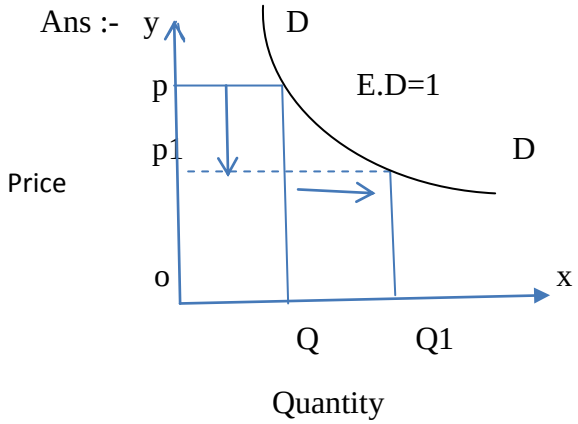
   Ans :- When the price of a commodity changes and other factors remain constant , there will be movement along the demand curve.

7. What is demand function?

Ans: - A demand function shows the functional relationship between the quantity demanded and the factors on which demand depends on.

8. Draw a demand curve with unitary elasticity.

Ans :-



9. Define price elasticity of demand.

Ans :- It refers to the degree of responsiveness of quantity demanded to change in price.

3. AND 4 MARKS QUESTIONS & ANSWERS

1. Explain the law of Diminishing Marginal Utility with the help of a table and a diagram.

Ans :- The law of diminishing Marginal Utility states that as we consume more and more units of a commodity, the MU derived from the successive units of that commodity goes on decreasing. It is explained with the help of following schedule and diagram.

Relationship between MU and TU :

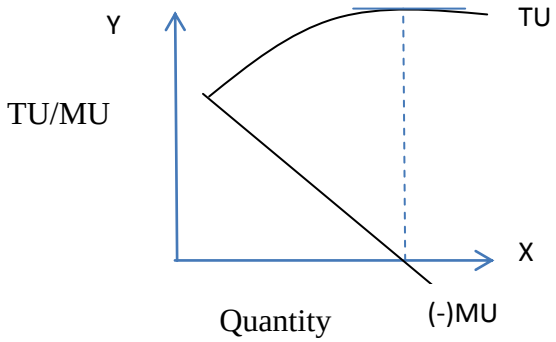
i) When MU is positive TU rises.

ii) When MU is zero TU is maximum.

iii) When MU is negative, TU falls

UNITS	TU	MU
1	8	8
2	14	6
3	18	4
4	20	2
5	20	0
6	18	-2

Diagram:



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

a) Meaning: A consumer is to be equilibrium when he is spending his given income on various goods and services to get maximum satisfaction.

b) Conditions:

i) MUx / Px = MUy / Py (MUs are equal to their prices)

ii) Px x Py + Py x Qy =

iii) M (Money spent is equal to income)

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

S.No.	**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.

4. Explain any three determinants of demand for a commodity.

Ans :- Following are the three determinants of demand for a commodity.

i) Price of the commodity:- When the price of a commodity increases the demand for that commodity decreases and vice versa.

ii) Income of the consumer:- When the income increases the demand for that commodity also increases and vice-versa.

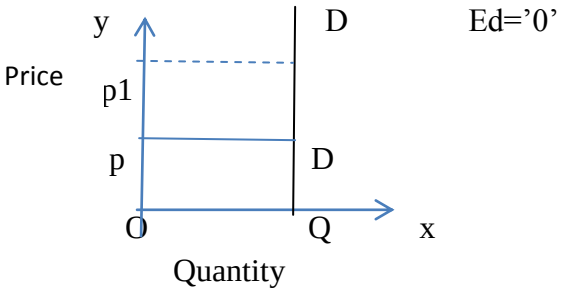
iii) Price of related goods :-

a) In complementary goods demand rises with fall in price.

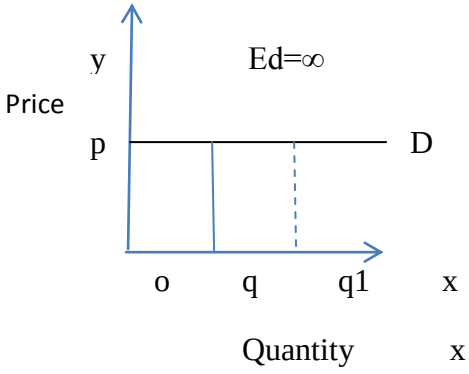
b) In substitute goods demand for a commodity falls with a fall in the price of other substitute goods.

5. Draw a) perfectly elastic demand curve, b) perfectly in-elastic demand curve and c) unitary elastic demand curve.

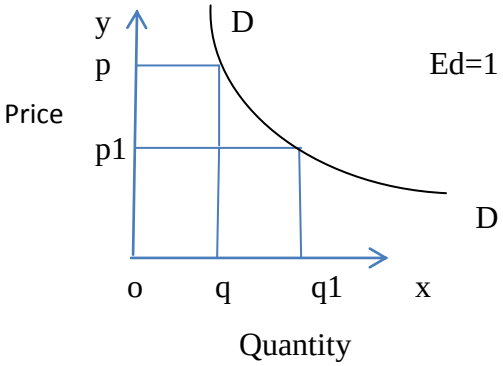
Ans :- a) perfectly in-elastic demand



b) perfectly elastic



c) unitary elastic demand



6. Explain any four factors that affect elasticity of demand.

Ans :- Following are the factors affecting price elasticity of demand.

a) Nature of the commodity.
b) Level of income.
c) Availability of substitutes.
d) Tastes and preferences.
e) Possibility of postponement of use.
f) Various uses of the commodity.

HOTS

1. Is the demand for the following elastic, moderate elastic, highly elastic? Give reasons.

   (i) Demand for petrol
   (ii) Demand for text books
   (iii) Demand for cars
   (iv) Demand for milk

   Ans :- i) Demand for petrol is moderately elastic , because when the price of the petrol goes up , the consumer will reduce the use of it.

   ii)Demand for text books is completely inelastic. In case of text books, even a substantial change in price leaves the demand unaffected.

   iii) Demand for cars is elastic. It is a luxury good, when the price of the car rises, the demand for the car comes down.

   iv) Demand for milk is elastic, because price of the milk increases then the consumer purchase less quantity milk.

2. What is the relationship between slope and elasticity of a demand curve?

   Ans :- The formula of Ed is $Ed = \Delta Q / \Delta P * P / Q$

   The formula for the slope of the demand curve is , $slope = \Delta P / \Delta Q$

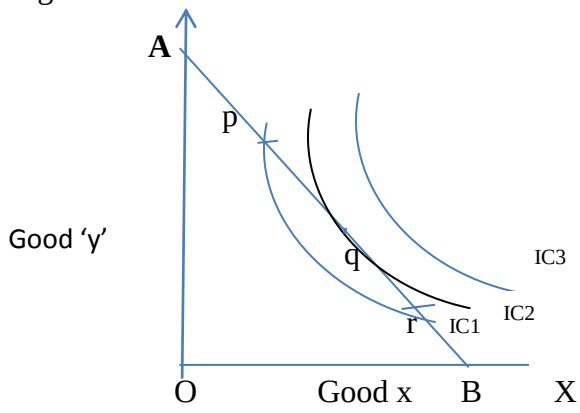
   The relationship between slope and elasticity of demand is , $Ed = 1 / slope * P/Q$

6 MARK QUESTIONS

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

Ans :- a) definition: In the indifference curve approach, consumer's equilibrium is achieved at the point at which budget line just touches a particular indifference cure, i.e. the point, at which the budget line is tangent to a particular indifference curve. This is the point of maximum satisfaction.

b) Diagram:



c) Diagram Explanation:

i) 'AB' is the budget line.

ii) It is sure that consumer's equilibrium will lie on some point on 'AB'

iii) Indifference map (set of IC1 , IC2 , IC3) shows consumers scale of preferences between different combinations of good 'x' and good 'y'

iv) Consumers equilibrium will achieve where budget line (AB) is tangent to the IC2.

d) Essential conditions for consumers equilibrium:

i) Budget line must be tangent to indifference curve i.e., MRS xy = Px / Py

ii) Indifference curve must be convex to the origin.

e) Consumers cannot achieve the following:

i) P and 'r' points on budget line give satisfaction, but, choosing point 'q' puts him on a higher IC gives more satisfaction.

ii) He cannot move on IC3 , as it is beyond his money income.

4. Explain the effect of the following on the market demand of a commodity.

   a. Change in price of related goods
   b. Change in the number of its buyers.

Ans :- i) Meaning: Market demand is the aggregates of the quantities demanded by all the consumers in the market at different prices.

ii) Factors affecting market demand :

a) Price of the commodity: When the price goes up demand for its 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 :
    i) Complementary goods :The demand for a commodity rises with a fall in the price of its complementary good (Car and petrol)
    ii) 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.

5. 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 (Ed=∞):- a slight or no change in the price leads to infinite changes in the quantity demanded.

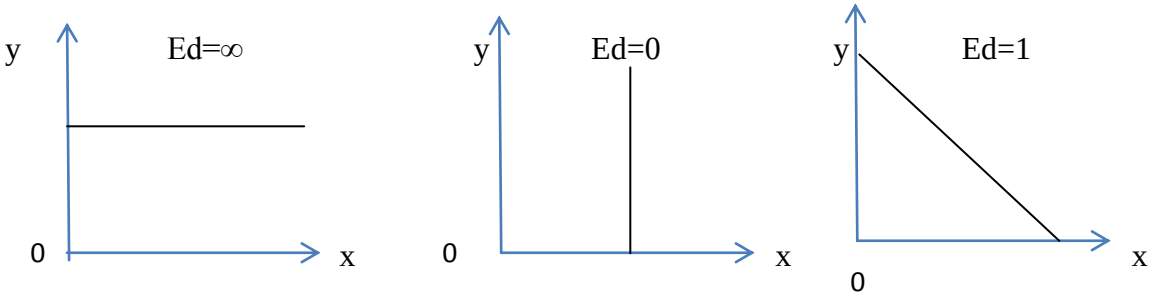
b) Perfectly Inelastic demand (Ed=0) :- Demand of a commodity does not change at all irrespective of any change in its price.

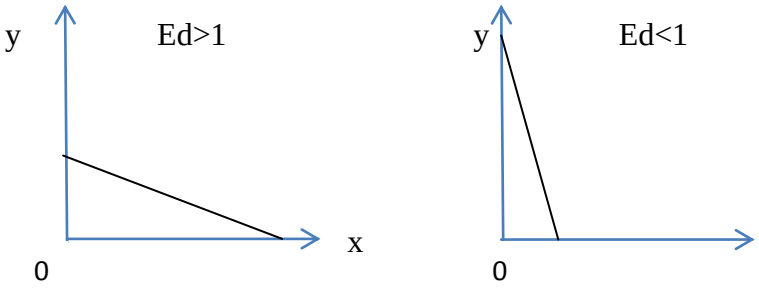
c) Unitary elastic demand (Ed=1):- When the percentage change in demand (%) of a commodity is equal to the percentage change in price.

d) Greater than unitary elastic demand (Ed>1):- When percentage change in demand of a commodity is more than the percentage change in its price.

e) Less than unitary elastic demand (Ed<1) :- When percentage change in demand of a commodity is less than the percentage change in its price.

Diagrams





Numerical for practice

6. Derive the total utility schedule from the marginal utility.

Units consumed	Marginal utility
1	12
2	11
3	8
4	6
5	3
6	0

7. A consumer buys 50 units of a good at Rs. 4/- per unit. When its price falls by 25 percent its demand rises to 100 units. Find out the price elasticity of demand.

Ans:- Ed=4

8. Price elasticity of demand for wheat is equal to unity and a household demands 40 Kg of wheat when the price is Rs.1 per kg. At what price will the household demand 36 kg of wheat?

Ans:- The price of wheat rises to Rs.1.10 per kg.

9. The quantity demanded of a commodity at a price of Rs.10 per unit is 40 units. Its price elasticity of demand is -2. Its price falls by Rs.2/- per unit. Calculate its quantity demanded at the new price.

Ans :- 56 units.

UNIT 3

PRODUCER BEHAVIOUR AND SUPPLY

Basic concepts to be studied under this unit.

Production function : refers to the functional relationship between inputs and output for a given state of technology.

$O_x = f(i_1, i_2 \ldots\ldots\ldots i_n)$

Where ,

O_x = output of x commodity
f = functional relationship
$i_1, i_2 \ldots\ldots\ldots i_n$= 'n' number of inputs required to produce output of x.

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. In other words 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.

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.

Fixed factors : These factors remain fixed or cannot be changed in the short run.

Variable factors : These factors are varied to bring about changes in output.

Concept of product :- Refers to volume of goods produced by a firm or an industry during a specific period of time.

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.

Average product = output per unit of variable input.

APP =TPP / units of variable factor

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.

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

MP_n = Marginal product of nth unit of variable factor

TP_n = Total product of n units of variable factor

TP_{n-1}= Total product of (n-1) unit of variable factor.

n=no. of units of variable factor

$MP = \Delta TP / \Delta n$

We derive TP by summing up MP

$TP = \sum MP$

LAW OF VARIABLE PROPORTION OR RETURNS TO A VARIABLE FACTOR

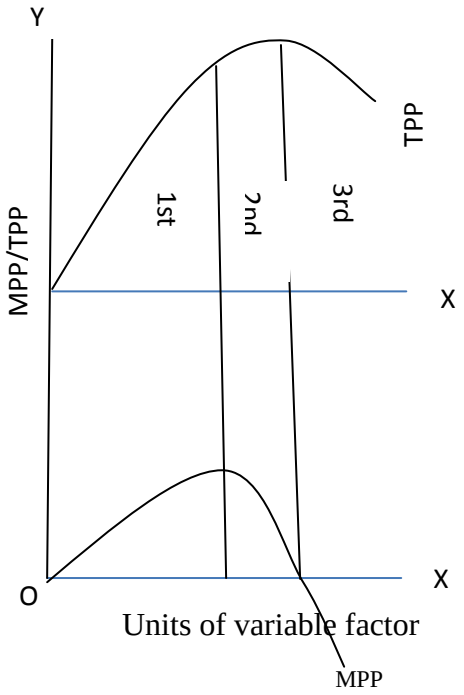
Statement of law of variable proportion: In short period, when only one variable factor is increased, keeping other factors constant, the total product (TP) initially increases at an increasing rate, then increases at a decreasing rate and finally TP decreases.

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

Diagram



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.

Reasons for increasing returns to a factor

- Better utilizations of fixed factor
- Increase in efficiency of variable factor.
- Indivisibility of factors.
- Reasons for diminishing returns to a factor.
- Optimum combination of factors
- Imperfect substitutes.

Reasons for negative returns to a factor

- Limitation of fixed factors
- Poor coordination between variable and fixed factor
- Decrease in efficiency of variable factors.

Relation between MPP / MP – TPP / TP

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

Short answer questions and Long answer questions

1. What is meant by production?

Ans :- Transformation of Input into Output.

2. What will be MP when TP is maximum?

Ans :- MP will be zero.

3. Define market period, Short run & Long run.

Ans :- Refer time period.

4. Explain the law of variable proportions with the help of a schedule and a diagram 6 Marks
5. What are the reasons for 6 Marks
   a) Increasing returns to a factor
   b) Diminishing returns to a factor
   c) Negative returns to a factor
6. Explain the difference between MPP & TPP. 4 Marks

HOTS

Giving reasons, state whether the following statements are true or false :

1. When there are diminishing returns to a factor, total product always decreases.

Ans :- False, as TPP increases at a decreasing rate when there is diminishing returns to a factor.

2. TPP increases only when MPP increases.

Ans :- False, TPP also increases when MPP decreases but remains positive.

3. Increase in TPP always indicates that there are increasing returns to a factor.

Ans :- False . TPP increases even when there are diminishing returns to a factor.

4. When there are diminishing returns to a factor marginal and total products always fall.

Ans: - False, only MPP falls, not TPP. In case of diminishing returns to a factor TPP increase at diminishing rate.

5. Calculate MP for the following.

Variable factor unit	0	1	2	3	4	5	6
TP unit	0	5	13	23	28	28	24

Ans :-MP: 0 5 8 10 5 0 -4

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)

Where c= cost of production

q=quantity of product

f=functional relationship

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 : Cost incurred on the self - owned factors of production.

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

Opportunity cost : is the cost of next best alternative foregone / sacrificed.

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.

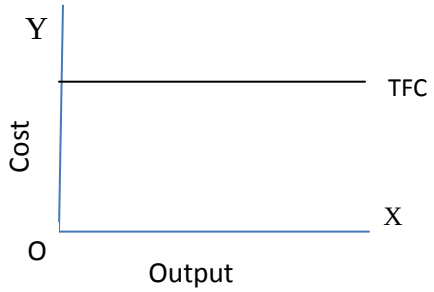
These costs are present in short run but disappear in the long run.

Numerical example of fixed cost

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

TFC = Total Fixed Cost

Diagrammatic presentation of TFC



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

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

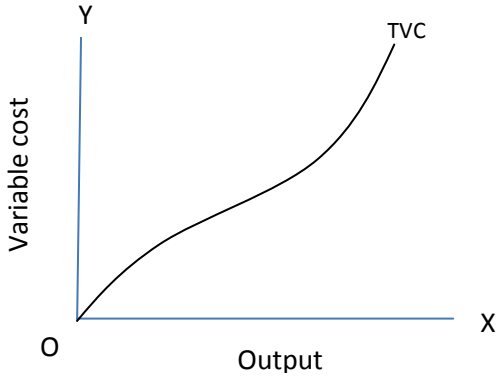
These costs are also called "prime costs", "Direct cost" or "avoidable cost".

These costs are zero when output is zero.

Numerical example,

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

Diagrammatic presentation of TVC



Difference between TVC & TFC

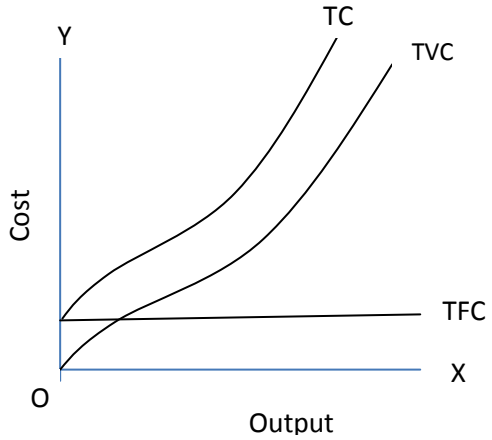
Basis	TVC	TFC
Meaning	Vary with the level of output	Do not vary with the level of output
Time period	Can be changed in short period	Remain fixed in short period
Cost at zero output	Zero	Can never be zero
Factors of production	Cost incurred on all variable factors	Cost incurred on fixed factors of production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

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

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

Relation between TC , TFC and TVC

1. TFC is horizontal to x axis.
2. TC and TVC are inversely, 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.

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

AFC = TFC / Q or 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 / 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 / Output

AC = AFC + AVC

Phases of AC

I phase : When both AFC and AVC fall , AC also fall
II phase : When AFC continue to fall , AVC remaining constant AC falls till it reaches minimum.
III phase : AC rises when rise in AVC is more than fall in AVC.

Important observations of AC , AVC & AFC

1. AC curve always lie above AVC (because AC includes AVC & AFC at all levels of output).
2. AVC reaches its minimum point at an output level lower than that of AC because when AVC is at its minimum AC is still falling because of fall in AFC.
3. As output increases, the gap between AC and AVC curves decreases but they never intersect.

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

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

$MC = \Delta TC / \Delta Q$

Note : MC is not affected by TFC.

Relationship between AC and MC

- Both AC & MC are derived from TC
- Both AC & MC are "U" shaped (Law of variable proportion)
- When AC is falling MC also falls & lies below AC curve.
- When AC is rising MC also rises & lies above AC
- MC cuts AC at its minimum where MC = AC

Important formulae at a glance

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

Short answers and Long Answer questions:

1. What is cost of production?
2. Define cost function.
3. What are money costs?
4. Distinguish between explicit and implicit costs.
5. How do you define an opportunity cost?
6. What difference you find between fixed and variable costs?
7. Why the fixed cost curve is a horizontal straight line to the X axis?
8. Why variable costs are are variable?
9. What is average cost? How do you derive it?
10. Explain AVC, AFC & ATC and explain the relationship between these costs.
11. Explain the relationship TC, TFC & TVC.
12. With a diagram describe the various phases of AC.
13. Bring out the relationship between AC & MC

HOTS

1. Why AFC curve never touches 'x' axis though lies very close to x axis?

Ans :- Because TFC can never be zero.

2. Why AVC and AFC always lie below AC?

Ans:- AC is the summation of AVC & AFC so AC always lies above AVC & AFC.

3. Why TVC curve start from origin?

Ans:- TVC is zero at zero level of output.

4. When TVC is zero at zero level of output, what happens to TFC or Why TFC is not zero at zero level of output?

Ans:- Fixed cost are to be incurred even at zero level of output.

Revenue

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 = Quantity sold × Price (or) output sold × price

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

- AR = TR / Output sold
- AR and price are the same.
- TR = Quantity sold × price or output sold × price
- AR = (output / quantity × price) / Output/ quantity
- AR= price

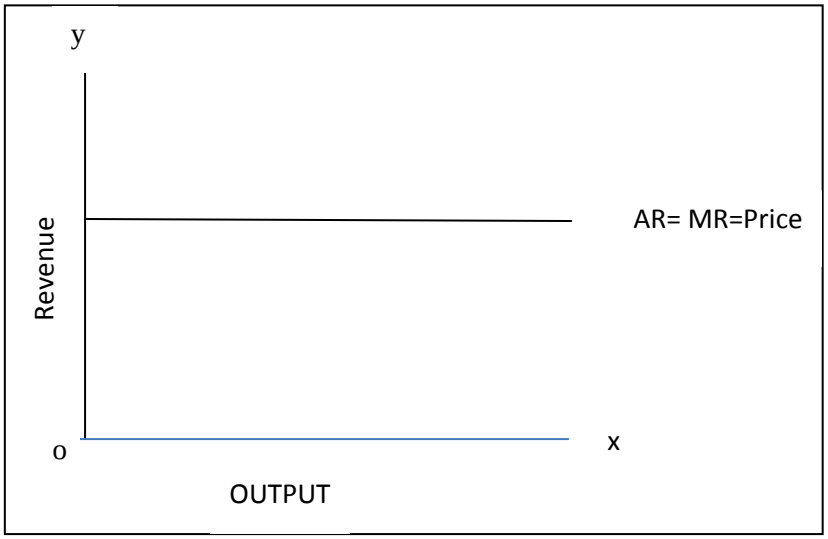
AR and demand curve are the same. Shows the various quantities demanded at various prices.

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

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

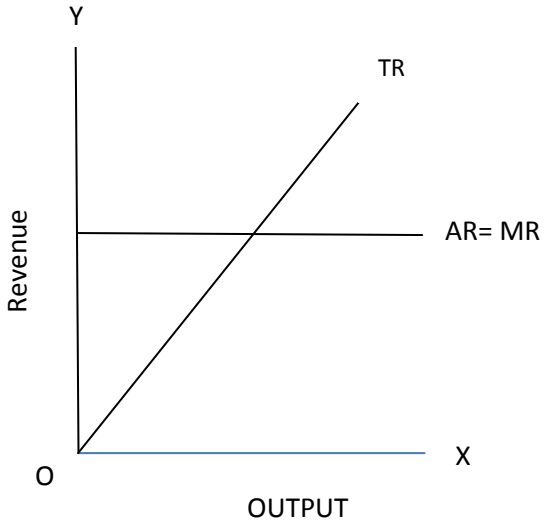
Relationship between AR and MR (when price remains constant or perfect competition)

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 or 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)

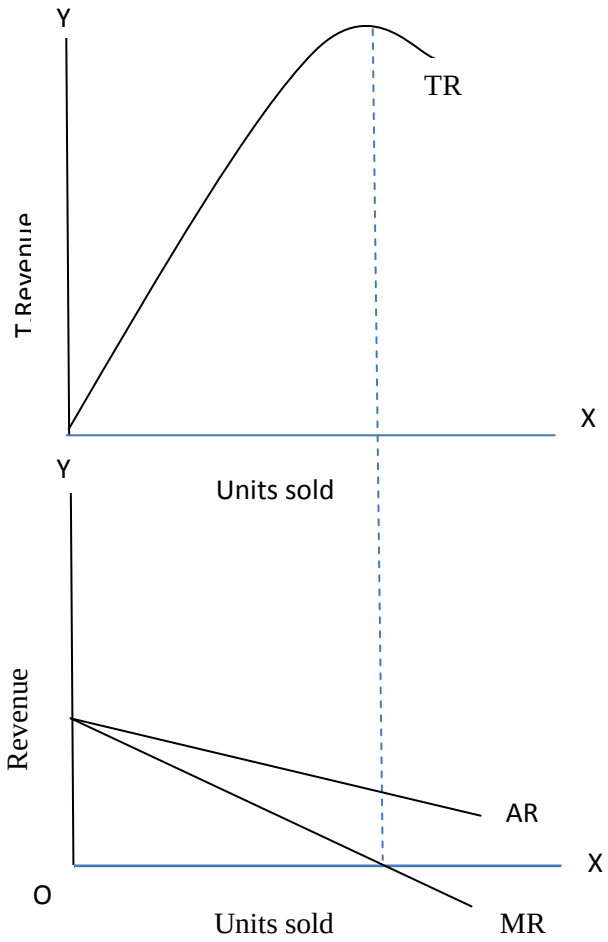


Relationships between AR and MR under monopoly and monopolistic competition (Price changes or under imperfect competition)

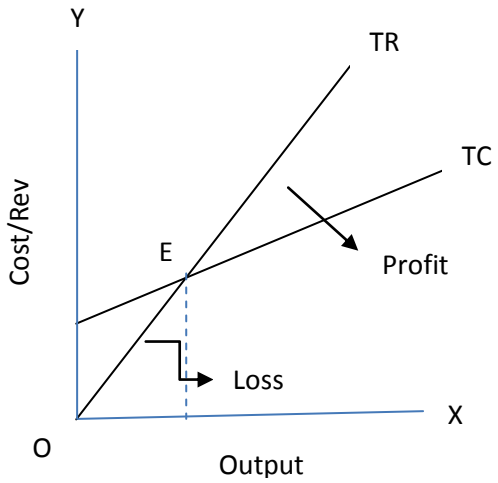
- AR and MR curves will be downward sloping in both the market forms.
- AR lies above MR.
- AR can never be negative.
- AR curve is less elastic in monopoly market form because of no substitutes.
- AR curve is more elastic in monopolistic market because of the presence of substitutes.

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's that point where TR = TC. or AR=AC. Firm will be earning normal profit.



Point- E' Break–even point.

Below E' loses.

Any point above E' profits.

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

Formulae at a glance:

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

HOTS

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 nothing but 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.

5. What do you mean by revenue?
6. Explain the concept of revenue (TR, AR and MR)
7. Define AR
8. Prove that AR = price

9. Prove that AR is nothing but demand curve
10. Explain the relationships between AR and MR when price is constant and when price falls.
11. Explain the relationships between TR and MR when price is constant.
12. What is break- even point? Explain with a diagram.
13. When the situation of 'shut – down' point arises for a firm?
14. What happens to TR when a) MR is increasing, b) decreasing but remains positive andc) MR is negative?

Ans:- a) TR increases at an increasing rate.

b) TR increases at a diminishing rate.

c) TR decreases.

15. Why AR is more elastic in monopolistic competition than monopoly?

    Ans:- Monopolistic competition market has close substitutes. Monopoly market does not have close substitutes.

16. Why TR is 45^0 angle in perfect competition market?

    Ans:- In perfect competition market the goods are sold at the same price so AR= MR and the TR increases at a constant rate.

17. Can there be Break- even point with AR = AC

    Ans:- Yes there can be breakeven point with AR=AC.

UNIT – IV

FORMS OF MARKET AND PRICE DETERMINATION

MARKET : Market is a mechanism in which buyers and sellers come into contact for the purchase and sale of goods and services.

Market structure: refers to number of firms operating in an industry, nature of competition between them and the nature of product.

Types of market on the basis of competition

a) Perfect competition.
b) Monopoly.
c) Monopolistic Competition.
d) Oligopoly.

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 sell closely related but differentiated products.

d) Oligopoly is a market structure in which there are few sellers of a commodity and large number of buyers.

e) Duopoly:- refers to a market situation where there are only two sellers/producers selling a commodity

Features of perfect competition:

1. Very large number of buyers and sellers.
2. Homogeneous product.
3. Free entry and exit of firms.
4. Perfect knowledge.
5. Perfect mobility of factors of production.
6. Absence of transportation cost.
7. 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.
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. High transportation cost.
7. Partial control over price.

Main features of Oligopoly.

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

Features of pure competition

1. Large number of buyers and sellers.
2. Homogeneous products.
3. Free entry and exit of firm.

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

<u>Very short answer questions</u>

1. Define perfect competition

Ans:- Perfect competition is a market with large number of buyers and sellers , selling homogeneous product at same price.

2. Define monopoly.

Ans: Monopoly is a market situation dominated by a single seller who has full control over the price.

3. Define monopolistic competition.

Ans:- It refers to a market situation in which many buyers and sellers selling differentiated product and have partial control over the price.

4. Under which market form firm is a price maker?

Ans:- Perfect competition

5. What are selling cost?

Ans:- Cost incurred by a firm for the promotion of sale is known as selling cost.

6. What is oligopoly?

Ans:- Oligopoly is defined as a market structure in which there are few sellers of the commodity.

7. In which market form is there product differentiation?

Ans:- Monopolistic competition market

8. What is product differentiation?

Ans: It means close substitutes offered by different producers to show their output differ from other output available in the market. Differentiation can be in color, size packing, brand name etc to attract buyers.

9. What do you mean by patent rights?

Ans:- Patent rights is an exclusive right or license granted to a company to produce a particular output under a specific technology.

10. What is price discrimination?

Ans: - It refers to charging of different prices from different consumers for different units of the same product.

11. What is the shape of marginal revenue curve under monopoly?

Ans:- Under monopoly market MR curve is downwards sloping curve form left to right and it lies below the AR curve.

12. What do you mean by abnormal profits?

Ans:- It is a situation for the firm when TR > TC.

13. Why AR is equal to MR under perfect competition?

Ans:- AR is equal to MR under perfect competition because price is constant.

14. What are advertisement costs?

Ans:- Advertisement cost are the expenditure incurred by a firm for the promotion of its sales such as publicity through TV , Radio , Newspaper , Magazine etc.

15. What is short period?

Ans:- Short period refers to that much time period when quantity of output can be changed only by changing the quantity of variable input and fixed factors remaining same.

16. Define long period.

Ans:- Long period refers to that much time period available to a firm in which it can increase its outputs by changing its fixed and variable inputs.

17. What is market period?

Ans: Market period is defined as a very short time period in which supply of commodity cannot be increased.

18. What is meant by normal profit?

Ans:- Normal profit is the minimum amount of profit which is required to keep an entrepreneur in production in the long run.

19. What is break-even price?

ANs:-In a perfectly competitive market, break- even price is the price at which a firm earn normal profit (Price=AC). In the long run, Break- even price is that price where P=AR=MC

<u>Short Answer Questions: (3 / 4 Marks)</u>

1. 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.

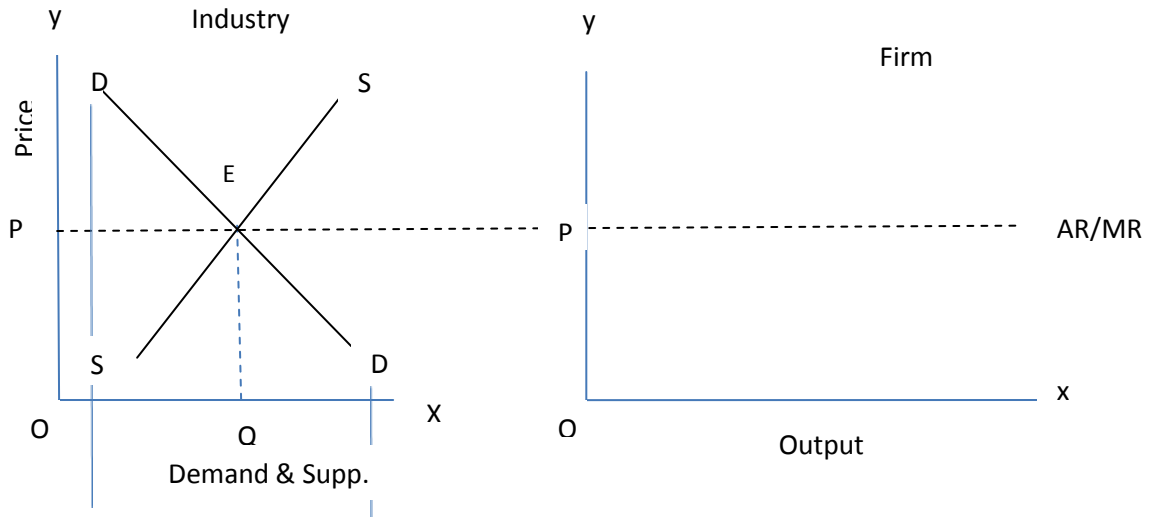
ii) Homogeneous products: Products are uniform in nature. The products are perfect substitute of each other. No seller can charge a higher price for the product. Otherwise he will lose his customers.

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.

2. 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 of 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.



3. Distinguish between monopoly and perfect competition.

Ans:-

Perfect Competition	**Monopoly**
Very large number of buyers and sellers.	Single seller of the product.
Products are homogenous	Product has no close substitute
Firm is the price taker and not a maker	Firm is price maker not price taker
Price is uniform in the market ie price =AC	Due to price discrimination price is not uniform.
Free entry and exit of firms.	Very difficult entry of new firms.

4. Which features of monopolistic competition are monopolistic in nature?

Ans:- i) Product differentiation
ii) Control over price
iii) Downward sloping demand curve

5. What are the reasons which give emergence to the monopoly market?

Ans:-

i) Patent Rights: Patent rights are the authority given by the government to a particular firm to produce a particular product for a specific time period.

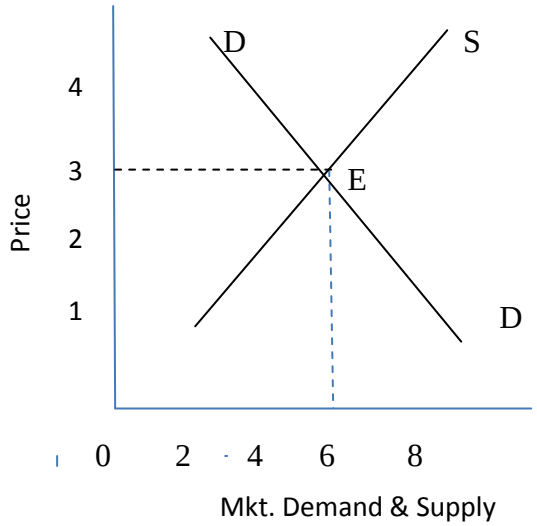
ii) Formation of Cartel: Cartel refers to a collective decision taken by a group of firms to avoid outside competition and securing monopoly right.

iii) Government licensing: Government provides the license to a particular firm to produce a particular commodity exclusively.

6. 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.

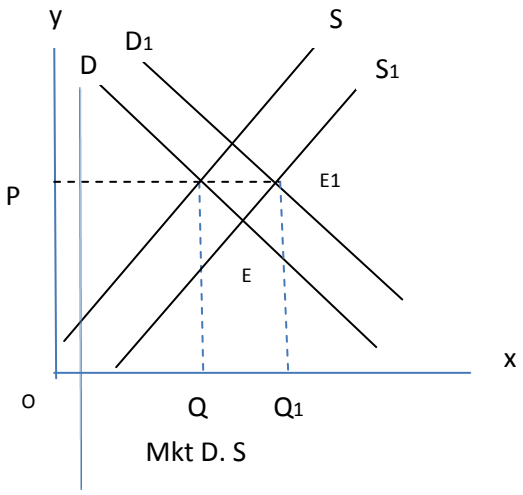
Price (Rs.)	M.D (Units)	M.S (Units)
1	10	2
2	8	4
3	**6**	**6**
4	4	8
5	2	10



Mkt. Demand & Supply

7. 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.

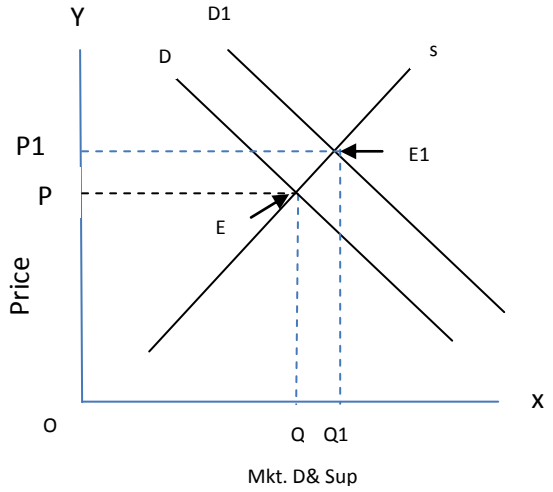


Mkt D. S

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.

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

Ans:- 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

9. How does the equilibrium price of a normal commodity change when income of its buyers falls? Explain the chain effects.

Ans:-

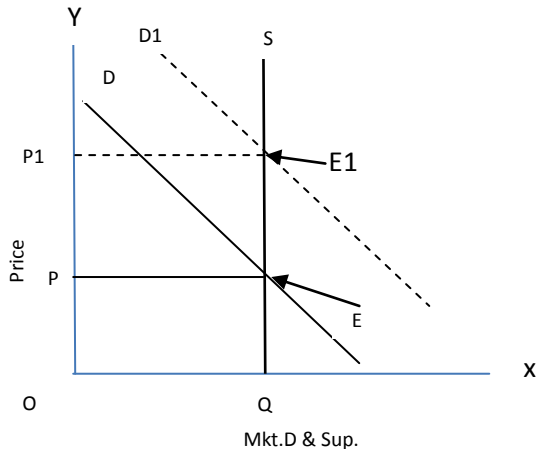
- When income falls demand falls
- Supply remaining unchanged .There is excess supply at a given price
- This leads to competition among sellers to reduce the price.
- As a result demand starts rising and supply starts falling.
- These changes continue till a new equilibrium price is established where demand equal supply.
- Equilibrium price falls.

10. Why is the demand curve facing monopolistically competitive firm likely to be very elastic?

Ans:- It is because the product produced by monopolistically competitive firms are close substitute to each other. If the products are closer substitutes to each other the elasticity of demand is high which makes the firm demand curve is elastic.

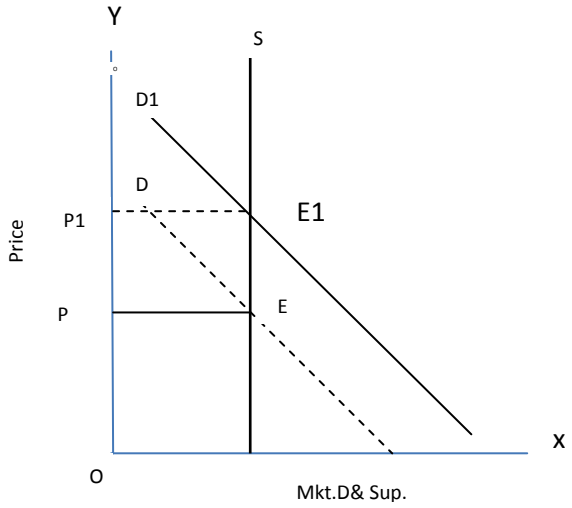
11. Show with the help of diagram the effect on equilibrium price and quantity when supply is perfectly inelastic and demand increases and decreases?

Ans:-



When supply is perfectly inelastic and demand increases. Demand curve shift to towards right. The new demand curve D_1 intersects the supply curve at point E_1.

Result : Price increases from OP to OP_1 and quantity demand remains unchanged.



In the above diagram demand curve shift left wards from D to D_1 Price falls from OP to OP_1 , but quantity remains same.

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

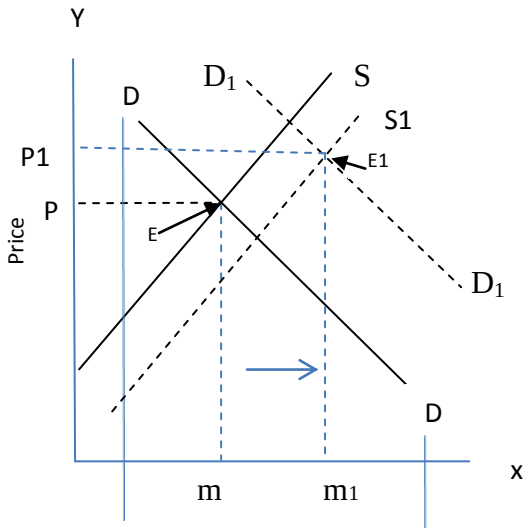
Ans: - If there is free entry and free exit of firms, then no firm can earn abnormal profit in the long run (firm earn zero abnormal profit). Each firm earns just normal profit.

LONG ANSWER QUESTIONS (6 MARKS)

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

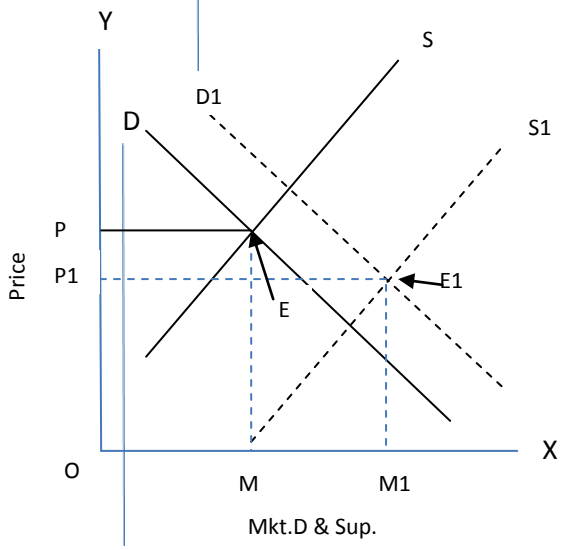
Ans:- There can be 3 situations of a simultaneous right wards shift of supply curves and demand curves.

i) When demand increases more than supply price and quantity both will increase.



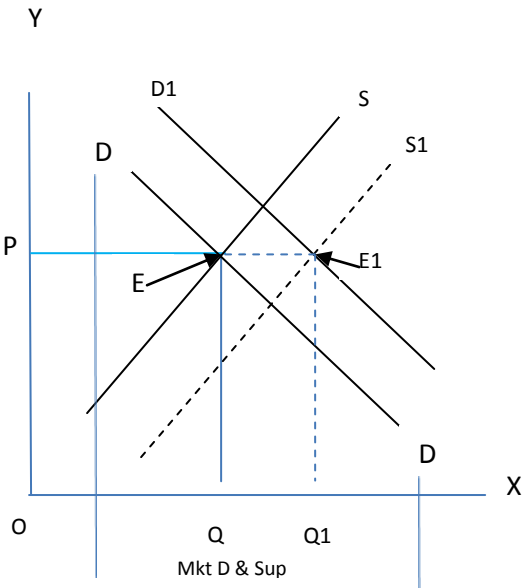
When increase in demand is more than increase in supply price increases from OP to OP1. Quantity increases from OM to OM1. Increase in price is less than increase in quantity.

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 OP1 and quantity demand increases from OM to OM1. Decrease in price is less than increase in quantity.

i) When demand and supply increases equally then equilibrium price remain same.



When increase in demand is equal to increase in supply price remains unchanged at OP. Quantity exchanged increases from OQ to OQ_1.

2. Distinguish between collusive and non-collusive oligopoly. Explain the following features of oligopoly.
   a) Few firms.
   b) Non-price competition.

Ans:- Collusive oligopoly is one in which the firm cooperate with each other in deciding price and output.

Non collusive oligopoly is one in which firms compete with each other.

Few firms: There are few sellers of the commodity and each seller sells a substantial portion of the output of the industry. The number of firm is so small that each seller knows that he can influence the price by his own action and that he can provoke rival firms to react.

Non price competition: The firms are afraid of competition through lowering the price because it may start price war. Therefore they complete through the non price factors like advertising, after sales service etc.

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

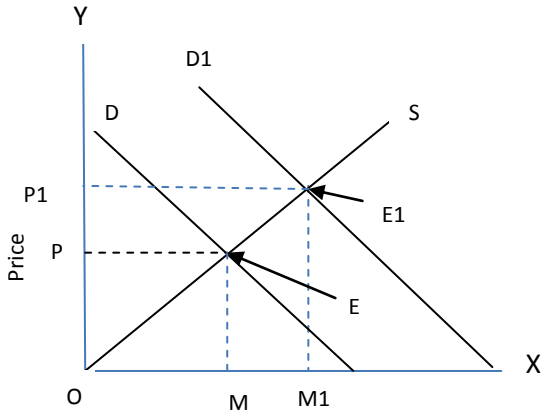
Ans:- Demand and supply schedule

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.

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

Ans:-



Mkt. D & Sup.

- Increase in demand shift the demand curve from D to D_1 to right leading to excess demand E E_1 at the given price OP.
- There will be competition among buyers leading to rise in price.
- As price rise supply starts rising (along S) demand starts falling.
- These changes continues till D=S at a new equilibrium at E_1
- The quantity rises to OM to OM_1 and price rises OP to OP_1

5. Distinguish between monopoly and monopolistic competition.

Ans:- i) Under monopoly there is single seller / producer of the commodity. Whereas under monopolistic competition there are large numbers of sellers, so the firm under monopoly has greater influence over price than under monopolistic competition.

ii) There is freedom of entry of new firms under monopolistic competition where as there is no such freedom under monopoly. As a result a monopolist can earn abnormal profit in the long run.

iii) Under monopolistic competition the product is heterogeneous while under monopoly there is no close substitute of the product.

iv) Demand curve in a monopoly market is less elastic than the demand curve under monopolistic competition because under monopoly there is no close substitute of the product.

HOTS

1. How much loss a firm can bear in the short run?

Ans:- A firm can bear losses up to its total fixed cost in the short run.

2. The firms are earning abnormal profits. Will the number of firms in the industry change?

Ans:- If firms are getting abnormal profit new firms will enter the industry.

3. If firms are making abnormal losses will the number of firms in the industry change?

Ans:- When firms are suffering losses, the number of firms in the industry will decrease as some firms may exit from the industry.

4. Why is demand curve facing a monopolistic competition firm likely to be more elastic?
6. Ans:- In monopolistic competition market the demand curve of a firm is likely to be more elastic, the reason behind this is that all the firm in the industry produce close substitute of each other. If close substitute of any good is available in the market then elasticity of demand is very high because whenever there is a hike in price the consumer will shift to its substitutes. That is why a firm's demand curve under monopolistic competition is more elastic.
5. Explain how the efficiency may increase if two firms merge.

Ans:- i) When two firms merge then there combined efforts and efficiency brings more output to the firm. Increase in the sale of output and economies of scale can be availed. It leads to division of labour and can get advantage of the specialization. Use of better and advanced technology saves the cost of production.

PART B-INTRODUCTORY MACRO ECONOMICS

Unit -6

NATIONAL INCOME AND RELATED AGGREGATES:

KEY CONCEPTS

- Macro Economics: Its meaning
- Consumption goods, capital goods, final goods, intermediate goods, stock and flow, gross investment and depreciation.
- Circular flow of income
- Methods of calculation of national income
- Value added method (product method)
- Expenditure method
- Income method
- Concepts and aggregates related to national income
- Gross national product
- Net National product
- Gross and Net domestic product at market price and at factor cost.
- National disposable income (Gross and net)
- Private income
- Personal income
- Personal disposable income
- Real and Nominal GDP
- GDP and welfare

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.

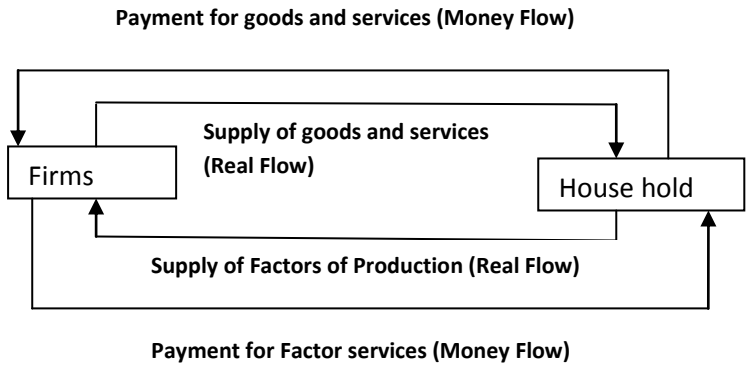
Intermediate goods intermediate goods are those goods, which are used either for resale or for further production. Example for intermediate good is- milk used by a tea shop for selling tea.

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 with in 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 with in 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

- $NNP_{Mp} = GNP_{Mp}$ - depreciation
- $NDP_{Mp} = GDP_{Mp}$ - depreciation
- $NDP_{Fc} = NDP_{Mp}$ – Net indirect taxes (indirect tax – subsidiary)
- $GDP_{Fc} = NDP_{Fc}$ + depreciation
- $NNP_{Fc} = GDP_{Mp}$ - depreciation + Net factor income from abroad – Net indirect taxes
- (NNP_{FC} is the sum total of factor income earned by normal residents of a country during the accounting year)
- $NNP_{Fc} = NDP_{Fc}$ + 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 locates 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 center 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 center 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 (conomic) 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

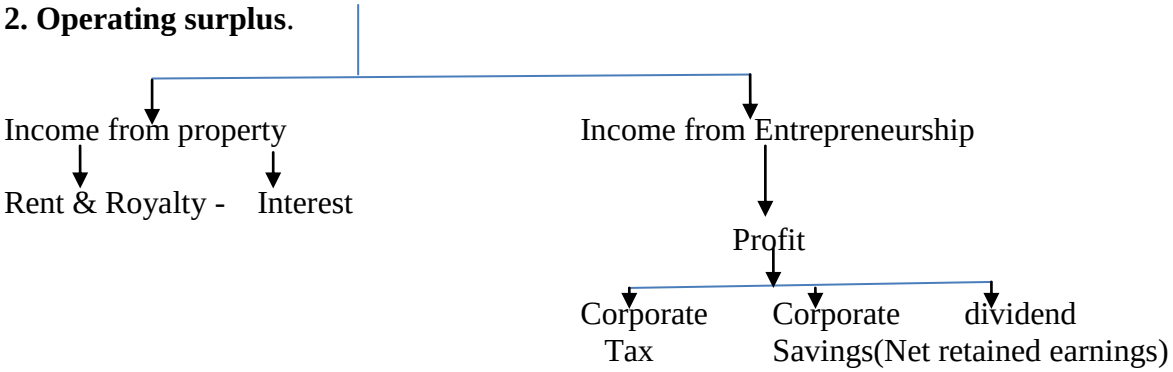
I - PRODUCT METHOD (Value added method):

- 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) = GDPMp (-) consumption of fixed capital (depreciation)

(+) Net factor income from abroad
(-) Net indirect tax.

Income method:

1. **Compensation of employees.**
2. **Operating surplus**.



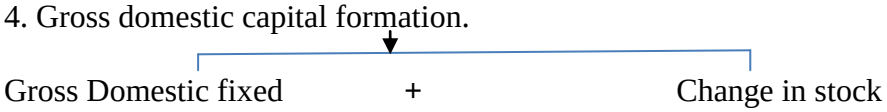
3. **Mixed income of self-employed**.

- NDP_{Fc} = (1) + (2) + (3)
- NNP_{Fc} = NDP_{Fc} (+) Net factor income from abroad
- GNP_{Mp} = NDP_{Fc} + consumption of fixed capital + 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.



GDP_{Mp} = (1) + (2) + (3) + (4)

NNP_{Fc} = GDPMp - consumption of fixed capital + NFIFA- Net indirect taxes

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

National Disposable income	Private Income includes factor income as well as Transfer income (Earned income + Unearned income)	Personal Income
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.* NNP_{FC} + Net Indirect tax + Net current transfer from abroad =Net National disposable income. (Gross National Disposable Income includes depreciation)	*Factor income from net domestic product accruing to private sector includes income from enterprises owned and controlled by the private individual.* *Excludes:-* *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. **Private Income Includes** * 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.	*PI is the income Actually received by the individuals and households from all sources in the form of factor income and current transfers.* Personal income = Private Income (-) corporation tax. (-) Corporate Savings OR Undistributed profits **Personal disposable income** 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
NNP_{Mp} + net current transfers from abroad = 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} = GDPMp + net factor income from abroad – 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.

a) Classify the producing units into industrial sectors like primary, secondary and tertiary sectors.
b) Estimate the net value added at the factor cost.
c) Estimate value of output by sales + change in stock
d) Estimate gross value added by value of output – intermediate consumption
e) Deduct depreciation and net indirect tax from gross value added at market price to arrive at net value added at factor cost = NDP_{Fc}
f) 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

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

c) Take the sum of the factor income by all the industrial sectors to arrive at the NDP_{Fc}

(Which is called domestic income)

d) 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.

a) Classify the economic units incurring final expenditure into distant groups like households, government, firms etc.
b) .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 $GDP_{Mp)}$

c) Deduct depreciation, net indirect taxes to get NDP_{Fc}
d) 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)

a) Avoid double counting of production, take only value added by each production unit.
b) The output produced for self-consumption to be included
c) The sale & purchase of second hand goods should not be included.
d) Value of intermediate consumption should not be included
e) The value of services rendered in sales must be included.

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

a) Income from owner occupied house to be included.
b) Wages & salaries in cash and kind both to be included.
c) Transfer income should not be included
d) 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.

a) Avoid double counting of expenditure by not including expenditure on intermediate product
b) Transfer expenditure not to be included
c) 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 out 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 not 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

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 that real GDP
False. Nominal GDP can be less than the prices in the base 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 nonresidents 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. 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 if 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.

NATIONAL INCOME – NUMERICALS

1. Calculate Value Added at factor cost from the following.

	ITEMS	**Rs. CRORES**
a.	Purchase of raw materials	30
b.	Depreciation	12
c.	Sales	200
d.	Excise tax	20
e.	Opening stock	15
f.	Intermediate consumption	48
g.	Closing stock	10

Ans: Sales + Δ in stock = value of output
200 + (cl. St – op. st)
200 + (10 -15)
= 200 -5=195
Value of output – intermediate consumption
= value added at MP
195-48 = 147
V.A at FC = V.A at MP – Net indirect tax
147 – 20
127 crores

2. Calculate (a) Net National Product at MP, and (b) Gross National Disposable Income

	ITEMS	**Rs. CRORES**
a.	Private final Consumption expenditure	200
b.	Net indirect taxes	20
c.	Change in stocks	(--)15
d.	Net current transfers from abroad	(--)10
e.	Govt. final consumption expenditure	50
f.	Consumption of fixed capital	15
g.	Net domestic capital formation	30
h.	Net factor income from abroad	5
i.	Net imports 10	

Ans: (a) + (e) + (g) + (-i) = NDP_{MP}
200 + 50+ 30 -10
280 -10 = 270 crores
$NNP_{MP} = NDP_{MP} + NFIFA$
270 + 5 = 275
NNP_{MP} + 275 crores

GNDI = NNP_{PC} + NFIFA + Net indirect taxes + Net current transfers from abroad + Depreciation (comp of fixed capital)
NNP_{MP} – net in tax = 275 – 20 =255 crores
GNDI = 255 + 20 + 5 + (-10) + 15
= 295 – 10 = 285 crores
GNDI = 285 crores

3. Calculate Gross Domestic Product at Market Price by
(a) Production Method and (b) Income Method

	ITEMS	**Rs. CRORES**
a.	Intermediate consumption by	
	i) Primary sector	500
	ii) Secondary sector	400
	iii) Tertiary sector	400
b.	Value of output by	
	i) Primary sector	1000
	ii) Secondary sector	900
	iii) Tertiary sector	700
c.	Rent	10
d.	Compensation of employees	400

e.	Mixed income	650
f.	Operating surplus	300
h.	Net factor income from abroad	(--)20
i.	Interest	5
j.	Consumption of fixed capital	40
k.	Net indirect taxes	10

Ans: GDP_{MP} by production method

(b) (i) + (ii) + (iii) – a (i) + (ii) + (iii) = value added

(1000+ 900 + 700) – (500 -400-400)

2600 – 1300 = 1300 crores Value added at MP (GDP_{MP})

Income method

Compensation of employees + operating surplus + mixed income = NDP_{FC}

= 400 + 300 + 650 = 1350 crores

$GDP_{MP} = NDP_{FC}$ + conspn of fixed capital + net In. tax

= 1350 _ 40 + 10

GDP_{MP} =1400

4. Calculate Net National Disposable Income from the following data.

	ITEMS	**Rs. CRORES**
a.	Gross domestic product at MP	1000
b.	Net factor income from abroad	(-) 20
c.	Net indirect taxes	120
d.	Consumption of fixed capital	100
e.	Net current transfers from abroad	50

Ans: NNDI = GDP MP – conspn of fixed capital + Net FIFA + Net current transfer from abroad

= 1000- 100 + 50 + (-20)

= 880 + 50 = 930 crores

5. Calculate Gross National Disposable Income from the following.

	ITEMS	**Rs. CRORES**
a)	National Income	2000
b)	Net current transfers from rest of the world	200
c)	Consumption of fixed capital	100
d)	Net factor income from abroad	(-) 50
e)	Net indirect taxes	25

Ans: GNDI= (a) + (b) +(c) + (e)

= 2000 + 200 + 100 + 250

GNDI = 2550 crores

6. ESTIMATE NATIONAL INCOME BY

(a) EXPENDITURE METHOD (b) INCOME METHOD FROM THE FOLLOWING DATA Rupees in crores

1. Private final consumption expenditure	210
2. Govt: final consumption expenditure	50
3. Net domestic capital formation	40
4. Net exports	(-) 5
5. Wages & Salaries	170
6. Employer’s contribution	10
7. Profit	45

8.	Interest	20
9.	Indirect taxes	30
10.	Subsidies	05
11.	Rent	10
12.	Factor income from abroad	03
13.	Consumption of fixed capital	25
14.	Royalty	15

Ans: National Income (NNP FC)

Expenditure Method

(1) + (2) + (3) + (4) = NDP_{MP}

210 + 50 + 40 + (-5) = 295

NNP FC = NDP MP + factor Income from abroad – net Indirect tax (Indirect tax – subsidy)

295 + 3 – (30 -5)

295 + 3 – 25

= 298 – 25 = 273

NNP FC= 273 crores

Income method:

(5) + (6) + (7) + (8) + (11) + (15)

170 + 10 + 45 + 20 + 10 + 15

= 270 (NDP_{FC})

NDP_{FC} = NDP_{FC} + FIFA

= 270 + 3= 273 crores

(7) FROM THE FOLLOWING DATA CALCULATE

(a) NATIONAL INCOME (b) PERSONAL DISPOSIBLE INCOME.

1.	Profit	500
2.	Rent	200
3.	Private income	2000
4.	Mixed income of self-employed	800
5.	Compensation of employers	1000
6.	Consumption of fixed capital	100
7.	Net factor income from abroad	-(50)
8.	Net retained earnings of private employees'	150
9.	Interest	250
10.	Net exports	200
11.	Co-operation	100
12.	Net indirect tax	160
13.	Direct taxes paid by houses hold's	120
14.	Employers contribution to social security scheme.	60

Ans: NNP FC (N. I) = (5) + (9) + (4) + (1) + (2)

1000 + 250+ 800 + 500 + 200

NDP FC = 2750 crores

NNP FC = NDP FC + (7)

= 2750 + (-50)

NNP Fc = 2700 crores

PDI = (3) – (8) – (11) – (13)

2000 – 150 – 100 -120

PDI = 2000 – 370 = 1630 crores

(8) CALCULATE NATIONAL INCOME AND GROSS NATIONAL DISPOSABLE INCOME FROM THE FOLLOWING DATA.

Net indirect tax	05
Net domestic fixed capital formation	100
Net exports	(-) 20
Gov.: final consumption expenditure	200
Net current transfer from abroad	15
Private final consumption expenditure	600
Change in stock	10
Net factor from abroad	05
Gross domestic fixed capital formation	125

Ans: National Income (NNP_{FC})

= (4) + (6) + (2) + (7) + (3) = NDP_{MP}

= 200 + 600 + 100 + 10 + (-20)

= 910 -20 = 890

NDP_{MP} = 890 crores

$NNP_{FC} = NDP_{MP}$ + (8) – (1)

= 890 + 5 -5

NNP_{FC} = 890

Depreciation = (9) – (2)

125 – 100 = 25 crores

GNDI = NNP_{FC} + Net Indirect Tax + Net Current transfers from abroad + depreciation

= 890 = 05+ 15 + 25

GNDI = 935 crores

(9) CALCULATE NNP AT MARKET PRICE BY PRODUCTION METHOD AND INCOME METHOD

		Crores
1.	Inter mediate consumption	
	(a) primary sector	500
	(b) Secondary sector	400
	(c) tertiary sector	300
2.	Value of output of	
	(a) primary sector	1,000
	(b) Secondary sector	900
	(c) tertiary sector	700
3.	Rent	10
4.	Emoluments of employers	400
5.	Mixed income	650
6.	Operating surplus	300
7.	Net factor income from abroad	-20
8.	Interest	05
9.	Consumptive of fixed capital	40
10.	Net indirect tax	10

Ans: NNP_{MP} by production method

(2) Value of output – (1) Intermediate conspn = value added at MP

(2) a + b+ c – (1) a + b + c

1000 + 900 + 700 – 500 + 400 + 300

2600 – 1200

1400 = GDP_{MP}

$NNP_{MP} = GDP_{MP} – (9) + (7)$
$= 1400 – 40 + (-20)$
$NNP_{MP} = 1340$
Income Method:
$NNP_{MP} = (4) + (5) + (6) + (10) + (7)$
$= 400 + 650 + 300 + 10 + (-20)$
$NNP_{MP} = 1350 + 10 – 20$

(10) CALCULATE GNP at FACTOR COST BY INCOME METHOD AND EXPENDITURE METHOD. **Rupees in crores**

1. Private final consumption expenditure	1000
2. Net domestic capital formation	200
3. Profit	400
4. Compensation of employers	800
5. Rent	250
6. Gov.: final consumption expenditure	500
7. Consumption of fixed capital	60
8. Interest	150
9. Net current transfer from row	(-)80
10. Net factor income from abroad	(-)10
11. Net exports	(-)20
12. Net indirect taxes	80

Ans: GNP FC by Income method
GNP FC = 4 + 3 + 5 + 8 + 10 + 7
800 + 400 +250 + 150 + (-10) + 60
GNP FC = 1650 crores
GNP FC by Expenditure Method
GNP FC = 1 + 2 + 6 + 10 + 11 -12 + 7
= 1000 + 200 + 500 + (-10) + (-20) -80 + 60
= 1700 -110 + 60
GNP FC = 1650 crores

(11) CALCULATE PRIVATE INCOME AND PERSONAL DISPOSABLE INCOME
FROM THE FOLLOWING DATA
. Rupees in crores

1. National income	5050
2. Income from property and entrepreneurship to gov. administrative department	500
3. Saving of non-department public enterprises	100
4. Corporation tax	80
5. Current transfer from govt: administrative depart	200
6. Net factor income from abroad	-50
7. Direct personal tax	150
8. Indirect taxes	220
9. Current transfer from Raw	80
10. Saving of private corporate sector	500

Ans: Private Income = 1 – 2- 3 + 5 + 9
5050 – 500 – 100 + 200 + 80
5430 – 500
Private Income = 4930 crores
PDI = Private Income – 4 -10 -7
4930 -80 -500 -150
PDI = 4200 crores

12) Calculate private income

1. Income from domestic product accruing to private sector	250
2. Net current transfer from raw	40
3Net current transfer from govt: administrative dept	10
4. National debt interest	20
5. Net factor income from abroad	05

Ans: Private Income = 1 + 2+ 3 + 4 + 5
250 + 40 + 10 + 20 + 5
= 325 crores

(13) CALCULATE NET NATIONAL DISPOSABLE INCOME AND PERSONAL INCOME FROM THE FOLLOWING DATA

1. Net indirect taxes	90
2. Compensation of employers	400
3. Personal taxes	100
4. Operating surplus	200
5. Corporation profit tax	80
6. Mixed income of self-employed	500
7. National debt interest	70
8. Saving of non-departmental enterprises	40
9. Current transfer from govt	60
10. Income from property and entrepreneurship to govt administrative Department	30
11. Net current transfer from RAW	20
12. Net factor income from abroad	-50
13. saving of private corporate sector	20

Ans: NDPFC = 2 + 4 + 6
400 + 200 + 500 = 1100 crores
NNDI = NDP FC + 12 + 1 + 11
=1100 + (-50) + 90 + 20
NNDI = 1210 – 50
= 1160 crores

Personal Income

Ans:

Private Income = NDP FC – 8 – 10
1160 -40 – 30=1090 crores
1090 + 7 + 9 +11 +12
1090 + 70 + 60 + 20 + (-50) = 1190 crores
Personal income = Private Income – Corporation Profit Tax – Savings of private corporate sectors
1190 – 80 – 20= 1090 crores

(14) CALCULATE FROM THE FOLLOWING DATA (A) PRIVATE INCOME (B) PERSONAL INCOME (C) PERSONAL DISPOSABLE INCOME.

RS IN CRORES

1. Factor income from NDP accruing to private sector	300
2. Income from entrepreneurship and property	
3. Accruing to govt administrative departmental	70
4. Savings of non-departmental enterprises	60
5. Factor income from abroad	20
6. Consumption of fixed capital	35
7. Current transfer from rest of the world	15
8. Corporation taxes	25
9. Factor income to abroad	30
10. Current transfer from govt governmental admi depart	40
11. Direct taxes paid by house hold	20
12. National dept interest	05
13. saving of private corporate sector	80

Ans Private Income = 1 + 5 + 7 -9 + 10 + 12

300 + 20 + 15 -30 + 40 + 05

Private Income = 350 crores

Personal Income = Private income – 8 – 13

= 350 – 25 – 80

Personal Income = 245 crores

PDI = Personal Income - 11

245 – 20

PDI = 225 crores

15. **From the following data, calculate:**

(a) Gross national Disposable Income

(b) Private Income

(c) Personal Disposable Income

	(Rs. In Crores)
(1) Net national product at factor cost	700
(2) Indirect taxes	60
(3) Subsidies	10
(4) Consumption of fixed capital	40
(5) Income from property and entrepreneurship	
Accruing to government administrative departments	50
(6) Current transfers from rest of the world	45
(7) Profits	100
(8) Direct tax paid by households	50
(9) Savings of private corporate sector	60
(10) Saving of non-departmental enterprises	25
(11) Current transfer from govt: administrative departments	70
(12) A factor income abroad	20
(13) Factor income to abroad	30
(14) Corporation tax	35

Ans GNDI = 1 + 2 -3 + 6 + 4

700 + 60 – 10 + 45 + 40= 805 -10 + 40 GNDI = 835 crores

b) Private Income = 1 – 5 -10 + 6 +11

700 – 50 -25 + 45 +70

Private Income = 740 crores
c) PDI = Private Income – 14 – 9 – 8
740 – 35 – 60 – 50
PDI = 594 crores

16. **Calculate Gross National Disposable Income from the following data:**

	(Rs. In Crores)
(1) National income	2000
(2) Net current transfer from rest of the world	200
(3) Consumption of fixed capital	100
(4) Net factor income from abroad	(-)50
(5) Net indirect taxes	250

Ans: GNDI = 1 + 5 + 2 + 3
2000 + 250 + 200 + 100
GNDI = 2550 crores

17. Calculate Net National Disposable Income from the Following Data:

	(Rs. In Crores)
(1) Gross national product at factor cost	800
(2) Net current transfer from rest of the world	50
(3) Net indirect taxes	70
(4) Consumption of fixed capital	60
(5) Net factor income from abroad	(-)10

Ans: NNDI = 1 + 2 + 3 -4
800 + 50 + 70 -60
= 860 crores

NUMERICALS TO BE CALCULATED BY STUDENTS

1. **Calculate Net National Disposable Income From The Following Data:**

	(Rs. In Crores)
(i) Gross domestic product at market price	1,000
(ii) Net factor income from abroad	(-)20
(iii) Net indirect taxes	120
(iv) Consumption of fixed capital	100
(v) Net current transfer from rest of the world	70

2. **Calculate Gross National Disposable Income The Following Data**:

	(Rs. In Crores)
(i) National income (or NNPfc)	800
(ii) Net indirect taxes	100
(iii) Net factor income from abroad	30
(iv) Net current transfer from rest of the world	50
(v) Consumption of fixed capital	70

3.**Calculate Gross National Disposable Income And net National Disposable Income from the Following Data:**

(Rs. In Crores)

(i) Consumption of fixed capital	30
(ii) Net national product at market price	240
(iii) Net Indirect taxes	40
(iv) Net current transfers from rest of the world	(-)20
(v) Net factor income from abroad	(-) 10

4.**Find Out GNP_{MP}, NDP_{FC} And Gross National Disposable Income.**

(Rs. In Crores)

(i) National income	520
(ii) Net factor income from abroad	10
(iii) Indirect taxes	40
(iv) Subsidies	10
(v) Consumption of fixed capital	50
(vi) Net current transfer received from abroad	20

5.Calculate NNP_{FC}, net National Disposable Income and Gross National Disposable Income from following data: (Rs. In Crores)

(i) GNP_{MP}	1000
(ii) Net Indirect taxes	100
(iii) Net current transfer received from rest of the world	(-)20
(iv) Subsidies	25
(v) Consumption of fixed capital	50
(vi) Net factor income paid to the rest of the world	(-)10

6.**Find Out (a) Personal Income and (b) Personal Disposable Income from following data:**

(Rs. In Crores)

1.Private income	48,800
(ii) Interest on national debit	1,000
(iii) Net factor income from abroad	300
(iv) Corporate Savings	800
(v)) Corporation tax	210
(vi) Personal income tax	540

7.**From The Following Data Calculate:**

Private Income and (b) Personal disposable income.

(Rs. In Crores)

(i) Income from Domestic product accruing to the private sector	4,000
(ii) Savings of non-departmental public enterprises	200
(iii) Current transfer from government administrative departments	150
(iv) Savings of private corporate sector	400
(v) Current transfers from rest of the world	50
(vi) Net factor income from abroad	(-) 4
(vii) Corporation tax	60
(viii) Direct Personal tax	140

8.**Calculate (a) Personal Income (b) Personal Disposable Income from following data**:

	(Rs. In Crores)
(i) Income from property and entrepreneurship accruing to Government administrative department	500
(ii) Savings of non-departmental public enterprises	100
(iii) Corporation tax	80
(iv) Income from Domestic product accruing to the private sector	4,500
(v) Current transfer from government administrative departments	200
(vi) Net factor income from abroad	(-)50
(vii) Direct Personal tax	150
(viii) Indirect taxes	220
(ix) Current transfers from rest of the world	80
(x) Savings of private cooperate scooter	500

9.**From the following data calculate National Income by**
(i) Income method and (ii) Expenditure method.

	(Rs. In Crores)
(i) Compensation of employees	1,200
(ii) Net factor income from abroad	(-)20
(iii) Net indirect taxes	120
(iv) Profit	800
(v) Private final consumption expenditure	2,000
(vi) Net domestic capital formation	770
(vii) Consumption of fixed capital	130
(viii) Rent	400
(ix) Interest	620
(x) Mixed income of self- employed	700
(xi) Net exports	(-)30
(xii) Government final consumption expenditure	1,100

10.**From the following data, calculate Gross national product at Market Price by**
(i) Income method. (ii) Expenditure method:

	(Rs. In Crores)
(i) Mixed income of self-employed	400
(ii) Compensation of employees	500
(iii) Private final consumption expenditure	900
(iv) Net factor income from abroad	(-)20
(v) Net indirect taxes	100
(vi) Consumption of fixed capital	120
(vii) Net domestic capital formation	280
(viii) Net exports	(-)30
(ix) Profits	350
(x) Rent	100
(xi) Interest	150
(xii) Government final consumption expenditure	450

11.**Calculate (a) National Income and (b) Gross National Disposable Income from the following data**

	(Rs. In Crores)
(i) Net factor income from abroad	(-)20
(ii) Government final consumption expenditure	200
(iii) Subsidies	10
(iv) Private final consumption expenditure	800
(v) Net current transfers from the rest of the world	30
(vi) Net domestic fixed capital formation	100
(vii) Indirect taxes	80
(viii) Consumption of fixed capital	40
(ix) Change in stock	(-)10
(x) Net exports	(-)50

12.From the following data, calculate 'gross value added at factor cost'

	(Rs. In Crores)
(i) Sales	500
(ii) Change in stock	30
(iii) Subsidies	40
(iv) Consumption of fixed capital	60
(v) Purchases of intermediate products	350
(vi) Profit	70

13.**From the following data, calculate:**
(a) National income, and (b) Personal disposable income

	(Rs. In Crores)
(i) Compensation of employees	1,200'
(ii) Rent	400
(iii) Profit	800
(iv) Consumption of fixed capital	300
(v) Mixed income of self- employed	1,000
(vi) private income	3,600
(vii) net factor income from abroad	(-)50
(viii) net trained earnings of private enterprises	200
(ix)interest	250
(x) net indirect taxes	350
(xi) net exports	(-)60
(xii) direct taxes paid by households	150
(xiii) corporation tax	100

14. **From the following data calculate national income by**
(a) Income method and (b) Expenditure method.

	(Rs. In cores)
(i) Private final consumption expenditure	2,000
(ii) Net capital formation	400
(iii) Change in stock	50
(iv) Compensation of employees	1,900
(v) Rent	200

(vi) Interest	150
(vii) operating surplus	720
(viii) Net indirect tax	400
(x) Employers' contribution to social security schemes	100
(xi) Net exports	20
(xii) Net factor income from aboard	(-)20
(xii) Government final consumption expenditure	600
(xvi) Consumption of fixed capital	100

15. Find gross national product at market price by income method and expenditure method.

	ITEMS	**Rs. CRORES**
a.	Mixed income of the self-employed	400
b.	Compensation of employees	500
c.	Private final consumption expenditure	900
d.	Net factor income from abroad	(--)20
e.	Net indirect taxes	100
f.	Consumption of fixed capital	120
g.	Net domestic capital formation	280
h.	Net exports	(--) 30
i.	Rent	100
j.	Interest	150
k.	Government final consumption expenditure	450

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:-

i) Medium of Exchange: - It can be used in making payments for all transactions of goods and services.

ii) 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:-

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

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

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

b) Money has the merit of general acceptability.

c) Money is more durable compare to other commodity.

ii) Store of value: Money can be stored and does not lose value

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

a) It is easy and economical to store.

b) Money has the merit of general acceptability.

c) Value of money remains relatively constant

MONEY HAS OVER COME 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=currency held by public + Demand deposits + other deposits with Reserve Bank of India.

M2=M1+saving deposits with post office saving bank

M3=M1+net time deposit with the bank

M4=M3 + total deposits with post office saving bank excluding national saving certificate

HIGH POWERED MONEY:

Refers to, currency with the public (notes +coins) and cash reserve of banks.

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/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.

a) All depositors do not withdraw the money at the same time.
b) 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:

i) 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:

   a) Uniformity in note circulation
   b) Better supervision and control
   c) It is easy to control credit
   d) Ensures public faith
   e) Stabilization of internal and external value of currency

ii) 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.

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

   a) Custodian of cash reserves:- Commercial banks must keep a certain proportion of cash reserves with the central bank (CRR)
   b) Lender of last resort: - When commercial banks fail to need their financial requirements from other sources, they approach Central Bank which gives loans and advances.
   c) 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.

iv) 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.

v) 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:

i) 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.

Central Bank increases the bank rate during inflation (excess demand) and reduces the same in times of deflation (deficient demand)

ii) Open Market Operations: It refers to the buying and selling of securities by the Central Bank from/ to the public and commercial banks.

It sells government securities during inflation/excess demand and buys the securities during deflation/deficient demand.

iii) Legal Reserve Ratio: R.B.I. can influence the credit creation power of commercial banks by making changes in CRR and SLR

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.

Reserve Bank increases CRR during inflation and decreases the same during deflation

Statutory Liquidity Ratio (SLR): It refers to minimum percentage of net demand and time liabilities which commercial banks required to maintain with themselves.

SLR is increased during inflation or excess demand and decreased during deflation or deficient demand.

QUALITATIVE INSTRUMENTS:

1. 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.

2. 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.

3. 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/LRR which is equal to 1/0.1=10

   Initial deposit Rs. 500 crores

   Total deposit = Initial deposit x money multiplier

   = 500 x 10 = 5000 crores.

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

   Ans: Money multiplier = 1/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/LRR = 8=1/LRR.

   LRR = 1.25 or 12.5

Unit-8

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.

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.

1. C=F(Y).

- Consumption function may be represented by an equation.

  C=a+b(Y) (a can be also be written as c)

C=consumption, a =consumption at zero level of income=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=ΔC/ΔY.
- 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.
  A. Average propensity to save (APC)
  B. 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=ΔS/ΔY.
- 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=400CRORES.

- 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) =Δy/ΔI.
- 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=ΔC/ΔY
- MPS=ΔS/ΔY
- MPS+MPC=1 AND 1-MPC=MPS
- K=ΔY/ΔC or K=1/MPS or K=I/I-MPC
- C= ~c+b(Y)
- S=-a+(1-b)Y

-a= negative saving

(1-b)=MPS

SHORT RUN FIXED PRICE ANALYSIS

Basic Concept

Autonomous consumption: The consumption which is not depends 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.

Assumption

1) Fixed Price :

In the short period price is fixed (constant) and elasticity of supply is infinite i.e., supply curve is perfectly elastic. It means the suppliers are willing to supply whatever amount of goods, consumer will demand at that price.

2) Fixed Interest Rate :

Interest rate remains constant.

3) Aggregate supply is perfectly elastic at this price.

Under these circumstances equilibrium output will be determined by aggregate demand at this price in the economy. At a fixed price the value of ex-ante aggregate demand for final goods is the sum of ex-ante consumption expenditure C and ex-ante investment expenditure I on final goods.

AD=C+I

Consumption function $C = \bar{c} + b(Y)$

C = Autonomous consumption

Shows marginal propensity to consume due to unit increase in income

In the short period price and rate of interest remaining constant i.e., ex-ante Investment expenditure is uniform / same amount every year.

$I = I$

Effective demand I = Autonomous Expenditure we also assume that Aggregate Supply at this cost price is determined by aggregate demand this is known as Effective demand principle. The level of AD required to achieve full employment equilibrium is called effective demand. (or) AD at the point of equilibrium is called Effective demand.

AD = C+I (By substituting the value of C+I)

$\bar{\bar{}}$ $\bar{\bar{}}$

$AD = C + I + by$

When final good market is in equilibrium quantity demanded = quantity supply

AD = AS

$\bar{\bar{}}$ $\bar{\bar{}}$

$Y = C + I + by$

$\bar{\bar{}}$ $\bar{\bar{}}$ $\bar{\bar{}}$ $\bar{\bar{}}$

$Y = A + by$ ($A = C + I$ showing total autonomous expenditure

$\bar{\bar{}}$

$Y - by = A$

$\bar{\bar{}}$

$Y (1 - b) = A$

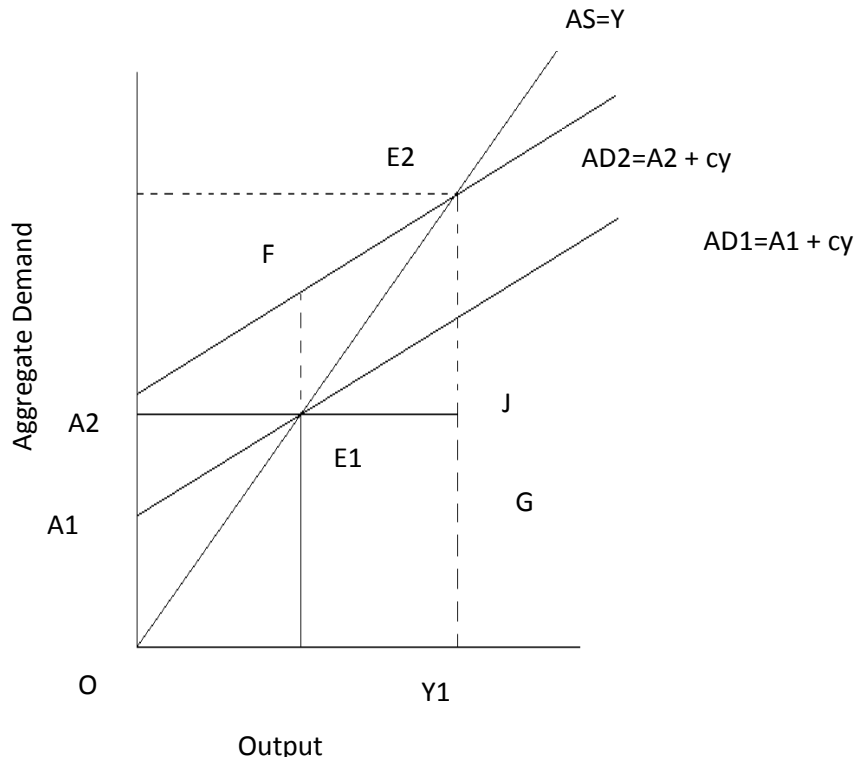
$\bar{\bar{}}$

$Y = A / 1 - b$

$\bar{A}$ $\bar{\bar{}}$ $\bar{\bar{}}$ $\bar{}$

Y depends upon $\bar{A}$ ($\bar{C}$ (or) $\bar{I}$) or MPC.

Effects of an autonomous change on equilibrium in the product market.



The line AD1 and AD2 correspond to the values of A, via A1 and A2 respectively

AS is the 45° line is equal to one (tan 45° = 01)

- The 45° line represents point at which AD and output are equal.
  The AD1 line intersects the 45° line at point E1.
  At equilibrium point the equilibrium values of output and aggregate demand are OY1 and AD1.
  When autonomous investment increases the AD1 line shifts upwards and assumes the position AD2.
  The value of aggregate demand at output OY1 is Y1F which is greater than the value of output OY1 = Y1E1 by an amount E1F
- E1F measures the amount of excess demand that emerges in the economy as a result of the increase in autonomous expenditure: The new AD2 intersects the 45° line at point E2 at the new equilibrium output and AD2 have increased by an amount E2G which is greater than the initial increment in autonomous expenditure E1F.

<u>1 MARK QUESTIONS</u>

1. What is the relation between APC and APS?
   Ans. APC+APS=1
2. What is the relation between MPC and MPS?
   Ans. MPS+MPC=1.
3. If APC is 0.7 then how much will be APS?
   Ans. 1-0.7=0.3
4. If MPC =0.75, what will be MPS?
   Ans. MPC+MPS=1
   1-0.75=0.25

5. State the important factor influencing the propensity to consume in an economy?
   Ans. The level of income (Y) Influences the propensity to consume (c) of an economy.
6. What is meant by investment?
   Ans. Investment means addition to the stock of capital good, in the nature of structures, equipment or inventory.
7. What is the investment demand function?
   Ans. The relationship between investment demand and the rate of interest is called investment demand function.
8. What is equilibrium income?
   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.
   Ans. K=1/1-MPC
10. What can be the minimum value of investment multiplier?
    Ans. One.
11. What is the maximum value of investment multiplier?
    Ans. Infinity.
12. Give the equation of propensity to consume.
    Ans. C=a+by.

13. Write down the equation of saving function?
    Ans. S= -a+ (1-b) y.

3AND 4 MARKS QUESTIONS.

1. Explain the components of equation c= 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=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
   SINCE C=a+bY.
   THEREFORE,
   S=Y-(a+bY)
   S= -a+(1-b)Y (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 dis saving, 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 s=y-c
   1000-12000=-200
   APS=-200/1000=0.2 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 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×I000=800
2.	-	800	4/5×800=640
3.	-	640	4/5×640=512
4.	-	512	4/5×512=409.6
↓∞	↓∞	↓∞	↓∞
	TOTAL	5000	4000

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:

$\Delta y=1000+800=640+512+$…….infinity.

$1000+4/5\times1000(4/5)^2\times1000+(4/5)^3\times1ooo+$……..infinity

$=1000[1+4/5+ (4/5)^2+(4/5)^3+$……infinity]

$=1000[1/1-4/5] = 1000\times5/1$=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.

6MARKS 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

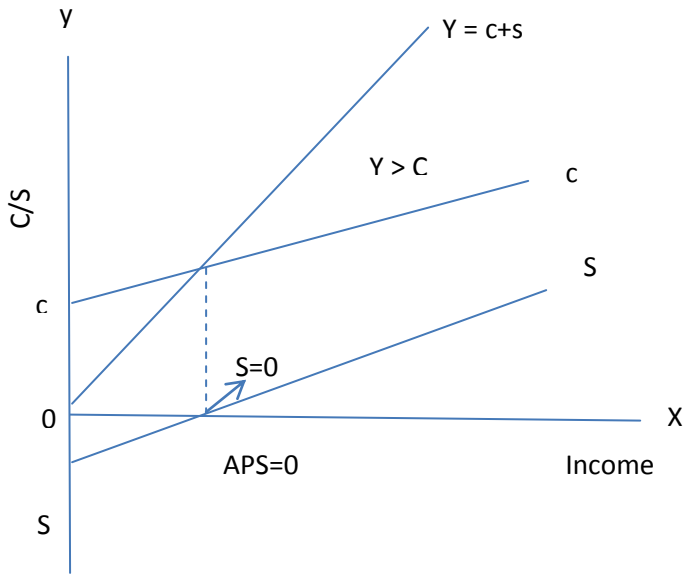
Propensity to save curve

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 AS=Y (refers to countries 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.

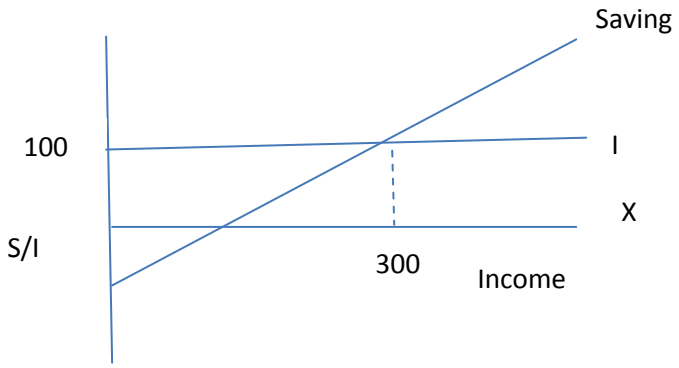
y	c	I	AD=C+I	AS=Y	
0	50	100	150	0	
100	100	100	200	100	
200	150	100	250	200	
300	200	100	300	300	AD=AS
400	250	100	350	400	
500	300	100	400	500	

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

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

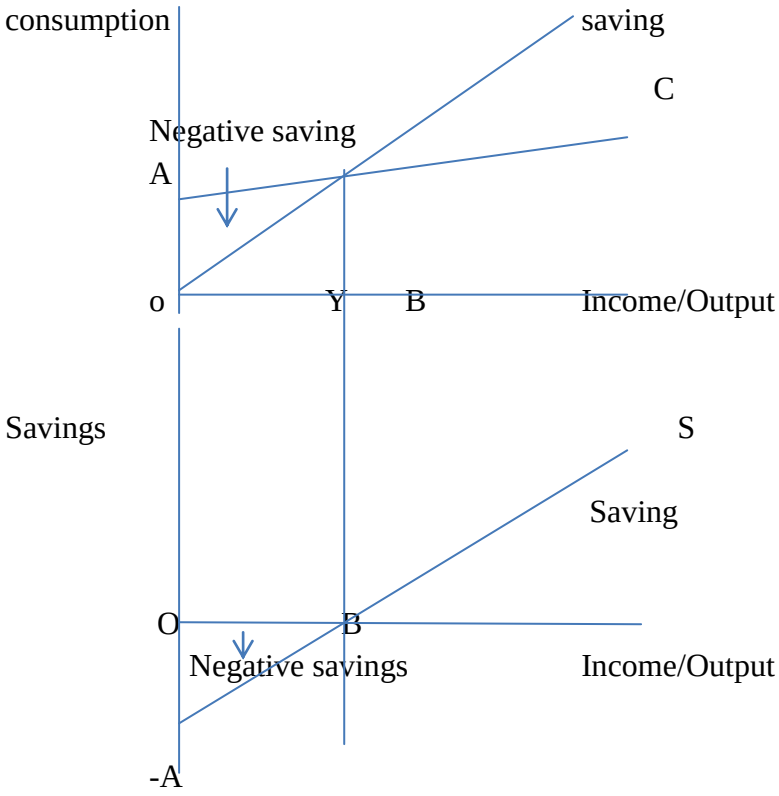
Ans. Equilibrium is achieved when planned saving is equal to planned investment that is S=I. This can be seen with the help of schedule and a diagram.

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 s 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.

2. Draw a straight line consumption curve. From it derive a saving curve explaining the process. Show on the diagram.
   a) The level of income at which average propensity to consume equal to one.
   b) 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 -0A.

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.

a) The level of income at which APC is equal to one is OB.
b) A level of income at which APS is negative OY.

NUMERICALS.

1. If in an economy investment increases by Rs 1000 cores to Rs 1200 cores and as a result total income increases by 800 cores calculate capital MPS.

   Ans.Δ I=1200-1000=200

   ΔY=800

   $\Delta K=\Delta Y/\Delta I=800/200=4$

   K=1/MPS=4

   MPS=1/4=0.25

   MPS=0.25

2. IF in an economy the actual level of income is Rs 500crores whereas the full employment the level of income is RS 800 cores. The MPC=0.75 calculate the increase in investment required to achieve full employment income.

   Actual income=Rs500 cores

   Full empl Income = Rs 800 cores

   Δ y = 800 -500 = 300 cores

   $MPC = 0.75 = \frac{75}{100} = \frac{3}{4}$

   $K = \frac{1}{01\text{-}MPC} = \frac{1}{1 - 0.75} = \frac{1}{0.25} = \frac{100}{25} = 4$

   We know that $\Delta y = K.\ \Delta I$

   $300 = 4 \times 4\ I$

   $\Delta I = 75$ crores

3. Calculation of APC and MPC given the level of Income and Consumption

Income	consumption	APC = c/y	MPC = Δc/Δy
0	4	-	-
10	12	1.20	0.80
20	20	1.00	0.80
30	28	0.93	0.80
40	36	0.90	0.80

4. Calculation of APS and MPS given the level of Income and consumption

Income (Rs in crores)	consumption (Rs in crores)	saving	APS	MPS
0	4	-4	-	-
10	12	-2	-0.20	0.20
20	20	0	0.00	0.20
30	28	2	0.07	0.20
40	36	4	0.10	0.20

Clue: APS = s/y MPS = $\Delta s/\Delta y$ S=Y – C

5.Suppose the consumption equals c= 40 + 0.75 y, Investment equals I = Rs 60 and Y= C + I. Find i) Equilibrium level of income ii) The level of consumption at equilibrium iii) level of saving at equilibrium

Ans: i) Y= C + I AS = AD

Substituiting the value of c and I we get

Y = 40 + 0.75y + 60 Y= C+ I I=60

(Y-0.75y)= 100 AS =AD C= 40 + 0.75y).25 Y = 100

Y= 100 = 10000

------- --------- = 400

0.25 25

Y = 400 Equilibrium level of Income

ii) Given c= 40 + 0.757

Y = 400

C= 40 + 0.75(400) = 340

C=340

iii) Y= C + S So S= Y-C

S= 400 -340 = 60

S= 60 crores

6. In a two sector economy, the saving and investment functions are:

S= -10 + 0.2Y I = -3 + 0.1Y

What will be the equilibrium level of income?

Ans: Equilibrium level of income S= I

-10 = 0.2y = -3 + 0.1y

0.2y – 0.1y = -3 = 10

0.1y =7 = y = 70

7. Explain the components of the equation c= 20 + 0.90 y and construct a schedule for consumption where income is Rs 200 , Rs 300 , Rs 350 and Rs 400.

Components of equation c=20 + 0.90y explained in ¾ mark question number 1

The schedule for consumption is as follows

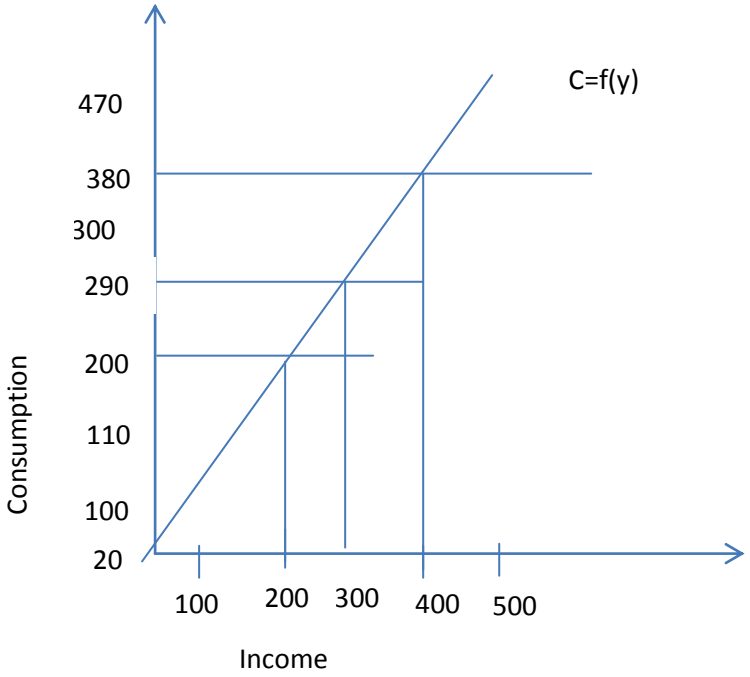
Y (Income)	c=20 + 0.90y	
200	200	c= 20 + 0.9 × 200
250	245	=20 + 180 = 200
300	290	c= 20 + 0.9 ×250
350	335	= 20 + 225 = 245
400	380	c= 20 + 0.9 × 300 = 290
		C= 20 + 0.9 × 350 + 335
		C= 20 + 0.9 × 400 = 380

8.The consumption function is C= 20 + 0.9y. The value of Income is given as 100,200, 300, 400 and 500. Find out the consumption schedule and draw the consumption curve.

The consumption schedule

Y (Income)	C = 20 + 0.9 Y
0	C=20
100	C=20 + 0.9 (100) = 110
200	C=20 + 0.9 (200) = 200
300	C=20 + 0.9 (300) = 290
400	C=20 + 0.9 (400) = 380
500	C=20 + 0.9 (500) = 470

The consumption curve is shown as



10. How is equilibrium output of final goods determined under short run fixed price

Under short run fixed price, equilibrium output and equilibrium demand at fixed price and constant rate of interest can be found with the help of following formulas

$$\bar{Y} = \frac{A}{1 - b}$$

Y = Value of equilibrium output

$\bar{A}$ = Total Autonomous consumption

B= MPC

Thus, value of equilibrium output (y) depends on values of $\bar{A}$ (i.e, $\bar{c}$ + I) and b

i.e AD = AS

$$Y = \bar{C} + \bar{I} + by$$

$\bar{Y} = A + \bar{b}y$ ($A = C + I$ showing total autonomous expenditure)

$$\bar{Y} - by = A$$

$$\bar{Y}(1-b) = A$$

$$Y = \frac{\bar{A}}{1-b}$$

Application level questions

Multiplier

1. In an economy an increase in investment leads to increase in national income which is three times more than the increase in investment (calculate marginal propensity to consume)

2. In an economy the MPC is 0.95 investment is increased by Rs. 100 crores. Calculate the total increase in income and consumption expenditure
3. Explain with numerical example how an increase in investment in an economy affects the level of consumption.

4. An increase in investment leads to total rise in national income by Rs. 500 crores. If MPC is 0.9 what is the increase in investment? Calculate.

5. In an economy the MPC is 0.8 Investment is increased by Rs.500 crores.

   Calculate the total increase in income and consumption expenditure.

6. If in an economy MPC is 0.75 and its investment is increased by Rs.500 crores.

   Calculate the total increase in income and consumption expenditure

7. Compete the table

Income	MPC	Saving	APS
0	-	-90	-
100	0.6	-	-
200	0.6	-	-
300	0.6	-	-

8. In an economy S= -50 +0.5Y is the saving function (where S=saving and Y=national income) and investment expenditure is 7000. Calculate
   (i) Equilibrium level of national income
   (ii) Consumption expenditure at Equilibrium level of N.I

9. From the following information about an economy calculate

   (i) its Equilibrium level of national income and

   (ii) saving at Equilibrium level of N.I

   Consumption function = 200 + 0.9Y

   Investment expenditure I=3000.

10. Disposable income is Rs.1000 crores and consumption expenditure is Rs.750 crores.

    Find out average propensity to save and average represent to consume.

11 In an economy investment expenditure increased by Rs.700 crores. The marginal propensity to consume is 0.9 calculate total increase income and consumption expenditure

12. Complete the following table

Level of income	**Consumption Expenditure**	**Marginal Propensity**	**Marginal Propensity to consume**
400	240		
600	320		
700	465		

13. In an economy an increase in investment leads to increase in national income which is three times more than the increase in investment calculate marginal propensity to consume.

14. The disposable income is Rs.2500 crores and saving is Rs.500 crores find out average propensity to consume

15. In an economy MPC is 0.75 if investment expenditure is increased by Rs.500 crores calculate the total increase in income and consumption expenditure

16. Complete the following table

17. As a result of increase investment by 125 crores national income increased by 500 crores calculate multiplies, MPC and MPS

18. Given consumption function C=100+.75 Y (where C=consumption expenditure and Y=national income) and investment expenditure Rs.2000 .calculate
(i) Equilibrium level of national income
(ii) Consumption expenditure at equilibrium level of income

19. In an economy S= -50+0.5Y is the saving function (where S=saving and Y=national income) and investment expenditure is 9000 calculate
(i) Equilibrium level of national income
(ii) Consumption of expenditure at equilibrium level of national income

20. From the following information about an economy calculate (i) Equilibrium level of N.I (ii) saving at Equilibrium level of income consumption function C=200+0.9Y (where C=consumption expenditure and Y=N.I. Investment expenditure I =5000

21. C=100+0.75 is a consumption function (where C= consumption expenditure and Y= N.I) and investment expenditures =1600 on the basis of this information calculate
(i) Equilibrium level of national income
(ii) Saving at Equilibrium level of N.I

22. Given below is the consumption function in an economy C=100+0.10Y with the help of a numerical example show that in this economy as income increase APC will decrease

23. Given below is the consumption function in an economy C=100 +0.5Y with the help of a numerical example show that in this economy as income increases APS will increase.

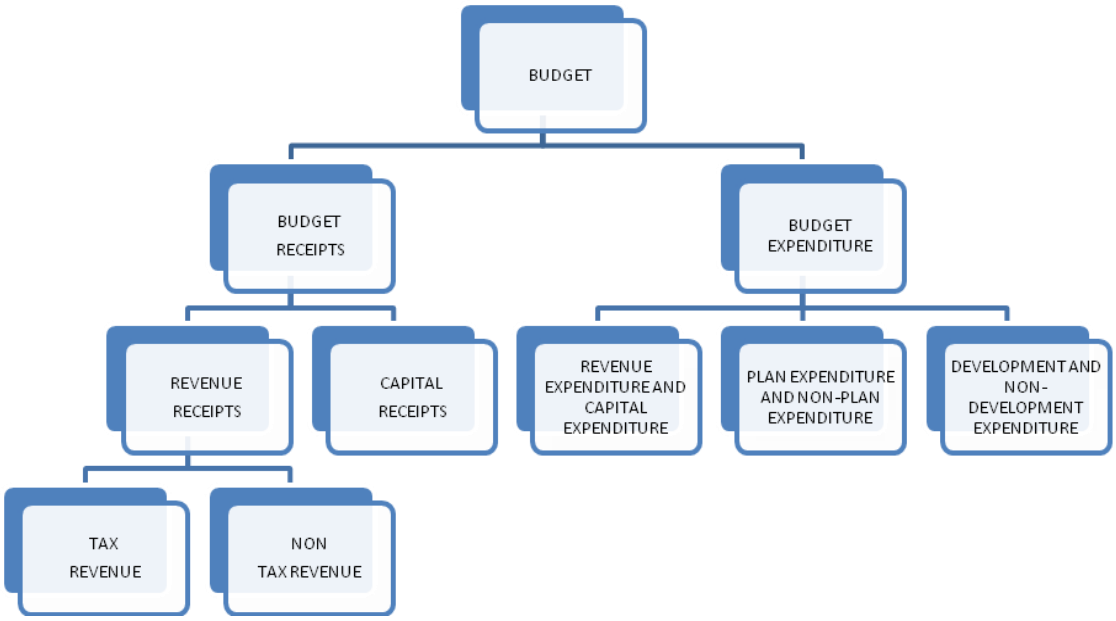
UNIT 9

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

GOVERNMENT BUDGET – A FLOW CHART



01 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
   ii) Capital Budget
3. What are the two Budget Receipts?
   Ans: i) Revenue Receipts
   ii) Capital Receipts
4. Name the two types of Revenue Receipts.
   Ans: i) Tax Revenue
   ii) 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)

   b) Borrowings by the Government

   c) Loans received from foreign governments and International financial Institutions.

7. Give two examples of Developmental Expenditure.

   Ans: Plan expenditure of Railways and Posts

8. Give two examples of Non-Developmental expenditures.

   Ans: i) Expenditure on defence

   ii) Interest payments

9. Define Surplus Budget.

   Ans: A Surplus Budget is one where the estimated revenues are greater than the

   Estimated expenditures.

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

    Ans: a) Budget Deficit

    b) Revenue Deficit

    c) Primary Deficit and

    d) Fiscal Deficit

<u>03 AND 04 MARK QUESTIONS AND ANSWERS</u>

1. Explain the objectives of the Government Budget.
   Ans: These below are the main objectives of the Government Budget.
   a) <u>Activities to secure reallocation of resources:</u> - The Government has to reallocate resources with social and economic considerations.
   b) <u>Redistributive Activities</u>: - The Government redistributes income and wealth to reduce inequalities.
   c) <u>Stabilizing Activities</u>: - The Government tries to prevent business fluctuations and maintain economic stability.

d) <u>Management of Public Enterprises</u>: - 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---

a) Budget Receipts

b) Budget Expenditure

Budget receipts may be classified as----

i) Revenue Receipts and

ii) Capital Receipts

Revenue Receipts may be classified as____

i) Tax Revenue and

ii) Non-tax Revenue

Budget Expenditure may be classified as -------

a) Revenue Expenditure and Capital Expenditure

b) Plan Expenditure and Non-Plan Expenditure

c) Developmental and Non-Developmental Expenditure

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

i) 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.

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

***ii)* 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.**

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:

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

b) Interest and dividends

c) 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----

a) Revenue Expenditure and Capital Expenditure

b) Plan Expenditure and Non-Plan Expenditure

c) 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.,

   iii) *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. **Define Balanced, Surplus and Deficit Budgets.**

   Ans: a) *Balanced Budget*:- It is one where the estimated revenue *EQUALS* the estimated expenditure.

   b) *Surplus Budget*:- It is one where the estimated revenue is *GREATER THAN* the estimated expenditures.

   c) *Deficit Budget*:- It is one where the estimated revenue is *LESS THAN* the estimated expenditure.

8. **Explain the four different concepts of Budget deficit.**

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

   a) ***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

   b) ***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.

   c) ***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.**

   d) ***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.**

06 MARK QUESATIONS AND ANSWERS

1. **How is tax revenue different from administrative revenue?**

   Ans:

   a) ***Tax Revenue*:-**

      ***i)* It is the main source of revenue of the government**

      ***ii)* It is the revenue that arises on account of taxes levied by the government.**

      ***iii)* Taxes of two types i.e., Direct and Indirect.**

iv) **Direct taxes are those taxes levied immediately on the property and income of persons. Examples: Income Tax, Corporate Tax, Wealth Tax etc.,**

v) **Indirect taxes are those taxes levied on the production and sale of the goods. Examples: Sales Tax, Excise Duty etc.,**

b) *Administrative Revenue*:-

i) It is the revenue that arises on account of the administrative function of the Government.

ii) It includes-------

a) Fees

b) License fees

c) Fines and penalties

d) Forfeitures of surety by courts

e) Escheat – means claim of the government on the property of a person who dies without having any legal heirs.

2. What is a balanced government budget? Explain the multiplier effect of a balanced budget.

Ans:

a) *Balanced Budget*: - It is one where the estimated revenue of the government equals the estimated expenditure.

b) *Effect of Multiplier on the Balanced Budget*:-

i) If only source of revenue is a lump sum tax, a balanced budget will then mean that the amount of tax equals the amount of expenditure (T=E)

ii) A balanced budget has an expansionary effect on the economy.

iii) Under balanced budget, the increase in income is equalent to the amount of government expenditure financed by tax revenue (i.e., $\Delta Y = \Delta G/\Delta T$)

iv) The multiplier effect of a balanced budget is ONE (Unitary)

v) A balanced budget is a good policy to bring the economy, which is under employment to a full employment equilibrium.

HIGHER ORDER THINKING SKILLS (HOTS)

1. What are the three levels at which the budget impacts the economy?

Ans: These below are the three levels at which the budget impacts the economy.

a) *Aggregate fiscal discipline*:- This means having control over expenditures, given the quantum of revenues. This is necessary for proper macro-economic performance.

b) *Allocation of resources*: - The allocation of resources based on social priorities.

c) *Effective and efficient provision of programmes:-* Effectiveness measures the extent to which goods and services the government provides its goals.

NUMERICALS

1. The following figures are based on budget estimates of Government of India for the year
   2001 – 2002. Calculate i) Fiscal Deficit ii) Revenue Deficit and iii) Primary deficit.

ITEMS	RS. BILLIONS
A) Revenue receipts	2,31,745
i) Tax Revenue	1,63,031
ii) Non-tax Revenue	68,714
B) Capital receipts	1,43,478
i) Recoveries of loans	15,164
ii) Other receipts	12,000
iii) Borrowings and other liabilities	1,16,314
C) Revenue expenditure	3,10,566
i) Interest payments	1,12,300
ii) Major subsidies	27,845
iii) Defence Expenditure	1,70,421
D) Capital Expenditure	64,657
E) Total Expenditure	3,75,223
i) Plan expenditure	1,00,100
ii) Non-plan expenditure	2,75,123

i) Ans: Fiscal Deficit = Total expenditure – Revenue receipts – Non-debt capital receipts = 3,75,223 – 2,31,745 – 15,164 – 12,000 = Rs. 1,16,314 billion.

ii) Revenue Deficit = Revenue expenditure – Revenue receipts
= 3, 10,566 – 2, 31,745 = Rs. 78,821 billion.

iii) Primary deficit = Fiscal deficit – Interest payments
= 1, 16,314 – 1, 12,300 = Rs. 4,014 billion.

2. From the following data about a government budget find
   a) Revenue Deficit b) Fiscal Deficit and c) Primary Deficit.

S.No.	Items	Rs. (cr.)
01	Tax revenue	47
02	Capital receipts	34
03	Non-tax revenue	10
04	Borrowings	32
05	Revenue expenditure	80
06	Interest payments	20

Ans: a) Revenue Deficit = Revenue expenditure – (Tax revenue + Non-tax revenue)
= 80 – (47+10) = 80 – 57 = 23 (cr.)
Fiscal Deficit = Borrowings = 32 (cr.)
Primary Deficit = Borrowings – Interest Payments 32 - 20 = 12 (cr.)

UNIT – 10

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:

1. Transfer function: It transfers the purchasing power between countries.
2. Credit function: It provides credit channels for foreign trade
3. 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 AND SUPPLY FOR 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.

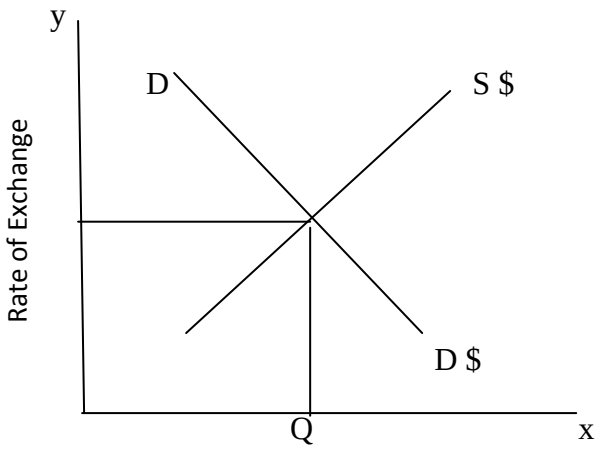
Supply of foreign exchange:

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.



Demand and supply of US$

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.

1) Errors and Omissions: They may arise due to the presence of sampling and due to his honesty.
2) 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.

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

III 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. Define Spot exchange rate.

Ans: The spot exchange rate refers to the rate at which foreign currencies are available on the sport.

8. Define forward market.

Ans: Market for foreign exchange for future delivery is known as the forward market.

9. 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.

10. 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.

11. 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)

= 1000- (-600)

= Rs. 1600.

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

Ans:- Balance of trade

13. What do you mean by disequilibrium in BOP?

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

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

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

15. Which transactions bring balance in the BOP account?

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

16. 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.

17. 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.

18. When does a situation of deficit in BOP arises?

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

19. 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.

20. What is meant by dirty floating?

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

<u>ANSWER QUESTIONS (3 / 4 MARKS)</u>

1. Why is foreign exchange demanded?

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

a) Payment of International loans
b) Gifts and grants to rest of the world
c) Investment in rest of the world.
d) 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.

a) Purchases of domestic goods by the foreigners

b) Direct foreign investment and portfolio investment in the home country.

c) Speculative purchase of foreign exchange.

d) When foreign tourists come to India.

3. Why does the demand for foreign exchange rise, when it 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 inverse relationship between price and demand for foreign exchange.

4. When price of a foreign currency falls, the supply of that foreign currency also fall 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 under taken 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.

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.

Sample Question Paper -1

BLUE PRINT

ECONOMICS - Class XII

Weightage by Type of Question

Sl.	Forms of	Very Short	Short	Long	Total
1	Unit 1	1(1)	3(1)	--	4
2	Unit 2	1(2)	3(2), 4(1)	6(1)	18
3	Unit 3	3(1)	3(1), 4(2)	6(1)	18
4	Unit 4	1(1)	3(1)	6(1)	10
5	Unit 5	Not to be tested			
6	Unit 6	--	3(3)	6(1)	15
7	Unit 7	1(2)	--	6(1)	08
8	Unit 8	1(2)	4(1)	6(1)	12
9	Unit 9	--	4(2)	--	08
10	Unit 10	1(1)	3(2)	--	07
	Sub Total	10(10)	30(10), 24(6)	36(6)	100

Type	No. of Questions	Marks	Total	Estimated Time a candidate is expected to take
Long Answer	6	6	36	60 Minutes
Short Answer	6	4	24	36 Minutes
Short Answer	10	3	30	50 Minutes
Very Short	10	1	10	15 Minutes

Difficulty Level of the Question Paper

Level	Marks	%age of the Total
Easy	30	30
Avearge	50	50
Difficult	20	20

Sample Question Paper -1

ECONOMICS - Class XII

Maximum Marks: 100 **Time : 3 Hour**

General instructions:-

1. Q. No. 1 to Q. No. 5 & 17 TO 21 are very short answer type carrying 1 mark each. Answer these questions in one sentence only.
2. Q.No. 6 to 10 & Q.No. 22 to 26 are short answer type carrying 3 marks each. Answer to them should not normally exceed 60 words each.
3. Q.No. 11 to 13 & Q.No. 27 to 29 are short answer type carrying 4 marks each. Answer to them should not normally exceed 70 words each.
4. Q No. 14 to 16 & Q. No. 30 to 32 are long answer type carrying 6 marks each. Answer to them should not normally exceed 100 words each.
5. There is no words limitation for numerical questions

1.What happens to total utility when marginal utility is negative? (1)

2. Why is the PPC concave to origin? (1)

3.How many firms are there in Monopoly Market? (1)

4.When demand for a good rise due to rise in price of substitute goods? What is such a change in demand called? (1)

5.What is meant by Fixed Cost? (1)

6.A lot of people died and many factories are destroyed because of a severe earthquake in a country. How will it affect the country's PPC. (3)

7.Why does budget line slope downwards from left to right? (3)

8.Explain the effects of change in income of the buyers of a good on its demand. (3)

OR

Explain any there determinants of demand for a commodity for a household.

9.Explain the effect of "Change in Prices of inputs used" on the supply of a product. (3)

10.Define Perfect competition. State its any two features. (3)

11.A consumer buys 80 units of a good at a price of Rs. 5/- per unit. Suppose price elasticity of demand is (-)2. At what price will he buy64 units? (4)

12. Define Producer's Equilibrium. Explain producers Equilibrium with Marginal Revenue (MR) and Marginal cost (MC) approach under perfect competition. (4)

Or

Explain in case of perfect competition, determination of producer's equilibrium using TC and TR approach.

13.Calculate total variable cost and marginal cost at each given level of output from the following table- (4)

Output	0	1	2	3	4
Total	40	60	78	97	124

14.When will the equilibrium price of a commodity not change if its demand and supply both increase? Explain through a diagram. (6)

OR

There is a simultaneous 'decrease' in demand and supply of a commodity. When it will result in :No change in equilibrium Price. A fall in equilibrium price.

15.Explain the meaning of increasing returns to a factor with the help of TPP schedule and TPP curve. (6)

16.Explain different situation under which budget line shifts. Use diagram.(6)

SECTION B (MACRO ECONOMICS)

17. Give the meaning of ex-ante aggregate demand. 1

18. State the relationship between MPC and investment multiplier. 1

19. The price of 1 us dollar has fallen From Rs. 50 to Rs 48. Has the Indian currency appreciated or depreciated? 1

20. State the two components of money supply. 1

21. Name the primary function of money. 1

22. From the following data relating to a firm, calculates its net Value Added at factor cost: 3

	(Rs. In Lacs)
(i) Sales	1600
(ii) Subsidy	80
(iii) Closing stock	40
(iv) Depreciation	60
(v) Intermediate purchase	1000
(vi) Import of raw material	120
(vii) Exports	200
(viii) Opening stock	100
(ix) Purchase of machinery for own use	400

23. Distinguish between Domestic and National product. When can National product be more than Domestic product? 3

24. 'Fridge' purchased is always a final good.' Do you agree ? Give reasons for your answer. 3

25. Give three reasons why people desires to have foreign exchange. 3

OR

Explain the effect of Appreciation of domestic currency on Imports.

26. Distinguish between the current account and capital account of balance of payments account. Is import of machinery recorded in current account or capital account? Give reasons for your answer. 3

27. Categories the following government receipts into revenue and capital receipts. Give reasons for your answer. 4

(a) Receipts from sale of share of a public sector undertaking.
(b) Borrowings from public.
(c) Profits of public sector undertakings.
(d) Income tax received by government.

28. Explain the meaning of equilibrium level of income and output using savings and investment approach. Use a diagram. 4

OR

Complete the following table-

Income	Marginal Propensity to Consume	Saving	Average Propensity to Consume
0	--	-40	--
100	--	-20	--
200	--	0	--
300	--	60	--
400	--	120	--

29. What is the government budget? Give the meaning of : 4
    (i) Revenue deficit,
    (ii) Fiscal deficit,
    (iii) Primary deficit.

30. In an economy S=-100+0.5Y is the saving function. (Where S=saving and Y=national Income) and investment expenditure is Rs. 7000. Calculate : 6
    (i) Equilibrium level of national income
    (ii) Consumption expenditure at equilibrium level of national income.

31. Explain the process of money creation by commercial banks. 6

32. From the following data calculate National Income by expenditure and Income method : 6

	(Rs in crores)
(i) Government final consumption expenditure	300
(ii) Subsidies	30
(iii) Rent	600
(iv) Wages and salaries	1800
(v) Indirect Tax	180
(vi) Private final consumption expenditure	2400
(vii) Gross domestic capita information	360
(viii) Social security contribution by employers	165
(ix) Royalty	75
(x) Net factor income paid to abroad	90
(xi) Interest	60
(xii) Consumption of fixed capital	30
(xiii) Profit	390
(xiv) Net exports	210
(xv) Change in stock	150

OR

Calculate Personal Income and Gross National Disposable Income from the given data :

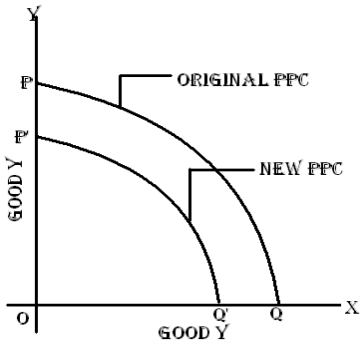
	(Rs in crores)
(i) Personal Tax	240
(ii) Net indirect tax	200
(iii) Corporation tax	180

(iv)	National income		2000
(v)	Net factor income abroad	10	
(vi)	Consumption of fixed capital		100
(vii)	National debt interest		140
(viii)	Retained earnings of private corporate sector		80
(ix)	Net current transfers to the rest of world		(-)40
(x)	Current transfers from government		60
(xi)	Current transfer from government		60
(xii)	Share of government in National income		160

MARKING SCHEME FOR MODEL QUESTION PAPER

SECTION A

1. Total utility should be falling. 1
2. Because of increased marginal opportunity cost. 1
3. One 1
4. Increase in demand. 1
5. Costs, which incurred on fixed factor. 1
6. With the death of lot of people amount of labour will fall and destruction of factories will cause a reduction in the stock of capital. This decrease in resources causes of shift of production possibility curve to the left showing less production of two goods than before. 1.1/2*2=3



7. Because with given income and given prices of two goods, if a consumer buys more of one good he has to buy less of the other good. 3
8. Normal goods – Increase in the income of consumer increases his demand. 1
   Inferior goods- Negative relationship between income and demand. 1

   Necessities of life- demand is unaffected. 1

   OR

   Following are the factors that affecting demand for a commodity by a consumer.

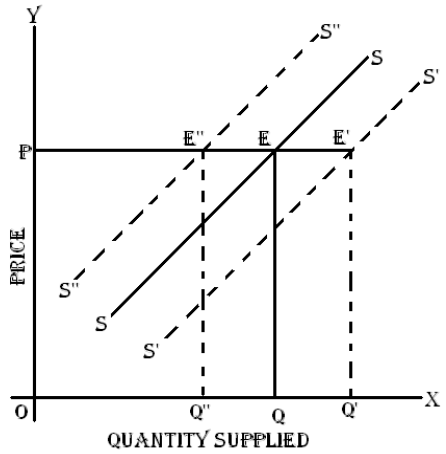
   (1)Price of the commodity 1

   (2)Income of the consumer 1

   (3)Price of Related goods (Substitute and Complementary goods) 1

9. Supply curve shifts rightward and leftward due to increase or decrease in price of the inputs.

Diagram 3



10. Perfect competition- It refers to a market situation in which there are large number of buyers and sellers selling homogeneous product. 1

Features- (any two) 1*2=2

(1) Very Large number of buyers and sellers.

(2) Homogeneous Product

(3) Free entry and exit of firms

(4) Perfect knowledge about market

(5) No Transport Cost.

11. $e_p = \frac{\Delta Q}{\Delta P} \times \frac{P}{Q}$

(-)2 = $\frac{16}{\Delta P} x \frac{5}{80}$ 1

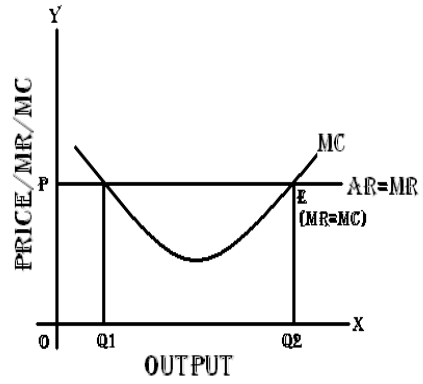
2 = $\frac{1}{\Delta P}$ 1

$\Delta P = \frac{1}{2}$

ΔP = 0.5 1

New price – P +ΔP = 5+0.5 = Rs 5.5 per unit. 1

12. PRODUCER'S EQUILIBRIUM-A producer's said to be in equilibrium when he produces the level of output at which his profit is maximum. 3+1=4



Under perfect competition, price =MR=AR which is parallel ro X axis. Two condition must be satisfiedto achiev producer's equilibrium.

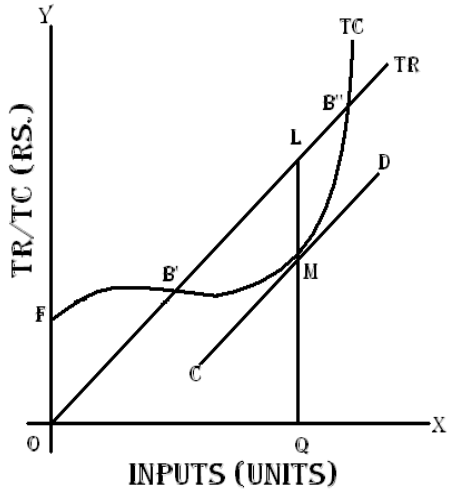
(1) MR=MC, (2) MC cuts MR from below

In the diagram OQ_2 is the equilibrium level of output because it satisfies both the conditions of equilibrium that is MR=MC and MC cuts MR from below.

If the firm Produces less than OQ_2 then profit are not maximize. On the other hand, if firm produces more than OQ_2 then there will be a loss and total profits will be reduced.

OR

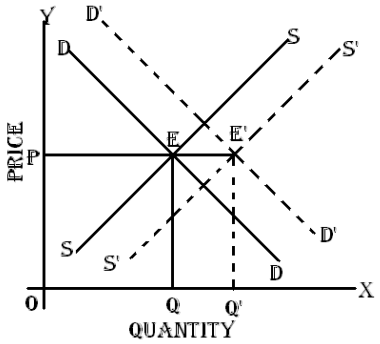
Under perfect competition, TR increases at constant rate as AR=MR and both AR, MR are constant as a firm is a price taker. Therefore, TR curve is a straight line from the origin. TC curve starts from F indicating of are a fixed cost. Line CD is tangent to TC curve such that it is parallel to TR curve. LM is the maximum vertical distance between TR and TC curves. Therefore, at OQ units of output firm earns maximum profit. Thus OQ is the firm's equilibrium level of output (Note : At point B' and B'', firm's TR=TC which therefore called as a Break-even point).



13. 2+2=4

Output	Total Cost	TFC	TVC	MC
0	40	40	0	0
1	60	40	20	20
2	78	40	38	18
3	97	40	57	19
4	124	40	84	27

14. When both demand and supply of a commodity increase (when both demand and supply curve of a commodity shift to the right), the equilibrium quantity will increase but the equilibrium price may or may not be affected. This can be shown by diagram.



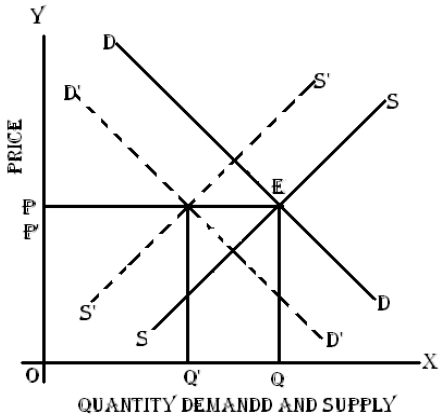
When both demand and supply of a commodity increase in equal proportion, the equilibrium price will remain the same. As shown in the diagram after change in both demand and supply price will remain the same as P and the equilibrium quantity changed from Q to Q'.

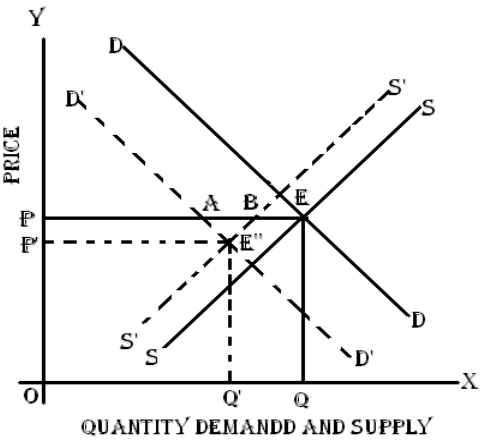
3+3=6

OR

Decrease means less quantity at the same price. Decrease in demand shift the demand curve to the left downwards. Decrease in supply shifts the supply curve to the left upwards.

(i)If decrease in demand is equal to decrease in supply, there will be no change in the equilibrium price .In the figure, both demand and supply decrease by E'E = Q'Q at a given price OP.



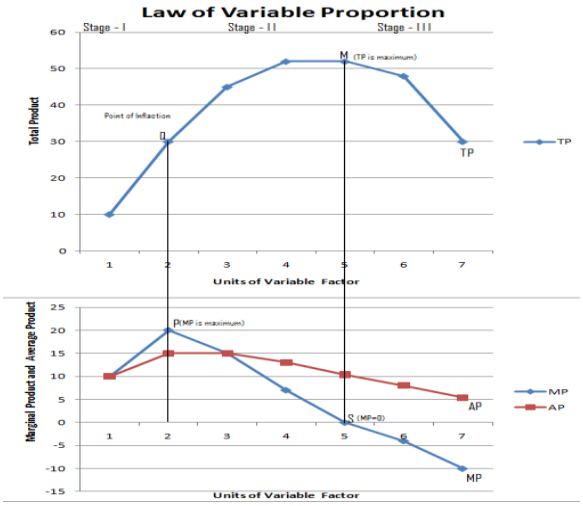


(ii)If decrease in demand is greater than decrease in supply, the equilibrium price will fall. In the figure, decrease in DD=AE. While decrease in supply is lower i.e. BE''. Therefore, equilibrium price falls from OP to OP'.

15 law of variable proportions – The law of variable proportion states that if we go on using more and more units of a variable factor (Labour) with a fixed factor (land), the total physical product increases at an increasing rate in the beginning,then increases at a decreasing rate after a level of output and ultimately it falls. In accordance with the law , the Marginal Physical Product increases in the beginning, then its start falling but remain positive and ultimately it continues to fall but also becomes negative. The following schedule and diagram illustrate the law.

Schedule and Diagram-

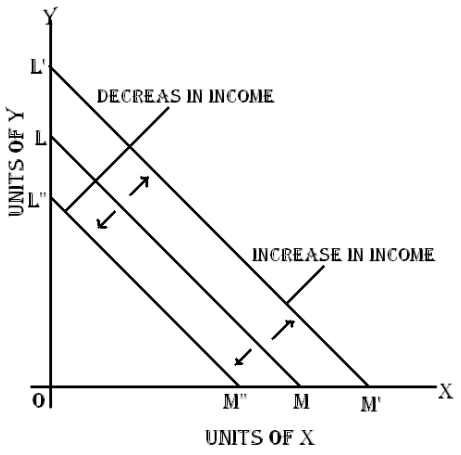
Fixed	Variable	Total	Marginal	Average	Stages
1	1	10	10	10	First Stage (Increasing Returns to Factor)
1	2	30	20	15	
1	3	45	15	13	Second Stage (Decreasing Returns to factor)
1	4	52	7	13	
1	5	52	0	10.4	
1	6	48	-4	8	Third Stage (Negative Returns to a Factor)
1	7	38	-10	5.4	



The schedule and the diagram shows that there are three phases of the law of variable proportions. In the First phase, TPP ncreases at an increasing rate and MPP rises. In phase II, TPP increases at a diminishing rate and MPP falls but remain positive. In phase III, TPP starts falling and MPP becomes negative. Phase I is up to unit 2 and phase II is from unit 2 to unit 5. Phase III is after unit 5.

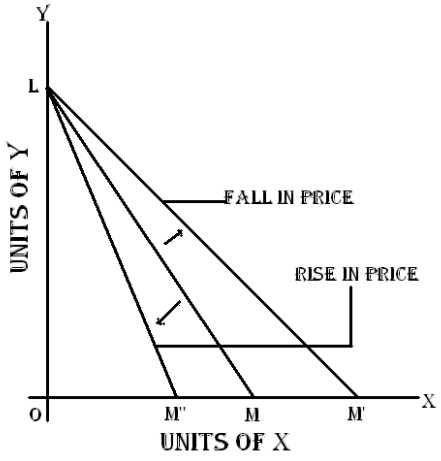
2+2+2=6

1. Shifts In Budget Line.
   Case I – When consumer's money income increases but price of commodities remain constant. 3



If LM is the Budget Line. Suppose if money income is increases then consumer will be able to purchase more goods with the new income at the given prices, therefore budget line will shift to the right (L'M'). Suppose if money income is decreases then consumer will be able to purchase less goods with the new income at the given prices, therefore budget line will shift to the left (L''M''). New budget line L'M' and L"M" is parallel to the original budget line LM because slope of new budget lines remain same since price do not change.

Case II – When prices of good X change and income of consumer's remain constant. 3



If LM is the Budget Line. Suppose if price of good X falls but money income and price of Y good remain constant then consumer will be able to purchase more of good X only, therefore budget line will shift to the right (L'M'). Suppose if price of good X rises but money income and price of Y good remain constant then consumer will be able to purchase less of good X only, therefore budget line will shift to the right (L''M'').

SECTION B

17. Ex-ante aggregate demand refers to the anticipated total demand for goods and services in an economy during a given period of time. 1

18. Multiplier (K) = 1/1-mpc 1

19. Indian currency has appreciated. 1

20. The two components of money supply are : Currency held with the public and demand deposits with commercial banks. 1

21. Money as the measure of Value And Money as a medium of exchange. 1

22. NVA_{fc} = 1600+40-100-1000-60+80

= Rs560 lakhs 3

23. Domestic Product refers to the output produced by all production units located within the domestic territory of a country during a period account. 1

National product refers to the output produced by normal resident of a country (within and outside the country) during an accounting year. 1

When Net Factor Income from Abroad is positive then National product can be more than Domestic product 1

24. Whether machine is a final good or not depends on how it is being used .
If the machine is bought by a household, then it is a final good. 1
If the machine is bought by a firm for its own use, then also it is a final good. 1
If the machine is bought by a firm for resale then it is an intermediate good. 1

25. Three reasons. (1x3 = 3)

(1) To purchase goods and services from other countries by the domestic residents.
(2) To send gifts and grants to foreign countries.
(3) To invest and purchase financial assets in some other country

OR

Appreciation of domestic currency means a rise in the price of domestic currency (say rupee) in terms of a foreign currency (say $). It means one rupee can be exchanged for more $. So with the same amount of money more goods can be purchased from USA. It means imports from USA have become cheaper. They may result in increase of imports (from USA). **3**

26. The current account records transactions relating to the export and import of goods and services, income and transfer receipts and payments during a year. 1

The capital accounts records transactions affecting foreign assets and foreign liabilities during a year. **1**

Since import of machinery is an import of good, it is recorded in the current account. 1

27. (a) It is a capital receipt as it results in reduction of assets. 1

(b) It is a capital receipt as it creates a liability. 1

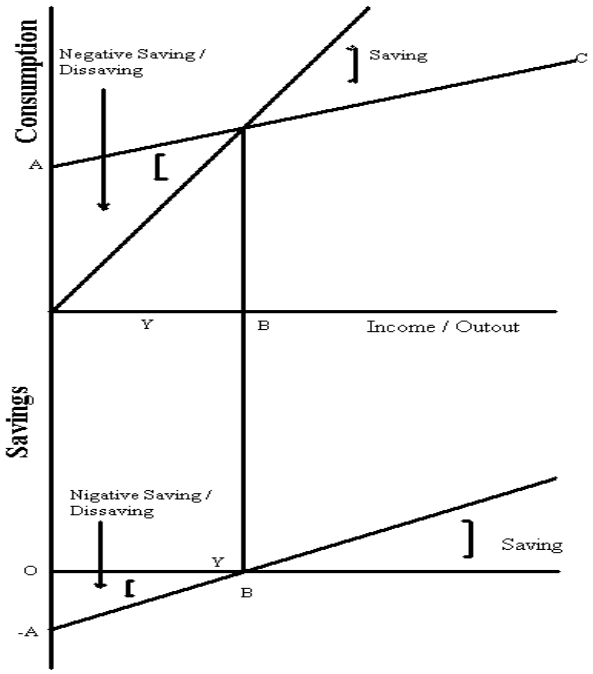
(c) It is a revenue receipt as it neither creates a liability nor reduces any assets. 1

(d) It is a revenue receipt as it neither creates a liability nor reduces any assets. 1

28. AC is the consumption curve and OA is the consumption expenditure at zero level of income. Income minus consumption is saving. When income is zero, the economy's consumption level is OA. Thus, 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 of saving curve. Join A and B and extend this line to S, AS is the saving curve. 1

(a) The level of income at which APC is equal to one is OB. 1/2
(b) A level of income at which APS is negative is OY. 1/2
2



OR

Income	Δ Y	Saving	Consumption	Δ C	MPC	APC
0	**--**	**-40**	**40**	**--**	**--**	**--**
100	**100**	**-20**	**120**	**80**	**0.8**	**1.2**
200	**100**	**0**	**200**	**80**	**0.8**	**1.0**
300	**100**	**60**	**240**	**40**	**0.4**	**0.8**
400	**100**	**120**	**280**	**40**	**0.4**	**0.7**

29. Government Budget is a statement of expected receipt and expenditure of the government during a financial year. 1

(a) Revenue deficit is the excess of revenue expenditure over revenue receipts. 1
(b) Fiscal deficit is the excess of total expenditure over total receipts excluding borrowings. 1
(c) Primary deficit refers to the deference between fiscal deficit of the current year and interest payments on the previous borrowings. 1

30. Saving Function $S = -100 + 0.5\ Y$

Consumption Function $C = Y - S$

$C = Y + 100 - 0.5\ Y$

$C = 100 + 0.5\ Y$

Investment $I = 7000$

(a) Equilibrium Level of National Income 3

$Y = AD = C + I$

$Y = 100 + 0.5\ Y + 7000$

$0.5\ Y = 7100$

$Y = 7100 / 0.5 = \text{Rs. } 14200$

(b) Consumption expenditure at equilibrium level of national income 3

$C = Y + 100 - 0.5\ Y$

$Y = 14200 = 100 + 0.5\ (14200)$

$= 7200$

31. Money creation or deposit creation or credit creation by the bank is determine by (1) the amount of the initial fresh deposits and (2) the Legal Reserve Ratio (LRR), the minimum ratio of deposit legally required to be kept as cash by banks. It is assumed that all the money that goes out of bank is redeposited in to the banks.

Let the LRR be 20% and there is a fresh deposit of Rs. 10000. As required, the banks keep 20% i.e. Rs. 2000 as cash. Suppose the bank lend the remaining Rs. 8000. Those who borrow use this money for making payments. As assumed who receive payments put the money back in to the bank. In this way bank receive fresh deposit of Rs, 8000.

The bank again keep the 20% i.e. Rs. 1600 as cash and lend Rs. 6400, which is also 80% of the last deposit. The money again comes back to the banks leading to a fresh deposit of Rs. 6400. The money goes on in multiplying in this way, and ultimately total money creation is Rs. 50000.

33. Expenditure Method

National Income	=	vi + i + vii + xiv – v + ii – xii – x	1
	=	2400+300+360+210-180+30-30-90	1.1/2
	=	Rs. 3000 Crores.	1/2

Income Method

National Income	=	iv + viii + (iii + ix) +xi + xiii – x	1
	=	1800+165+(600+75)+60+390-90	1.1/2
	=	Rs. 3,000 Crores.	1/2

OR

Personal Income	=	(iv - xi) + (vii- ix- x) – viii – iii	1
	=	2000 - 160 + 140- (-40) + 60 – 80 – 180	1.1/2
	=	Rs. 1820 Crores.	1/2
GNDI	=	iv + ii + vi – ix	1
	=	2000 + 200 + 100 - (-40)	1.1/2
	=	Rs. 2340 Crores.	1/2

Sample Question Paper – 2

CLASS-XII

SUB-ECONOMICS

Time : 3 Hrs Max. Marks - 100

General instructions:

1. Q. No. 1 to Q. No. 5 & 17 TO 21 are very short answer type carrying 1 mark each. Answer these questions in one sentence only.
2. Q.No. 6 to 10 & Q.No. 22 to 26 are short answer type carrying 3 marks each. Answer to them should not normally exceed 60 words each.
3. Q.No. 11 to 13 & Q.No. 27 to 29 are short answer type carrying 4 marks each. Answer to them should not normally exceed 70 words each.
4. Q No. 14 to 16 & Q. No. 30 to 32 are long answer type carrying 6 marks each. Answer to them should not normally exceed 100 words each.
5. There is no words limitation for numerical questions.

Section -A

1. What is law of demand?
2. State one feature of oligopoly
3. In which market form demand curve of a firm is perfectly elastic.
4. Why is demand for water inelastic?
5. Name the characteristic which make monopolistic competition different from prefect competition.
6. Explain any three factors that affect elasticity of demand.
7. Given below is the cost schedule of a firm. Its average fixed cost is Rs20 when it produced 3 units.

Output(units)	1	2	3
Average variable cost (Rs)	30	28	32

Calculate its marginal cost and average cost at each given level of output.

8. Total revenue at the price of Rs 4 per unit of a commodity is Rs 480. Total revenue increases by Rs 240 when its price rises by 25 percent. Calculate its price elasticity of supply.

OR

Differentiate between Change in Quantity supplied and Change in supply.

9. Explain the implication of 'homogenous product 'feature of prefect competition.

10. State & explain the law of diminishing marginal utility with the help of utility schedule.

11. Explain the effect of increase the income of buyer of a normal commodity on its equilibrium price.

OR

Why does the demand curve slopes downward?

12. Explain the problem of what to produce.

13. When the price of the commodity falls by Rs. 2 per unit, its quantity demanded increases by 10 units. Its price elasticity of demand is (-)1. Calculate its quantity demanded at the price before change which was Rs 10 per unit.

14. Explain the concept of consumer equilibrium when a consumer purchases two commodities. (IC Approach)

OR

Define Indifference Curve. Explain any two features of indifference Curve.

15. Explain the law of variable proportion with the help of total product and marginal product curve.

16. State whether the following statement are true or false. Give reason for your answer.

(a) When total revenue is constant average revenue will also be constant.

(b) Average variable cost can fall even when marginal cost is rising.

(c) When marginal product falls average product will also fall.

Section –B

17. State two sources of supply of foreign exchange.

18. Give the meaning of aggregate demand.

19. State the meaning of money supply.

20. How is the primary deficit calculated?

21. Give the meaning of deflationary gap.

22. How can Government budget be helpful in altering distribution of income in an economy? Explain.

23. Explain the 'currency authority' function of central bank.

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

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

or

What are causes for disequilibrium of balance of payments.

26. Giving any two examples explain the relation between the rise in price of foreign currency and its demand.

27. Distinguish between :

(a) Capital receipts and revenue receipts.

(b) Direct tax and indirect tax.

28. Giving reason, state whether the following statement true or false:

(a) Average propensity to save is always greater than zero

(b) Value of investment multiplier varies between zero and infinity.

29. Explain the process of money creation by Commercial Banks.

OR

Explain briefly measures of money supply in India.

30. In an economy 75 percent of the increase in income is spent on consumption. Investment is increased by Rs 1,000 crores. Calculate:
    (a) Total increase in income
    (b) Total increase in consumption expenditure.

31. How will you treat the following while estimating national income of India?
    (a) Dividend received by an Indian from his investment in share of a foreign company.
    (b) Money received by a family in India from relative working abroad.
    (c) Interest received on loan given to a friend for purchasing a car.

32. From the following data calculate (a) GDP at factor cost and (b) factor income to abroad:

ITEMS	Rs. In crore)
(I) compensation of employees	800
(II) profit	200
(III) dividend	50
(IV) GNP at market price	1400
(IV) rent	50
(V) interest	100
(VI) gross domestic capital formation	300
(VII) net fixed capital formation	200
(IX) change in stock	50
(X) factor income from abroad	60
(XI) net indirect taxes	120

OR

Distinguish between –
    (a) factor Income and Transfer Income
    (b) Final Goods and Intermediate Goods
    (c) Consumption goods And Capital Goods

MARKING SCHEME

1. Inverse relationship between price and demand of a good , other things remains constant , is termed law of demand .
2. (a) few firms
   (b) Firms are interdependence in taking price and output decision.
   (c) Non price competition (any one)
3. Prefect competition.
4. Because it is a necessity.

5. Firms produced differentiated products.

6. (i) Nature of good 1\2

Demand is inelastic in case necessities while elastic in case of luxuries 1

(II) Number of substitutes ½

More the number of substitution more the choice the consumer has and therefore more elastic the demand 1

7.

output	AVC	AFC	TVC	MC	ATC
1	30	60	30	30	90
2	28	30	56	26	58
3	32	20	96	40	52

½*6

8.

PRICE (Rs)	TR(Rs)	OUTPUT(RS)	
4	480	120	1
5	720	144	1

Ed= % change in quantity/% change in price 1

= 24/1*4/120

= 0.8

Or

CHANGE IN QUANTITY SUPPLIED: - It is caused by a rise/fall in the price of a commodity. It is expressed either in form of an expansion in supply or contraction in supply. Expansion and contraction in supply are represented diagrammatically in the form of a movement along a given supply curve. Contraction is due to fall in price.

CHANGE IN SUPPLY:- A change in supply of a commodity caused by factors other than Price such as

i) change in technology.

ii) change in taxation policy of the government

iii) change in goals of the forms etc.

Change in supply is represented graphically by a rightward or leftward shift. Decrease is due to fall in Factors other than the price. Leftward shift shifting of supply curve leads to decrease the supply.

9. Due to homogenous product price remain constant .Because supplier has no ground to change price.

10.

Consumption units	Total utility	Marginal utility
1	4	4
2	7	3
3	9	2
4	10	1

Or any other relevant schedule

Explain the law of diminishing marginal utility on the basis of above schedule

11. Increase in income leads to increase in demand at the given price ;4
    1. This lead to excess demand.
    2. Leads to competition among the buyers as a result price start rising.
    3. Rise in price leads to rise in supply and fall in demand
    4. These change continue till supply and demand become equal at new equilibrium price.
    5. Equilibrium price rise.

    or

The demand curve slopes downward because of :- i) Law of diminishing marginal utility : According to this law, as a consumer in a given time, increases the consumption of a thing, the utility from each successive unit goes on diminishing A Consumer gets maximum satisfaction. When the price of a commodity is equal he its marginal utility. As more units are bought, their marginal utility diminishes. Thus, a consumer will buy more units of a commodity, with fall in its price.

ii)Income effect : Change in the price of a commodity causes a change in the real income of the consumer. With fall in price, real income increases. The increased real income is used to buy more units of the commodity.

iii)Substitution effect : When the price of community X falls it becomes cheaper in relation to commodity. Accordingly, X is substituted for the commodity. A consumer in order to get more satisfaction, will boy more units of the commodity whose price has fallen in relation to the commodity.

iv)Uses of commodity : If a commodity has diverse uses, with the fall in the price of product consumer will buy more.

12. The economy can produce different possible combination of goods and services from the given resource.
    The problem is that which of this combination should be economy produce. This is the problem of choice if more of one goods produced then lesser resources are left for producing other goods.

13. Given

change in price = -4

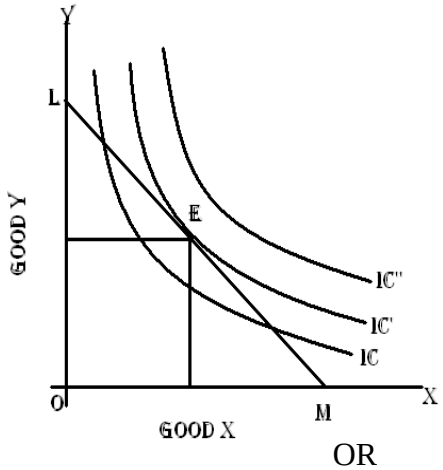
change in quantity = -10

ed = %change in quantity of demand /%change in price

-1=10/-2*10/Q

Q = 50 UNITS.

14.The indifference curve on the budget line to find the point of consumer's equilibrium. The teacher will state the conditions for consumer equilibrium. (1)Indifference Curve should be convex to the origin. (2)Slope of Budget Line should be equal to the slope of IC. (Px/Py = MRSxy).



The teacher will use power point slides to show the diagram and explain the conditions. (1) Why will the consumer not choose a bundle on IC'. (2)Why will the consumer not choose a bundle on IC''.

OR

Indifference Curve – It is the locus of various points which represent the various combination of two goods which give equal level of satisfaction to the consumer. 2

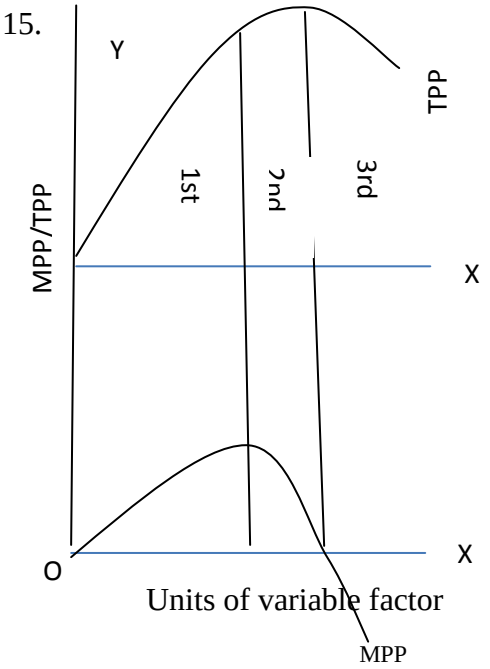
Features of IC (Explain Any two) 2*2=4

(i) Sloping down ward from left to right. 2

(II) Strictly convex to the origin

(III) Higher indifference curve represent higher utility

15.



According to the law of variable proportion when only one factor is increased while other factor remain unchanged, MP and TP change in the following manner:

Phase - 1 MP increases and TP increases at increasing rate

Phase - 2MP decreases but is positive and TP increases at decreasing rate

Phase - 3 MP decrease and is negative and TP falls

or

L	1	2	3	4	5	6	7	8	9	10
TPP	3	7	12	16	19	21	22	22	21	19
APP	3	3.5	4	4	3.8	3.5	3.14	2.75	2.33	1.9
MPP	3	4	5	4	3	2	1	0	-1	-2

Law of Variable Proportions-The law states that if we go on using more and more units of a variable factor (Labour) with a fixed factor(land , Capital) the total output initially increases at an increasing rate but beyond certain point, it increases at a diminishing rate and finally it falls.

This can be studied in three stages (I, II, and III) Total Physical Product (TPP) :- The total output of commodity at a particular level of employment of an input(Labour), Average Physical Product (APP):- Dividing the TPP by the number of inputs. Marginal Physical Product (MPP):- An addition made to the TPP by employing an additional unit of a variable input

TPP & MPP Relationship:- a) When MPP is positive, TPP increases at increasing rate (I stage) b) When MPP is zero, TPP is maximum,(II stage) c) When MPP is negative, TPP is falling(III stage) (or)

(i) It means that TPP increases at an increasing rate and consequently MPP rises. It is due to (a) more efficient utilization of fixed input and (b) division of labour andspecialisation due to increase in the quantity of variable input. (3)

(ii) It means output increasing in greater proportion than the increase in all input simultaneously and in the same proportion. It is due to (a) more division of labour leading to specialisation that increases productivity and(b) use of specialized machines.

16. (a) false because when TR is constant, AR will fall as output increases

(b) True, provided MC‹AP.

(c) False because AP falls only when MP‹ AP. AP falls not because MP falls but because MP‹ AP.

SECTION - B

17. Exports, foreign tourists etc.
18. It is the expected demand for all goods and services in the economy.
19. (i) Currency and coin with public (ii) demand deposit of commercial bank.
20. Primary deficit = fiscal deficit - interest paid.
21. Excess of aggregate supply over aggregate demand at full employment level

Three marks answer

22. Through the budget government can reduce inequality of income. It can adopt progressive taxation policy and spend more on requirement of the poor.
23. It has sole authority to issue currency. It does so in accordance with the requirement of the economy.
24. If with increase in GDP inequality of income increase, poor become poorer while rich become richer. This may lead to decline in welfare even though GDP has increased.
25. Autonomous transaction take place independently of the state of B.P.O. Accommodating transaction are transaction that are determine by net consequence of Autonomous transaction.

or

DISEQUILIBRIUM IN BOP: It is a state of either deficit BOP status or surplus BOP status. Equilibrium in BOP is achieved when the net balance of all receipts & payments is zero.

CAUSES OF DISEQUILIBRIUM: Disequilibrium in BOP is caused by a number of factors, broadly categorized as (a) economic factors (b) political factors (c) social factors. Following are the details:

ECONOMIC FACTORS: -Huge development expenditure: Huge development expenditure by the government owing to which there are large scales imports. It may cause a deficit BOP disequilibrium.

Business cycle: Business cycles in terms of recession, depression, recovery & boom. A period of boom may witness a large scale export of a country. Accordingly a 'surplus BOP disequilibrium' may occur.

High rate of inflation: High rate of inflation in domestic market, compelling large scale imports of essential goods. This drives the economy towards deficit BOP disequilibrium

26. When price of foreign exchange rises,

(i) Import become dearer resulting in less import and therefore falls demand for foreign currency.
(ii) Tourism abroad become costlier and so demand for foreign currency falls.(or any other points)

27. (a) Receipts which lead to either reduction in assets or increase in liabilities are called capital receipts. Receipts which neither reduced assets not create any liability are revenue receipts.

(b)Direct tax is a tax whose incidence and impact fall on the same person .indirect tax is a tax whose incidence and impact fall on the different person.

28. (I) false, it can be negative at low level of income when consumption expenditure is greater than income.

(II) false, it varies from 1 to infinity.

29. Money creation by bank is determine by (1) fresh deposit and(2) legal reserve ratio. Suppose fresh deposit is Rs 10000 and LRR is 20%. Initially bank keeps Rs. 2000 as cash and lendsRs 8000. Those who barrow spend this Rs8000. it is assumed that this rupees 8000 comes into bank as a fresh deposit .bank again keep 20% of it as cash reserve and lend the rest in this way money creation goes on. Total money creation is Rs 50000.

Money creation = initial deposit X 1/LRR.

OR

M_1 = Currency with Public + Demand Deposits + Other deposit with RBI

M_2 = M_1 + Deposit with post office savings bank account

M_3 = M_1 + Time Deposits with Banks

M_4 = M_3 + Total deposits with post offices (Excluding NSC)

30. MPC = 3 / 4 , MPS =1 / 4, K = 4

(I) $\Delta Y = \Delta I * K$

$= 1000 * 4$

= RS4000 Crore

(II) Given that $\Delta Y = \Delta C + \Delta I$

$\Delta C = \Delta Y - \Delta I$

= 4000- 1000

Rs 3000 crore

31. (a) it is factor income from abroad , so will be included in N.I

(b) It is transfer receipts, so it is not included in N.I.

(c) Not included in N.I. because it is a non-factor receipt as the loan is not used for production but for consumption.

32. (A) GDP at factor cost = (i) + (ii) + (v) + ((VI) - (vii) - (viii+ix))

= 800 + 200 +150 + 100+ (300-200-50)

= Rs 1300 crore.

(B) NFIFA = GNP @MP – GDP @ MP

= (VI) - (GDP@FC+ (XI))
= 1400-(1300+120)
= -20

FITA = FIFA - NFIFA

= 60- (-20)

=Rs 80 crore

OR

FACTOR INCOME- Factor Income is the income received by the factors of production for rendering factor services in the process of production (wage, rent, interest and profit).

TRANSFER INCOME- Transfer Income refers to the income received without rendering any productive services in return (old age pension , unemployment allowances).

FINAL GOODS- Final Goods are those goods which are used either for consumption or for investment (Cloths, TV set , Cars, Machinery).

INTERMEDIATE GOODS- Intermediate Goods are those goods which are used either for resale or for further production (Milk purchase by dairy shop, tyres purchased by a cycle shop).

CONSUMPTION GOODS- Consumption Goods are those goods which satisfy the wants of the consumers directly (Bread, Butter, Shirts etc).

CAPITAL GOODS- Capital Goods are those goods which help in production of goods and services (Machinery, equipments, Plants etc).

Sample Question Paper 3

Subject: Economics

Time: 3 Hours CLASS: XII Max. Marks: 100

General Instructions

All questions in both the sections are compulsory.

1. Marks for questions are indicated against each.
2. Question number 1-5 and 17 – 21 are very short answer questions carrying one mark each. They are required to be answered in one sentence each.
3. Question number 6-10 and 22 – 26 are short-answer questions carrying three marks each. Answers to them should not normally exceed 60 words each.
4. Question number 11-13 and 27 - 29 are also short-answer questions carrying 4 marks each. Answers to them should not normally exceed 70 words each.
5. Question numbers 14-16 and 30 – 32 are long answer questions carrying 6 marks each. Answers to them should not normally exceed 100 words.
6. Answers should be brief and to the point and above word limit be adhered to as far as possible.

Section A

1 What does rightward shift of production possibility curve indicate? 1

2 Give the meaning of Marginal utility. 1

3 Explain Inferior Goods. 1

4 What change will take place in marginal product, when total product increases at diminishing rate? 1

5 Under which market form the firms are interdependent? 1

6 Explain the central problem of 'How to produce' with the help of an example. 3

7 State any three causes of rightward shift of demand curve. 3

OR

State any three factors determining elasticity of demand, and explain any one of them.

8 When price of a commodity rises from Rs. 4 per unit to Rs.5 per unit, total revenue increases from Rs.600 to Rs. 900. Calculate its price elasticity of supply. 3

9 Explain the relationship between Average cost and Marginal cost with the help of a schedule. 3

10 Explain the implication of differentiated product in monopolistic competition. 3

11 Explain the effect of a rise in the price of related goods on the demand for a good X. 4

12 Differentiate change in demand and change in quantity demand with the help of diagrams. 4

OR

Explain how elasticity of demand is measured with the help of straight line demand curve.

13 Given below is the cost schedule of a firm. Its average fixed cost is Rs. 30 when it produces 3 units. Calculate marginal cost and average cost at each given level of output. 4

Output (units)	1	2	3
Average variable cost (Rs)	30	28	32

14 Explain consumer's equilibrium with the help of Indifference curve approach. 6

15 There is a simultaneous decrease in demand and supply of a commodity. When will it result in: 6

(a) No change in equilibrium price.

(b) A fall in equilibrium price. Use diagrams.

16 Explain the law of variable proportions with the help of a diagram 6

OR

Explain producer's equilibrium with the help of MR and MC Approach.

Section B

17 Give meaning of aggregate supply. 1

18 What can be the minimum value of multiplier? 1

19 What is excess demand? 1

20 Define bank rate. 1

21 A government budget shows a primary deficit of Rs.4400 crore. The revenue expenditure on interest payment is Rs.500 crore. How much is the fiscal deficit?

122. State any three items of current account of BOP Account? 3

23 From the following data calculate its net value added at factor cost: 3

(Rs. In Lacs)

(i)	Subsidy	40
(ii)	Sales	700
(iii)	Exports	20
(iv)	Closing stock	100
(v)	Opening stock	120
(vi)	Intermediate purchases	150
(vii)	Depreciation	30
(viii)	Import of raw material	25

24 Explain any two functions of money. 3

25 Explain the function of a central bank as a banker to the government. 3

26 How can a government budget help in reducing inequalities of income? Explain. 3

OR

What do you mean by Fiscal deficit? Give any two implications of fiscal deficit. 3

27 What is the difference between revenue expenditure and capital expenditure in a government budget? Give two examples each. 4

28 Explain four sources each of demand for foreign exchange and supply of foreign exchange. 4

29 From the following information about an economy, calculate

(i) Its equilibrium level of national income and

(ii) Consumption expenditure at equilibrium.

Consumption function = C = 200 + 0.9 Y and

Investment expenditure = Rs.3000crore. 4

OR

In an economy S = (-) 50 + 0.5 Y is the saving function and Investment expenditure is 7000. Calculate i)its equilibrium level of national income and ii) Consumption expenditure at equilibrium.

30 Will the following be a part of Domestic Factor Income of India? Give reasons.

(i) Old age pension given by the Government.

(ii) Factor income from abroad.

(iii) Salaries to Indian residents working in Russian Embassy in India.

(iv) Profits earned by a company in India which is owned by a non-resident.

31 How equilibrium level of income and output is determined with the help of C + I Approach. Use diagram

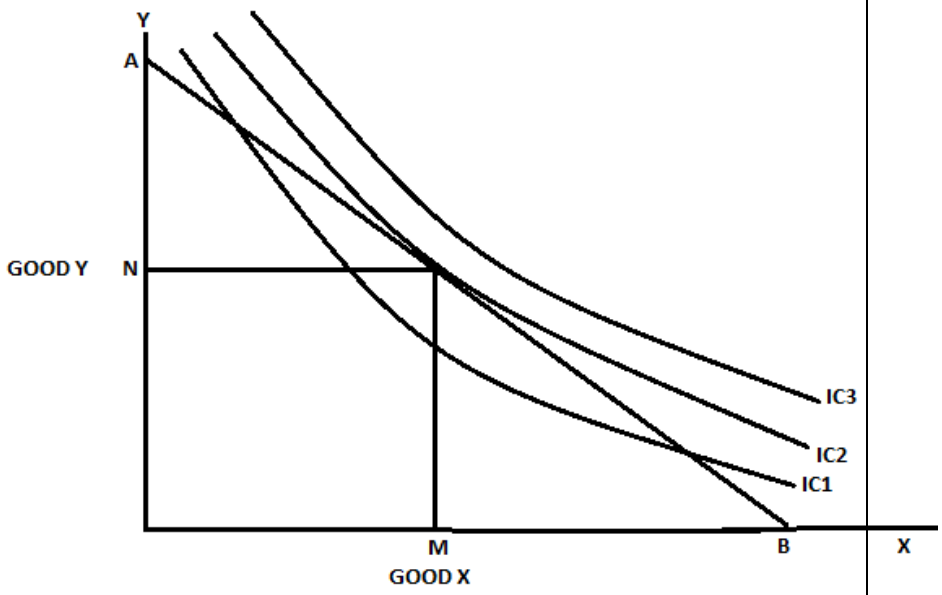
OR

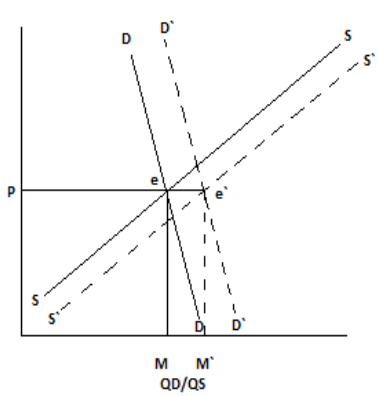
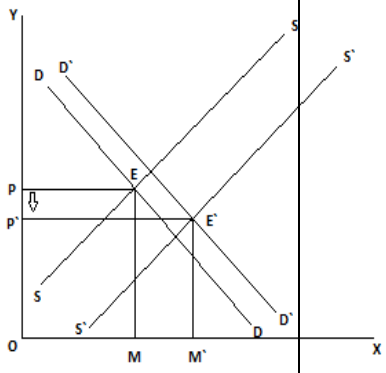
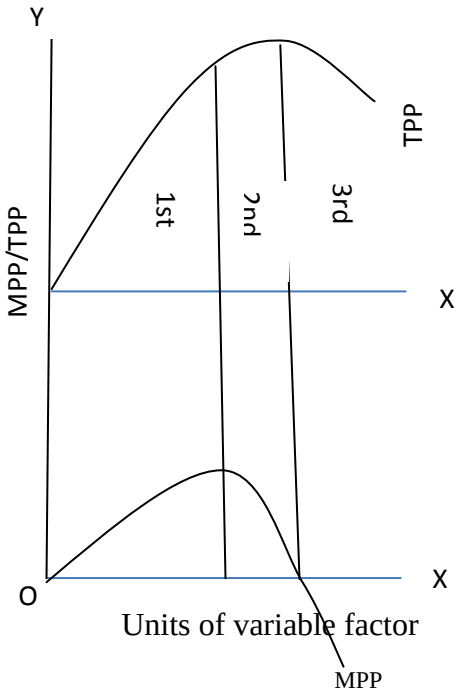
Explain consumption with the help of schedule and diagram.

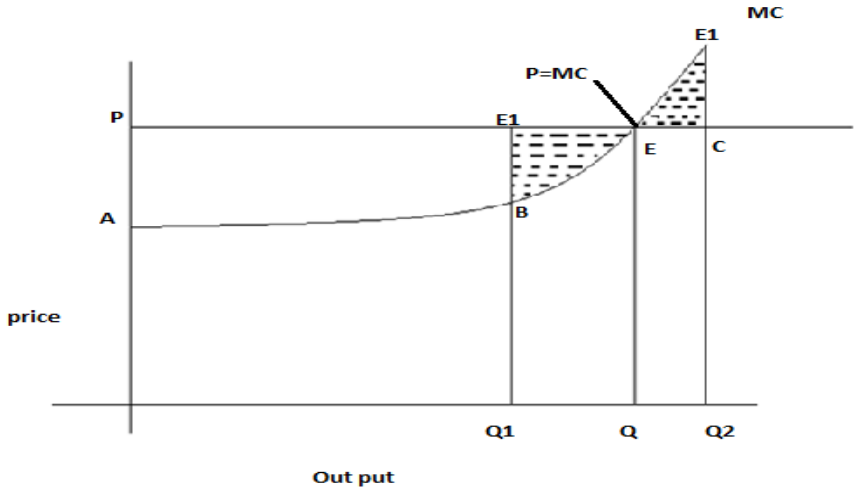
32 Calculate Net National Product at Market Price and Private Income from the following data: 3, 3

(i)	Net factor income from abroad	(-) 5
(ii)	Private final consumption expenditure	100
(i)	Personal tax	20
(ii)	Gross national disposable income	170
(iii)	Government final consumption expenditure	20
(iv)	Net national disposable income	145
(v)	Corporation tax	15
(vi)	Gross domestic capital formation	30
(vii)	Personal disposable income	70
(viii)	Net exports	(-) 10
(ix)	Saving of private corporate sector	5

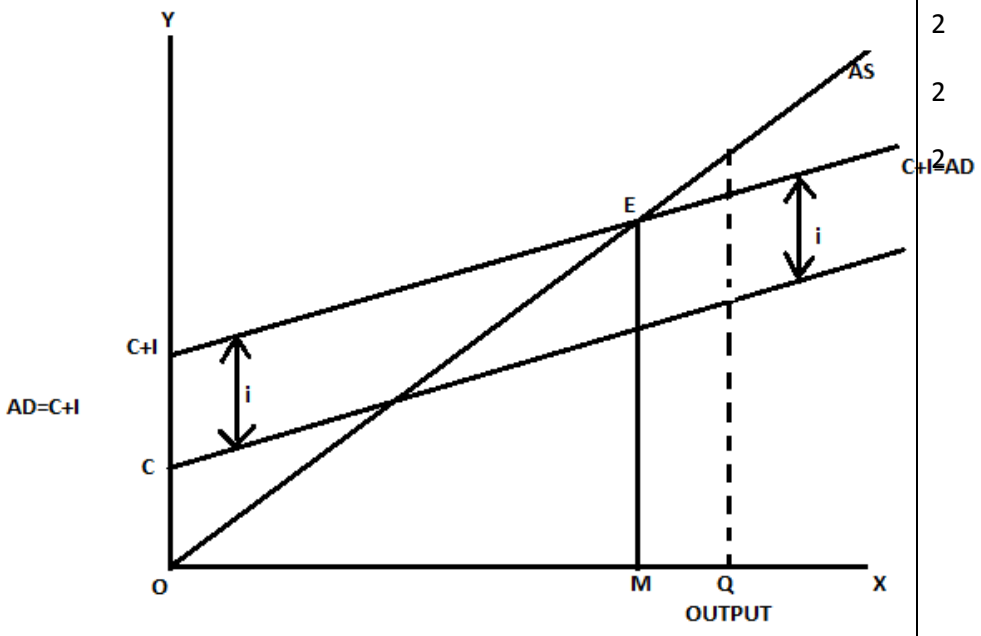
Marking scheme		
Q.NO	VALUE POINTS	MARKS
1	Growth of resources	1
2	Addition to the total utility from the consumption of an additional unit of a commodity.	1
3	Inferior goods are those goods whose demand decreases as income of the household's increases.	1
4	Marginal product decreases.	1
5	Oligoply	1
6	How to produce means selection of technology to produce goods and services. That is Capital intensive technology or labour intensive technology. Example (i) For the cultivation of land if labour is cheap we have to follow labour intensive technology.	1 1 1
7	(i) Increase in the price of substitute goods (ii) Decrease in the price of complimentary goods. (iii) Increase in the income of the households on normal goods and (iv) Decrease in the income of the households on inferior goods. OR (i) Availability of substitute goods (ii) Price of the commodities (a) High price more elastic (b) Low price in elastic (iii) Habits of the consumer (any other relevant answers)	1 1 1
8	Price TR QS 4 600 150 5 900 180 Es= ΔQS/QS/ΔP/P = 30/150 x 4/1=4/5=.8	1 1 1
9	Output TC AC MC 1 20 20 20 2 38 19 18 3 54 18 16 4 72 18 18 5 100 20 28 6 150 25 50 with explanation	3
10	Differentiated products leads the sellers in the monopolistic competition as price makers. It persuade the consumer to buy the product.	3
11	Related goods; Rise in price of substitute goods causes rise in demand for other goods. Rise in price of complimentary goods causes fall in demand for other goods.	3

12	Change in quantity demand is due to the change in price when other factors are constant and change in demand is due to the other factors when the price is constant. Change in quantity demand causes movement along the demand curve and change in demand causes shift in demand curve. OR Elasticity of demand on a straight line demand curve is determined on the basis of the formula ed = Lower segment of the demand curve/Upper segment of the demand curve.	4
13	Output 1 2 3 AVC 30 28 32 AFC 90 45 30 TVC 30 56 96 TFC 90 90 90 TC 120 146 186 MC 30 26 40 AC 120 73 62	4
14	Consumers equilibrium: means the consumer get maximum satisfaction with the help of available income and price of goods Conditions :budget line should be tangent to the indifference curve slope of indifference curve = slope of budget line  	4

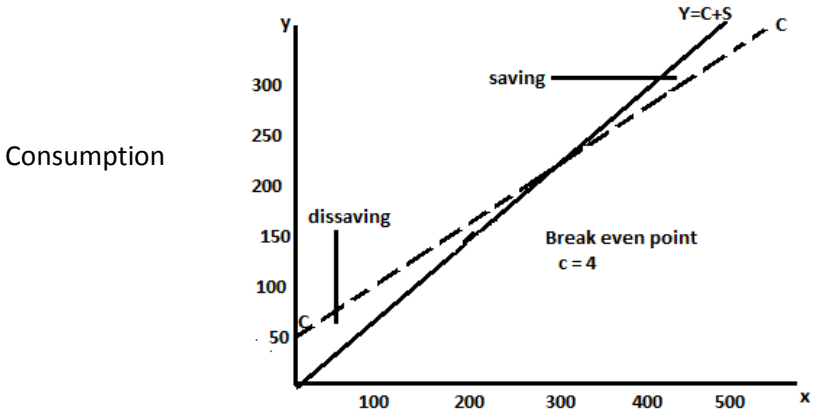
15	Diagram : Ratio of change in demand and supply are equal Ratio of change supply is more than change in demand   	**4**
16	Law of variable proportions meaning: If more and more units of a variable factor are employed with fixed factors TPP increases at an increasing rate in the beginning then increases at a diminishing rate and finally starts falling.  	2 2 2

	Phase I : TPP increases at an increasing rate up to OQ1 level of out put Phase II: TPP increases at a diminishing rate till it reaches its maximum point (N). MPP is falling but remains positive Phase III : TPP starts declining MPP become negative OR Producer equilibrium means is the situation of that level of output which gives the producer maximum profit and he has no incentive to increase or decrease the level of output.  Condition: me cut the MR/price line below i.e. price= mc. Total profit = POQE(area under price line i.e. total revenue) – AOQE(area under MC curve i.e. total cost = PAE (profit)	
17	The total supply of goods and services in the economy.	1
18	Minimum value of multiplier is 1	1
19	When aggregate demand is more than aggregate supply at full employment.	1
20	Bank rate is the rate at which the central bank lends to the commercial banks.	1
21	Fiscal deficit = primary deficit + interest payments 4400 + 500 = Rs.4900.	1
22	Export and import of goods Export and import of services Unilateral services	1

23	ii + (iv – v) – vi – vii –(0 – i) 700 + (-) 20 – 150 -30 – (0- 40) 740 – 200 = Rs 540 Lakhs	1 1 1
24	(i) Money as a unit of value (ii) Money as a medium of exchange (iii) Money as a store of value (iv) Money as a future payments.(any two explanation) 1 ½ x 2 = 3	3
25	Central bank acts as a financial advisor to the government. Keeps deposits makes payment	3
26	Government budget through taxation and expenditure removes inequalities of income. OR Fiscal deficit is the excess of total expenditure of government over sum of its revenue receipts and capital receipts during the fiscal year. Implications 1. Borrowing create problem of not only payment of interest but also repayment of loans 2. High fiscal deficit leads to inflationary condition in the economy.	3
27	Revenue expenditure do not make liabilities and do not cause reduction to the assets example tax and non-tax revenue Capital revenue cause reduction of assets and creates liabilities.eg recovery of loans, sale of public sector units, Borrowings.	4
28	Sources of demand for foreign exchange 2 marks Sources of supply of foreign exchange 2 marks	4
29	Y = C + I Y = 200 + 0.9Y = 3000 Y – 0.9Y = 200 + 3000 0.1 Y = 3200 Y = 3200/0.1 = 32000 Consumption C = 200 + 0.9Y = 200 + 0.9 (32000) = 28800 + 200 = Rs.29000 OR Equilibrium =Y = S = I 7000 = (-) 50 + 0.5Y 0.5Y = 7000 + 50 = 7050 Y = 7050/ 0.5 = 14100 Y = C + I 14100 = C + 7000 C 14100 – 7000 = 7100.	1 1 1 1 1 1 1 1 1 1

30	(i) No, because it is a transfer payment (ii) No, because it is earned from abroad. (iii) No, It is not in the eco territory of India. (iv) Yes, It is the normal resident of India 4 x 1 ½ = 6	6
31	Equilibrium output and Income is determined where planned spending is equal to the output.  <u>Disequilibrium condition :</u> 1) When planned spending > planned out put there will be more demand for goods and services so the firms will increase the output to the equilibrium level of out put 2) When planned spending <planned out put there will be unsold inventories with the firm so the firm will reduce the level of output to the equilibrium out put . OR The functional relationship between consumption and income is called consumption function or propensity to consume . C= $\overline{c}$ + by Consumption function schedule and diagram.	2 2 2 2 2 2

N.I	C	REMARK
0	60	
100	140	C<Y
200	220	
300	300	C=Y
400	380	C<Y
500	460	



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