KENDRIYA VIDYALAYA
SANGATHAN
REGIONAL OFFICE
HYDERABAD

QUESTION BANK MATERIAL
CLASS XII
ECONOMICS

PART-A  INTRODUCTORY MICRO ECONOMICS
PART-B  INTRODUCTORY MACRO ECONOMICS
Part A: Introductory Microeconomics

Unit 1: Introduction
Meaning of microeconomics and macroeconomics
What is an economy? Central problems of an economy: what, how and for whom to produce; concepts of production possibility frontier and opportunity cost.

Unit 2: Consumer’s Equilibrium and Demand
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), preferences of the consumer (indifference curve, indifference map) and conditions of consumer’s equilibrium.
Demand, market demand, determinants of demand, demand schedule, demand curve and its slope, movement along and shifts in the demand curve; price elasticity of demand - factors affecting price elasticity of demand; measurement of price elasticity of demand - (a) percentage-change method and (b) geometric method (linear demand curve); relationship between price elasticity of demand and total expenditure.
Unit 3: Producer Behaviour and Supply
Production function - Short-Run and Long-Run
Total Product, Average Product and Marginal Product.
Returns to a Factor
Cost: Short run costs - total cost, total fixed cost, total variable cost; Average cost; Average fixed cost, average variable cost and marginal cost-meaning and their relationships.
Revenue - total, average and marginal revenue - meaning and their relationships.
Producer's equilibrium-meaning and its conditions in terms of marginal revenue-marginal cost.
Supply, market supply, determinants of supply, supply schedule, supply curve and its slope, movements along and shifts in supply curve, price elasticity of supply; measurement of price elasticity of supply - (a) percentage-change method and (b) geometric method.

Unit 4: Forms of Market and Price Determination under Perfect Competition with simple applications.
Perfect competition - Features; Determination of market equilibrium and effects of shifts in demand and supply.
Other Market Forms - monopoly, monopolistic competition, oligopoly - their meaning and features.
Simple Applications of Demand and Supply: Price ceiling, price floor.

Part B: Introductory Macroeconomics

Unit 5: National Income and Related Aggregates
Some basic concepts: consumption goods, capital goods, final goods, intermediate goods; stocks and flows; gross investment and depreciation.
Circular flow of income; Methods of calculating National Income - Value Added or Product method, Expenditure method, Income method.
Aggregates related to National Income: Gross National Product (GNP), Net National Product (NNP), Gross and Net Domestic Product (GDP and NDP) - at market price, at factor cost; National Disposable Income (gross and net), Private Income, Personal Income and Personal Disposable Income; Real and Nominal GDP.
GDP and Welfare

Unit 6: Money and Banking
Money - its meaning and functions.
Supply of money - Currency held by the public and net demand deposits held by commercial banks.
Money creation by the commercial banking system.
Central bank and its functions (example of the Reserve Bank of India): Bank of issue, Govt. Bank, Banker's Bank, Controller of Credit through Bank Rate, CRR, SLR, Repo Rate and Reverse Repo Rate, Open Market Operations, Margin requirement.

Unit 7: Determination of Income and Employment
Aggregate demand and its components.
Propensity to consume and propensity to save (average and marginal).
Short-run equilibrium output; investment multiplier and its mechanism.
Meaning of full employment and involuntary unemployment.
Problems of excess demand and deficient demand; measures to correct them - changes in
government spending, taxes and money supply.

Unit 8: Government Budget and the Economy
Government budget - meaning, objectives and components.
Classification of receipts - revenue receipts and capital receipts; classification of expenditure -
revenue expenditure and capital expenditure.
Measures of government deficit - revenue deficit, fiscal deficit, primary deficit their meaning.

Unit 9: Balance of Payments
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.

Prescribed Books:
1. Statistics for Economics, Class XI, NCERT
2. Indian Economic Development, Class XI, NCERT
3. Introductory Micro Economics, Class XII, NCERT
4. Macroeconomics, Class XII, NCERT
5. Supplementary Reading Material in Economics, Class XII, CBSE

Note: The above publications are also available in Hindi Medium.
### Suggested Question Paper Design
#### Economics (Code No. 030)
#### Class XII (2015-16)
#### March 2016 Examination

**Marks: 100**

**Duration: 3 hrs.**

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Typology of Questions</th>
<th>Very Short Answer</th>
<th>Short Answer</th>
<th>Short Answer II</th>
<th>Long Answer</th>
<th>Marks</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Remembering- (Knowledge based) Simple recall questions, to know specific facts, terms, concepts, principles, or theories; identify, define, or recite, information</td>
<td>2</td>
<td>1</td>
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<td>25%</td>
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<td>2</td>
<td>Understanding- (Comprehension to be familiar with meaning and to understand conceptually, interpret, compare, contrast, explain, paraphrase, or interpret information)</td>
<td>3</td>
<td>2</td>
<td>1</td>
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<tr>
<td>3</td>
<td>Application- (Use abstract information in concrete situation, to apply knowledge to new situations; Use given content to interpret a situation, provide an example, or solve a problem)</td>
<td>3</td>
<td>1</td>
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<td>4</td>
<td>High Order Thinking Skills- (Analysis &amp; Synthesis- Classify, compare, contrast, or differentiate between different pieces of information, Organize and/or integrate unique pieces of information from a variety of sources)</td>
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<td>5</td>
<td>Evaluation- (Appraise, judge, and/or justify the value or worth of a decision or outcome, or to predict outcomes based on values)</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>10</td>
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</table>

| Total  | 10x1=10 | 6x3=18 | 6x4=24 | 8x6=48 | 100 (30) | 100% |

Note: There will be Internal Choice in questions of 3 marks, 4 marks and 6 marks in both sections (A and B). (Total 3 internal choices in section A and total 3 internal choices in section B).
### INTRODUCTION

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
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</thead>
<tbody>
<tr>
<td>1. Define economics.</td>
<td>Ans. Economics is making choices in the presence of scarcity.</td>
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<tr>
<td>3. Define macroeconomics.</td>
<td>Ans: Economic problems relating to economy as a whole. Eg. Aggregate demand</td>
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<tr>
<td>4. Why does an economic problem arise?</td>
<td>Ans: Due to the scarcity of resources and resources have alternative uses.</td>
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<td>5. List out the central problems of an economy and explain them.</td>
<td>Ans:</td>
</tr>
<tr>
<td>i. What to produce and in what quantities-</td>
<td></td>
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<tr>
<td>ii. How to produce - Related to the technique of production</td>
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<tr>
<td>a) Labour intensive technique</td>
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<tr>
<td>b) Capital intensive technique</td>
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<td>iii. For whom to produce - based on the functional distribution of income</td>
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<tr>
<td>6. What is meant by production possibility curve?</td>
<td>Ans: PPC shows the different combination of two goods which can be produced with given technology and resources.</td>
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<tr>
<td>7. What is the shape of the PPC?</td>
<td>Ans: It is concave to the origin.</td>
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<tr>
<td>8. What does the slope of PPC show?</td>
<td>Ans: Slope of PPC shows marginal opportunity cost.</td>
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<tr>
<td>9. Give one reason for rightward shift in PPC.</td>
<td>Ans: When resources are increased.</td>
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<td>10. In the case of unemployment does the PPC shift inside?</td>
<td>Ans: No. It does not shift i.e. only under utilization of resources.</td>
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<td>11. A lot of people died and many factories are destroyed because of a severe earth quake in a country. How will it affect the PPC of that country?</td>
<td>Ans: The PPC will shift inside as the resources are lost.</td>
</tr>
<tr>
<td>12. Define opportunity cost.</td>
<td>Ans: It is the next best alternative use of an input.</td>
</tr>
<tr>
<td>13. Define marginal opportunity cost or MRT (Marginal rate of transformation).</td>
<td>Ans: It refers to the amount of one commodity that has to be sacrificed in order to produce one extra unit of other commodity. It shows the slope of the PPC.</td>
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<td>14. Depict the following situations on a PPC.</td>
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<tr>
<td>a) Fuller utilization of resources</td>
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<td>b) Under utilization of resources</td>
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<td>c) Growth of resources</td>
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<td>UNIT-2 CONSUMER’S EQUILIBRIUM AND DEMAND</td>
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<td>----------------------------------------</td>
</tr>
<tr>
<td>1.</td>
<td>What is consumer’s equilibrium?</td>
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<td>Ans: It is defined as a situation when a consumer derives maximum satisfaction by consuming a commodity.</td>
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<td>2.</td>
<td>Define utility.</td>
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<td>Ans. Utility is the want satisfying power of a commodity.</td>
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<td>3.</td>
<td>Define Marginal Utility.</td>
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<td>Ans: Utility obtained from consumption of one additional unit of a commodity.</td>
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<td></td>
<td>$MU_n = TU_n - TU_{n-1}$</td>
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<td>4.</td>
<td>What are the two approaches to study consumer’s equilibrium?</td>
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<td>Ans: 1. Cardinal approach or utility approach-where utility is measurable.</td>
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<td>2. Ordinal approach or indifference curve analysis- where utility cannot be measured.</td>
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<td>5.</td>
<td>What are the conditions of consumer’s equilibrium in the case of single commodity?</td>
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<td>Ans: i. $\frac{MU_X}{MU_M} = P_X$</td>
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<td>ii. Law of diminishing marginal utility holds good.</td>
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<td>iii. Marginal utility of money remains constant.</td>
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<td>6.</td>
<td>A consumer consumes only two goods X and Y and is in equilibrium. Price of X falls. Explain the reaction of consumer through the utility analysis.</td>
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<td>Ans. The consumer will be in equilibrium when:</td>
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<td>$MU_X/P_X = MU_Y/P_Y$</td>
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<td>When price of X falls,</td>
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<td>$MU_X/P_X &gt; MU_Y/P_Y$.</td>
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<td>It means the MU from the last unit of money spent on X is more than MU from the last unit of money spent on Y.</td>
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<td>So the consumer will increase the consumption of X which will lead to fall in the MU of X. This process continues till</td>
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<td></td>
<td>$MU_X/P_X = MU_Y/P_Y$.</td>
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<td>7.</td>
<td>What is the relation between MU and TU?</td>
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<td>Ans: i. When MU is positive, TU rises.</td>
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<td>ii. When MU is zero, TU is maximum.</td>
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<td>iii. When MU is negative, TU falls.</td>
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<td>8.</td>
<td>State the law of diminishing marginal utility.</td>
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<td>Ans: It states that as more and more units of a commodity are consumed, MU derived from every additional unit declines.</td>
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<td>9.</td>
<td>What is a budget set?</td>
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<td>Ans: It is the collection of all combination of goods that a consumer can purchase from his given income at the prevailing market prices.</td>
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<tr>
<td>10.</td>
<td>Define a budget line.</td>
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<td>Ans: It is a curve which shows the combinations of two goods that a consumer can purchase when his entire income is spent, given the prices of two goods.</td>
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<td>Equation of the budget line:</td>
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<td>$P_1X_1 + P_2X_2 = M$</td>
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<td>11.</td>
<td>What is monotonic preference?</td>
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<td>Ans: A consumer prefers the bundle which has more of at least one commodity and no less of the other.</td>
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<td>12.</td>
<td>Define an indifference curve.</td>
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<td>Ans: It is a curve which shows the combination of two goods that yield equal level of satisfaction to a consumer.</td>
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<td>13.</td>
<td>Define an indifference map.</td>
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<td>Ans: Group of indifference curves.</td>
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<td>14.</td>
<td>Why is IC convex to the origin?</td>
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<td>Ans. Due to diminishing MRS (marginal rate of substitution).</td>
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</table>
15. What are the properties of the IC?
   Ans: i. It slopes downwards from left to right-If more of one good is consumed; the consumer has to reduce the consumption of the other good.
   ii. IC is convex to the origin due to diminishing MRS (marginal rate of substitution).
   iii. ICs do not intersect each other because the same combination of two goods cannot give two different levels of satisfaction.
   iv. Higher the IC, higher will be the level of satisfaction.

16. Define MRS(marginal rate of substitution)
   Ans: It is the amount of one commodity that has to sacrifice in order to consume one extra unit of other commodity.

17. What are the conditions of consumer’s equilibrium as per indifference curve analysis?
   (use diagram)
   Ans: i) \[ MRS_{XY} = \frac{p_x}{p_y} \]
   ii) Slope of the IC should be equal to slope of the budget line.
   iii) MRS must be diminishing.

18. What is individual demand?
   Ans. Demand for a commodity by a single consumer.

19. What is market demand?
   Ans: It is the summation of demand of all the individual buyers in the market.

    Ans; Higher the price, lower the quantity demanded and lower the price, higher will be the quantity demanded.

21. What is the demand schedule?
    Ans: It is a schedule which shows price of the commodity and the quantity purchased.

22. Explain the factors on which demand depends?
    Ans: i. Price of commodity- Higher the price, lower the quantity demanded and lower the price, higher will be the quantity demanded
        ii. Income of the individual consumer- higher the income, higher will be the demand for superior goods, higher the income, lower will be the demand for inferior goods.
        iii. Price of the related goods-
            a) Coffee and tea are the substitute goods.
            b) Higher the price of coffee, higher will be the demand for tea.
            c) Butter and bread are complementary goods- higher the price of butter, lower will be the demand for bread.
        iv. Taste and preferences- if the consumers are in favour of a particular commodity, the demand will be higher and vice versa.
    Note: Movement along the demand curve takes place due to the first factor.
    Shift of the demand curve takes place due to the 2nd, 3rd and 4th factors.

23. What are the reasons behind the downward sloping of the demand curve?
    OR
    Why there is inverse relationship between price and demand for a good?
    OR
    Why with an increase in price of a good, quantity demanded for it falls
    Ans: 1. Due to the operation of law of diminishing marginal utility.
         2. Due to price effect
         3. Due to substitution effect.

24. Give two causes of rightward shift in demand curve?
    Ans. i) Decrease in price of complementary goods.
         ii) Increase in price of substitute goods.

5. What causes upward movement along a demand curve?
   Ans. Increase in price of commodity.

6. Distinguish between change in the quantity demanded and change in demand.
   Ans: | Change in the quantity demanded | Change in demand |
       | i. Due to change in price         | ii. Due to other factors affecting demand but not price. |
       | ii. Movement along the demand curve takes place. | iii. Shift of the demand curve takes place. |
       | iii. Refers to Extension and contraction of demand | iv. Refers to Increase and decrease in demand |
7. Give the meaning of inferior good and superior good.

**Inferior goods**
These are those goods in which case when income of the consumer rises, the demand for it falls and vice versa.
For example: coarse rice

**Superior goods**
These are those goods in which case when income of the consumer rises, the demand for it also rises and vice versa.
For example: Fine rice

8. X and Y are the substitute goods. What happens to the demand of Y if there is an increase in the price of X?
   Ans: Increases.

9. X and Y are the complementary goods. What happens to the demand of Y if there is an increase in the price of X?
   Ans: Decreases

10. Write formula for measuring price elasticity of demand.
    Ans: \( E_d = \frac{\Delta Q}{\Delta P} \times \frac{P}{Q} \)

11. Draw the diagrams of demand curve with different price elasticities. Any four.

12. Write any two factors affecting price elasticity of demand?
    i) Time Period ii) Availability of Substitutes.

13. Explain the methods of measuring the elasticity of demand.
    Ans: 1. Proportionate method: \( E_d = \frac{\Delta Q}{\Delta P} \times \frac{P}{Q} \)
    2. Expenditure method:
       i. \( P \uparrow \) - Total expenditure \( \downarrow \)  \( P \downarrow \) - Total expenditure \( \uparrow \) \( ed > 1 \)
       ii. \( P \uparrow \) - Total expenditure \( \uparrow \)  \( P \downarrow \) - Total expenditure \( \downarrow \) \( ed < 1 \)
       iii. \( P \uparrow \) - Total expenditure  \( P \downarrow \) - Total expenditure \( ed = 1 \)
    3. Geometric method: \( E_d = \frac{\text{Lower segment of the demand curve}}{\text{Upper segment of the demand curve}} \)

14. 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/- unit. Calculate its quantity demanded at the new price.
    Ans: 56 units (Use proportionate method)

UNIT-3 PRODUCER BEHAVIOUR AND SUPPLY

1. What is a production function? What are the different types of production function?
   Ans: Production function refers to the technological relationship between physical inputs and physical output of a firm.
   There are 2 types of production function-
   i. Short run production function—Here ratio of inputs changes
   ii. Long run production function—Here ratio of inputs remains constant

2. Define marginal product?
   Ans: Output produced by one additional unit of input (L).
   \( MP = TP_n - TP_{n-1} \)

3. Define average product.
   Ans: It is the output per unit of variable input.
   \( APP = \frac{TP}{\text{Units of variable factor}} \)
4. State the law of Variable proportion.
   Ans: In short period, when only one variable factor is increased, keeping other factors constant, the TP initially increases at an increasing rate, then increases at a diminishing rate and finally declines. (Draw the diagram)

   Relationship between TP and MP
   MP initially increases, TP also increases.
   When MP falls but remains positive, then TP increases at a diminishing rate.
   When MP is zero, TP is maximum.
   When MP becomes negative, TP starts falling.

5. Explain the relation between AP and MP.
   Ans:
   i. AP ↑ when MP > AP
   ii. AP ↓ when MP < AP
   iii. AP is at its maximum when MP = AP.

6. What is meant by returns to a factor? What are the reasons behind the increasing and decreasing returns to a factor?
   Ans: Returns to a factor:
   In short period, when only one variable factor is increased, keeping other factors constant, the TP initially increases at an increasing rate, then increases at a diminishing rate and finally declines.
   Reasons behind increasing returns:
   Due to the better combination of inputs.
   Due to specialization.
   Reasons behind diminishing returns:
   Due to imperfect combination between fixed and variable factors.
   Due to over utilization of fixed factors.

7. Fill in the blanks:
   1. Increasing returns to a factor occurs when TP increases at an increasing rate.
   2. Diminishing returns to a factor occurs when TP increases at a diminishing rate.

8. Distinguish between fixed factors and variable factors.

<table>
<thead>
<tr>
<th><strong>Fixed factor</strong></th>
<th><strong>Variable factor</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The factor of production whose</td>
<td>The factor of production whose</td>
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<tr>
<td>quantity remains fixed with the</td>
<td>quantity changes with the change in</td>
</tr>
<tr>
<td>change in the level of output.</td>
<td>the level of output.</td>
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9. Define the following: i) Marginal cost ii) Explicit cost iii) Implicit cost
   Ans.  
   i. Marginal cost- Cost of producing one additional unit of commodity.
       \[ MCn = TVCn - TVCn - 1 \] (U shaped curve)
   ii. Explicit cost- Actual payments made on factors of production. Eg: wages to labourers
   iii. Implicit cost- cost of the self supplied factors of production. Eg: rent of own building.

10. Define the following: Fixed cost, Variable cost, Total cost
    Ans.
    i. Fixed cost- cost which remains fixed with the level of output. Eg: minimum telephone bill.
    ii. Variable cost- cost which changes with the level of output.
    iii. Total cost- it is the total expenditure incurred on the production.
        \[ TC = TFC + TVC \] (Inverse S shaped curve- increases with output)
        \[ TVC = TC - TFC \] (Inverse S shaped curve- increases with output, starts from the origin)
        \[ TFC = TC - TVC \] (Horizontal to x-axis)
11. Define the following: Average cost, average variable cost, average fixed cost
   Ans.  
   i. Average cost- cost per unit of output, i.e. TC/Q (U shaped curve)  
      ii. AVC = TVC / Q – it is U shaped  
      iii. AFC = TFC / Q – it is a rectangular hyperbola

12. What is the relation between AC and MC?
   Ans: i. AC ↑ when MC > AC  
      ii. AC ↓ when MC < AC  
      iii. AC is at its minimum when MC = AC  
           (Start with AC and end with AC)

13. Why is Ac curve U shaped in the short run?
   Ans. Due to increasing and diminishing returns to factor

14. Draw the diagram of TC, TVC and TFC.
   Ans

15. Will there be fixed cost when the level of output is zero?
   Ans: Yes.

16. TOTAL REVENUE – Total sale receipts
   TR = qxp  
   AR = Receipt per unit of output sold.  
   AR = TR/Q  
   MR = Revenue received by selling an additional unit.  
   MRn = TRn – TRn – 1

17. What is the relationship between AR and MR in perfect competition and imperfect competitive markets?
   AR and MR  
   In perfect competition – AR=MR. This is due to fixed price.  
   In Monopoly and monopolistic competition

18. Show that AR=Price
   Ans: AR = \( \frac{TR}{Q} \)  
   TR = P x Q  
   AR = \( \frac{P \times Q}{Q} \)  
   = P (Q gets cancelled)  
   Therefore, AR=P

19. What is the relation between TR and MR?
   Ans: TR increases as long as MR is positive.  
   TR will be maximum when MR is zero  
   TR falls when MR is negative.

Revenue

Revenue
20. Define producer’s equilibrium and explain when will a producer be in equilibrium using MC-MR approach?

Ans: A producer will be in equilibrium when he gets the maximum profit.

The producer will be in equilibrium when the following conditions are satisfied.

a) \( MC = MR \)

b) \( MC \) should be cutting the MR curve from below. \( MC > MR \) after the equilibrium point.

c) In above diagram, the producer will be in equilibrium at \( OQ_1 \) level of output.

21. Define supply

Ans. It refers to the quantity of a commodity that is supplied at a price in a given market during a given period of time.

22. What is individual supply?

Ans. Supply of a commodity by a single firm.

23. Define market supply?

Ans. Sum of individual supplies.

24. What is the shape of supply curve?

Ans. Upward sloping.

25. What causes downward movement along a supply curve?

Ans. Decrease in price of commodity.

26. Distinguish between change in the quantity Supplied and change in supply.

Ans:

<table>
<thead>
<tr>
<th>Change in the quantity supplied</th>
<th>Change in supply</th>
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<tbody>
<tr>
<td>Due to change in price</td>
<td>Due to other factors but not price.</td>
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<tr>
<td>Movement along the curve takes place.</td>
<td>Shift of the curve takes place.</td>
</tr>
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<td>Refers to Extension and contraction of supply</td>
<td>Refers to Increase and decrease in supply</td>
</tr>
</tbody>
</table>

27. Explain the factors on which the supply depends. Any four.

Ans:

a) Price of the commodity- higher the price, higher will be the quantity supplied. Lower the price, lower will be the quantity supplied.(Law of supply)

b) Technology- Technological progress will increase the supply and the supply curve shifts to the right.

c) Price of the related goods- coffee and tea are substitute goods. Higher the price of coffee, lower will be the quantity supplied of tea.

d) Price of inputs- higher the price of inputs, lower will be the quantity supplied and vice versa.

e) Excise rate- higher the taxes, lower will be the quantity supplied and vice versa.

(Note: Due to point ‘a’, the supply curve moves along, due to ‘b’, ‘c’, ‘d’ and ‘e’ the shift of supply curve takes place.)

28. What is elasticity of supply?

Ans. It is the degree of responsiveness of quantity supplied to change in its price.
29. Draw supply curves showing different price elasticities of supply. Any four.

<table>
<thead>
<tr>
<th>Price Elasticity</th>
<th>Graph</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perfectly elastic</td>
<td><img src="image" alt="Perfectly elastic supply curve" /></td>
</tr>
<tr>
<td>E_s = 0</td>
<td><img src="image" alt="Elasticity at zero" /></td>
</tr>
<tr>
<td>E_s = 1</td>
<td><img src="image" alt="Elasticity of 1" /></td>
</tr>
<tr>
<td>E_s &lt; 1</td>
<td><img src="image" alt="Elasticity less than 1" /></td>
</tr>
<tr>
<td>E_s &gt; 1</td>
<td><img src="image" alt="Elasticity greater than 1" /></td>
</tr>
</tbody>
</table>

30. Supply curve is upward sloping beginning from positive range of X axis. What is its price elasticity?
Ans. Inelastic supply.

31. What causes leftward shift in supply curve?
Ans. Increase in taxes or increase in price of inputs.

32. Write any two factors affecting price elasticity of supply?
Ans. Time period cost of production, nature of the good.

33. Mention any six factors affecting the supply curve of the commodity.
Ans.

<table>
<thead>
<tr>
<th>Factor</th>
<th>How it affects supply</th>
<th>Shift of the curve (Left/Right)</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Rise in the Price of Inputs</td>
<td>Falls</td>
<td>Left</td>
</tr>
<tr>
<td>ii. The fall in the price of inputs</td>
<td>Rises</td>
<td>Right</td>
</tr>
<tr>
<td>iii. Rise in the excise tax</td>
<td>Falls</td>
<td>Left</td>
</tr>
<tr>
<td>iv. Fall in the excise tax</td>
<td>Rises</td>
<td>Right</td>
</tr>
<tr>
<td>v. Increase in the number of firms</td>
<td>Rises</td>
<td>Right</td>
</tr>
<tr>
<td>vi. Technological progress</td>
<td>Rises</td>
<td>Right</td>
</tr>
<tr>
<td>vii. Backward technology</td>
<td>Falls</td>
<td>Left</td>
</tr>
</tbody>
</table>

UNIT - 4 FORMS OF MARKET AND PRICE DETERMINATION UNDER PERFECT COMPETITION

On what basis markets can be classified? Any two points
Ans: 1. Number of buyers and sellers
2. Nature of the product
3. Entry and Exit of firms

1. Compare various market situations. Any six points of comparison
Ans:

<table>
<thead>
<tr>
<th>Perfect competition</th>
<th>Monopoly</th>
<th>Monopolistic Competition</th>
<th>Oligopoly</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is a market where there are a large number of buyers and sellers.</td>
<td>It is a market situation in which there is a single seller</td>
<td>It is a market situation where there are a large number of sellers but less when compared to perfect competition.</td>
<td>It is a market situation where there are a few sellers.</td>
</tr>
<tr>
<td>Homogeneous product is produced</td>
<td>No close substitutes for the product.</td>
<td>Differentiated product is produced</td>
<td>A product may be homogeneous or differentiated</td>
</tr>
<tr>
<td>Entry and exit of firms</td>
<td>Restricted entry</td>
<td>Free entry and exit</td>
<td>Barriers to entry of the firms</td>
</tr>
<tr>
<td>Perfect knowledge of the market conditions is there</td>
<td>Imperfect knowledge of the market conditions</td>
<td>Imperfect knowledge of the market conditions</td>
<td>Imperfect knowledge of the market conditions</td>
</tr>
<tr>
<td>Uniform price prevails in the market</td>
<td>Price is not uniform due to price discrimination</td>
<td>Price is not uniform due to Product differentiation</td>
<td>Price is indeterminate</td>
</tr>
<tr>
<td>Selling costs are not required</td>
<td>Selling costs are not required</td>
<td>Selling costs play an important role.</td>
<td>Selling costs play an important role</td>
</tr>
<tr>
<td>There is perfect mobility of factors of production.</td>
<td>There is imperfect mobility of factors of production.</td>
<td>There is imperfect mobility of factors of production</td>
<td>There is imperfect mobility of factors of production</td>
</tr>
</tbody>
</table>
2. What is product differentiation?
   Ans: It means, close substitutes offered by different producers to show how their product differs. Differentiation can be in colour, packing, or brand. This is observed mainly in monopolistic competition.

3. What do you mean by patent rights?
   Ans: Exclusive rights granted to a company to produce a product.

4. What is price discrimination?
   Ans: It refers to the act of charging different prices from different customers for the same product.

5. Why is AR=MR in perfect competition?
   Ans: Due to fixed price as homogeneous goods are produced.

6. What is the implication of homogenous product in perfect competition?
   Ans: Implication:
   Products are uniform in nature.
   Products are perfect substitutes of each other.
   No seller can charge a higher price for the product. Uniform price prevails in the market.

7. Why a firm under perfect competition is a price taker but not a price maker?
   Ans: It is because the price is determined by the industry based on the market forces of demand and supply.

8. Why the number of firms is less in oligopoly?
   Ans: Due to barriers to entry.

9. What do you mean by Collusive and Non collusive oligopoly?
   Collusive oligopoly
   - Where firms cooperate with each other in the case of price and output decisions.
   - Mutual agreements are made.

   Non collusive oligopoly
   - Where firms compete with each other in price and output decisions.
   - Price wars take place.

10. **DETERMINATION OF PRICE AND MARKET EQUILIBRIUM.**

    Define market equilibrium.
    Ans: It is that state where the quantity demanded is equal to quantity supplied.

    Define equilibrium price.
    Ans: It is that price where market demand is equal to market supply.

12. How is the equilibrium price determined under PC? Explain with the help of a diagram and a table.
    Ans: Under perfect competition the equilibrium price is determined by the industry based on the market forces of demand and supply.

    | Price (In rupees) | Quantity demanded | Quantity supplied | Remark |
    |------------------|-------------------|-------------------|--------|
    | 1                | 5                 | 1                 | D>S    |
    | 2                | 4                 | 2                 | D>S    |
    | 3                | 3                 | 3                 | D=S Equilibrium |
    | 4                | 2                 | 4                 | D<S    |
    | 5                | 1                 | 5                 | D<S    |

    Here the equilibrium price determined is `3

    The market is in equilibrium at OP price and equilibrium quantity determined is OQ because D=S.
13. What happens to equilibrium price if demand increases?  
   Ans. Equilibrium price increases

14. Market for a good is in equilibrium. There is an increase in demand for the good. Explain the chain of effects of this change.  
   Ans(I) Increase in demand shifts the demand curve to right leading to excess demand EE₁.  
   (II) This results in competition among the buyers leading to a rise in price. This in turn leads to fall in the quantity demanded and rise in the quantity supplied.  
   (III) These changes continue till the market is in equilibrium i.e. D=S.

15. How are the equilibrium price and the quantity affected when income of the consumer’s increase?  
   Ans: Introductory explanation would be the same.  
   Superior goods  
   1. When there is an increase in the income of the consumer, the demand for superior goods increases (explanation of Q.15 is applicable)  
   Inferior goods  
   The demand for inferior goods decreases (2 diagrams to be made separately).  
   The demand curve shifts to the left. It shows that at OP price new quantity demanded is OQ₂ which is less than the supply. The excess supply results in competition among sellers leading to a fall in price. This result in rise in the quantity demanded and a fall in the quantity supplied. These changes continue till we reach the new equilibrium price OP₁.

**SAMPLE QUESTIONS BASED ON THE CONCEPT**

16. Market for a good is in equilibrium. There is a simultaneous decrease both in demand and supply but there is no change in market price. Explain using a diagram.  
   Hint: Distance between DD and D₁D₁ should be same as the distance between SS and S₁S₁.

17. Market for a good is in equilibrium. Explain the chain of reactions in the market if the price is  
   a) Higher than the equilibrium price
   b) Lower than the equilibrium price  
   Hint: For ‘a’ concept of price floor to be used and For ‘b’ concept of price ceiling to be used (Refer Q.19)

**SIMPLE APPLICATIONS OF DEMAND AND SUPPLY.**

18. Distinguish between price floor and price ceiling.  
   **Price Floor**  
   - It is fixed by the government above the equilibrium price
   - It leads to excess supply  
   - It is aimed at helping the sellers  
   **Price ceiling**  
   - It is fixed by the government below the equilibrium price
   - It leads to excess demand and black marketing  
   - It is aimed at helping the consumers from the forces of demand and supply.
### MULTIPLE CHOICE QUESTIONS

#### INTRODUCTION

1. Micro economics deals with the economic behavior of  
   a) Firm b) an economy c) Regions of a country d) none of the above.  
   (a) Firm

2. Macro economics deals with the economic functions of  
   a) central bank b) government c) employment situation of a country d) all  
   d) all

3. The central problem of ‘for whom’ refers to the distribution of product to  
   a) Rich and poor b) users c) Different sections of the society d) between public and private sectors  
   c) Different sections of the society

4. Opportunity cost refers to the value of the opportunity  
   a) To be available in future b) Available in the past  
   c) Actually availed at present d) Could be availed at present as a second alternative  
   d) Could be availed at present as a second alternative

5. A PPC is concave shaped due to  
   a) diminishing MOC b) increasing MOC c) Constant MOC d) none  
   b) increasing MOC

6. A typical PPC shows  
   a) The actual output the nation is producing b) the maximum output the nation can produce for all times to come  
   c) The minimum output the nation can produce d) The potential output of the nation from the given resources at present.  
   d) The potential output of the nation from the given resources at present.

#### CONSUMER’S EQUILIBRIUM

1. Additional utility derived from the consumption of an additional unit of a commodity is called  
   a) Average utility b) Total utility c) Marginal utility d) Average product  
   c) Marginal utility

2. What happens to MU when TU is maximum  
   a) MU is zero b) MU is negative c) MU falls d) MU remains the same  
   a) MU is zero

3. At what rate TU increases when MU is diminishing  
   a) diminishing rate b) increasing rate c) constant rate d) none  
   a) diminishing rate

4. ________ measures the slope of IC  
   a) budget line b) MRS c) MRT d) none  
   d) none

5. For consumers equilibrium to be stable the requirement is  
   a) constant MRS b) increasing MRS c) diminishing MRS d) none  
   c) diminishing MRS

6. Ram buys Pizza & Coke. The NU of last piece of Pizza is 80 utils and of last sip of Coke is of 40 utils. The price of Pizza is Rs 80 and of Coke is Rs20. This means that Ram is buying  
   a) more pizza and less coke b) more coke and less Pizza c) both at optimal level d) both at same quantity  
   d) both at same quantity

#### DEMAND

1. How are goods X and Y related when, an increase in the price of X leads to a rise in the quantity demanded of Y.  
   a) complementary goods b) Substitute goods c) Inferior good d) none  
   a) complementary goods
b) Substitute goods

2. Which of the following pairs represent complementary goods
   1) Car and petrol 2) bread and butter 3) coffee and tea.
   a) 1   b) 1&2  c) 3  d) 1&3
   b) 1&2

3. The air fare was slashed down by the XYZ airlines. This led to a great demand in the air travel.
   In this case there will be
   a) movement along the curve  b) Right ward shift of the demand curve  c) left ward shift of the demand curve
d) all of the above
   a) movement along the curve

4. Inferior goods are those whose income effect is
   a) positive  b) negative  c) zero  d) none
   b) negative

5. The demand function of a good X is given as Dx = 12 - 2Px where Px stands for price. The demand at price of Rs
   2 will be
   a) 6  b) 8  c) 3  d) 12
   b) 8

6. What is the elasticity of demand, when the demand curve is vertical to the X axis?
   a) zero  b) one  c) >1  d) <1
   a) zero

7. Electricity has many uses. Therefore the Ed of it is
   a) high  b) less  c) zero  d) none
   a) high

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PRODUCER BEHAVIOUR AND SUPPLY

1. When MP is zero
   a) TP increases  b) TP is maximum  c) TP is falling  d) none
   b) TP is maximum

2. The period of time in which the plant capacity can be varied is known as
   a) short run  b) long run  c) a&b  d) none
   d) none

3. Identify the phase in which TP increases at an increasing rate and MP also increases
   a) Increasing returns to a factor  b) Diminishing returns to a factor  c) negative returns to a factor  d) none
   a) Increasing returns to a factor

4. A rational producer always aims to produce in the ------------------------- phase of law of variable proportions.
   a) I  b) II  c) III  d) I & II
   b) II

5. Mazaa and Slice are substitutes to each other. A rise in the price of Mazaa leads to ------------------
   a) a fall in the supply of Slice  b) a fall in the demand of Slice  c) a&b  d) none
   a) a fall in the supply of Slice

6. Backward technology may lead to ------------------------
   a) rise in the supply  b) fall in the supply  c) rise in the demand  d) none
   b) fall in the supply

7. Which of the following indicates the fixed cost
   a) Minimum electricity bill  b) cost of raw material  c) wages of daily workers  d) all
   a) Minimum electricity bill
8. When MC curve cuts the AC curve
   a) AC = MC  b) AC < MC  c) AC > MC
   a) AC = MC

9. At a particular level of output, that MC < MR. How will a producer maximize his profit?
   a) Decreases production  b) increases production  c) No change in production
   b) increases production

10. Under perfect competition producer equilibrium can be achieved at a point where
    a) MR = MC  b) MR = MC = AR  c) MC < MR
    b) MR = MC = AR

FORMS OF MARKET PRICE DETERMINATION

1. Equilibrium price does not change even after changes in demand and supply takes place. Choose the right answer.
   a) Demand increase more than supply  b) Supply increases more than demand  c) Both change in the same proportion  d) None
   c) Both change in the same proportion

2. What will happen if the price prevailing in the market is above the equilibrium price
   a) leads to excess demand  b) leads to excess supply  c) Black marketing
   b) leads to excess supply

3. In the city of Mumbai the rents are soaring high. In this case the policy to be adopted is
   a) price floor  b) price ceiling  c) mixed economy
   b) price ceiling

PRACTICE QUESTIONS BASED ON MICRO ECONOMICS

1) Why the problem of choice arises in an economy?
2) What are the two factors which define scarcity?
3) What do you mean by a production possibility curve?
4) Draw a production possibility curve. With the help of table and fig.
5) If we move from one point to another on PPC, what does it mean?
6) Why the production at a point towards left hand side from PPC is no desirable?
7) What do you mean by a point below PPC?
8) If number of skilled labour increases in the country, how will it affect PPC?
9) Define utility. What is meant by total utility & marginal utility?
10) State the law of Diminishing marginal utility. With the help of table and fig.
11) What is consumer’s equilibrium? Explain under single commodity.
12) State the condition of consumer’s equilibrium?
13) State the relationship between demand for a commodity and its price?
14) What are the factors that affect only market demand for the goods?
15) What is meant by one good being substitute & complement another?
16) What are inferior goods & normal goods, opportunity cost?
17) State the difference between changes in quality demanded and change in demand
18) State the difference between decrease in demand and contraction of demand?
20) Explain the law of demand.
21) Explain the total expenditure method of finding the elasticity of demand.
22) How will you measure price elasticity of demand at a point on the demand curve? Give formula.
23) What is production? Transformation of inputs into output what is called for that?
24) What are variable factors? In which period all the factors can be changed?
25) What are fixed factors? What is production function?
26) What is the Total Product of an input & MPP?
27. When only one factor is increased and all other inputs are held constant. Examine the effects on output. What happens with the marginal product?

28. Show the relationship between MP and AP of an Output with the help of diagram.

29. What is called for all the factors when they are variable with the change in the level of output in the long run?

30. What do you mean by Returns to a factor?

31. What factors lead diminishing returns to factor and increasing return to factor?

32. Give two examples of fixed cost and variable cost.

33. Define variable cost & fixed cost

34. Why the variable cost curve is sloping upward?

35. What is marginal cost? Why is MC curve in short-run U-shaped?

36. Why the TFC curve is parallel to the X-axis?

37. Show the relationship between MC and AC with the help of a diagram.

38. What is revenue? Define MR, TR, AR

39. Explain the relationship between TR and MR in the non competitive market. Use diagram

40. What is producer's equilibrium?

41. When a producer is said to be in equilibrium situation? What is Break Even Point?

42. Explain the conditions of producer's equilibrium through MR & MC approach. Use a diagram.

43. Define Supply. Explain the law of Supply with the help of a diagram.

44. What are the factors affecting Supply.

45. Define Supply Schedule and a Supply Curve.

46. What is the difference between change in supply and change in quantity supplied?

47. Distinguish between increase in supply and extension of supply?

48. Define price elasticity of supply.

49. Draw supply curves with price elasticity less than 1, =1 and more than 1

PART- B- INTRODUCTORY MACRO ECONOMICS

UNIT 5 – NATIONAL INCOME AND RELATED AGGREGATES

SOME BASIC CONCEPTS: CONSUMPTION GOODS, CAPITAL GOODS, FINAL GOODS, INTERMEDIATE GOODS, STOCKS AND FLOWS, GROSS INVESTMENT AND DEPRECIATION.

1) Differentiate between consumption goods and capital goods.

<table>
<thead>
<tr>
<th>CONSUMPTION GOODS</th>
<th>CAPITAL GOODS</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. These are those goods which are consumed by the ultimate consumers to satisfy their wants directly. These goods are not used for the production of other goods.</td>
<td>I. These are those goods which are used in the process of production for several years and which are of high value.</td>
</tr>
<tr>
<td>II. These goods do not help in adding the production capacity.</td>
<td>II. These goods help in production of other goods.</td>
</tr>
<tr>
<td>III. For example: pen, pencil, radio, TV etc. purchased by households.</td>
<td>III. These goods help in adding the production capacity.</td>
</tr>
<tr>
<td></td>
<td>IV. For example: plant and machinery, tools and implement etc.</td>
</tr>
</tbody>
</table>

2) Differentiate between final goods and intermediate goods.

4
3) Explain how the following goods can act as a Final good-(Consumption goodsCapital goods) &Intermediate goods a) Car b) Refrigerator

<table>
<thead>
<tr>
<th>Product</th>
<th>Final Goods</th>
<th>Intermediate Goods</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Car</td>
<td>If purchased by a consumer household</td>
<td>If purchased by a government for military purpose OR if purchase by a car dealer for resale.</td>
</tr>
<tr>
<td>b) Refrigerator</td>
<td>If purchased by a consumer household</td>
<td>If purchased by a shopkeeper for selling cold drinks</td>
</tr>
</tbody>
</table>

4) Differentiate between stock and flow.

<table>
<thead>
<tr>
<th>Stock</th>
<th>Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Stock means that quantity of an economic variable which is measured at a particular point of time. ii. Stock has no time dimension. iii. Example: a. Wealth b. Capital c. Population of a country</td>
<td>i. Flow is that quantity of an economic variable which is measured during the period of time. ii. Flow has time dimension – like per hour, per day, per month and per year. iii. Examples: a. Income of household b. Consumption expenditure of household c. Exports and imports</td>
</tr>
</tbody>
</table>

5) State whether the following are stock/flow variables and give reasons.


i) Money supply is stock because it is measured at a point of time. ii) Savings is flow because it is measured during a period of time. iii) Gross domestic product is a flow because it is measured during a period of time. iv) Foreign assets is stock because it is measured at a point of time. v) Flow concept. It relates to a period of time. vi) Flow concept. It relates to a period of time.

6) Differentiate between gross investment and net investment.

Gross investment - It is the addition made to the stock of capital goods such as structures, equipments or inventories during a given period of time. Net investment- It is the .addition made to the stock of capital goods such as structures, equipments or inventories during a given period of time less depreciation. Net investment= Gross investment- depreciation.

7) Define depreciation.

It is the value of the existing capital stock that has been consumed or used up in the process of producing output.
8) What do you mean by domestic territory?

- Domestic territory includes the following points.
  i) Political boundary of a country including its territorial waters.
  ii) Ships and Aircrafts operated by residents of a country.
  iii) Shipping vessels, Oil and Natural gas, floating platforms operated by the residents of a country.
  iv) Embassies, consulates and military establishments of a country located abroad.

9) Define normal resident.

- A normal resident, whether a person or an institution, is one whose centre of economic interest lies in the economic territory of the country in which he lives.

CIRCULAR FLOW OF INCOME, METHODS OF CALCULATING NATIONAL INCOME- VALUE ADDED OR PRODUCT METHOD, EXPENDITURE METHOD, INCOME METHOD

10) What is meant by circular flow of income?

- Circular flow of income: It refers to the flow of money, income or the flow of goods and services across different sectors of the economy in a circular form.

11) What are the two types of circular flow of income?

- The two types of circular flow of income are real flow and money flow.

12) What do you mean by real flow?

- Flow of income occurs in the form of goods and services are called real flow, e.g., households rendering their factor services to the producers and in return producers offering final goods and services to the households.

13) What do you mean by money flow?

- Flow of income in case there is a flow of money value from one sector to the other is called money value, e.g., producers make factor payments to the households and households make payments to the producers for the purchase of goods and services.

14) Differentiate between injections and leakages in the circular flow of income.

- Injections refer to the addition of value in the process of circular flow. This causes a positive multiplier effect on the level of income and employment. For example- consumption expenditure by the government, investment expenditure by the government, export etc.

- Leakages refer to the loss of value in the process of circular flow. This causes a negative multiplier effect on the level of income and employment. For example- savings, taxation imports etc.

15) What do you mean by product market?

- Market for goods and services is known as product market.

16) What do you mean by factor market?

- Market for factors of production is known as factor market.

17) Draw a picture showing circular flow of income in a two sector economy without financial system?

- Circular Flow of Income in Two Sector Economy without Financial System

18) Draw a picture showing circular flow of income in a two sector economy with financial system?
19) Draw a picture showing circular flow of income in a three sector economy with financial system?

20) Draw a picture showing circular flow of income in a four sector economy with financial system?

21) Name any two methods involved in the estimation of national income.

22) Briefly outline the steps involved in the estimation of national income by income method.

23) Briefly outline the steps involved in the estimation of national income by expenditure method.
The following are the main steps involved in expenditure method

i) **First Step**: Identification of Economic units incurring final expenditure.

ii) **Second Step**: Classification of final expenditure as a) Private final consumption expenditure b) Government final consumption expenditure c) Gross investment d) Net exports. The sum total of all the above final expenditures gives GDP_{MP}.

iii) **Third Step**: Depreciation is deducted from GDP_{MP} to get NDP_{MP}.

iv) **Fourth Step**: Net indirect taxes are deducted from NDP_{MP} to get NDP_{FC} which is equal to domestic income.

v) **Fifth Step**: Net factor income from abroad is added to net domestic income to get national income.

24) **Briefly outline the steps involved in the estimation of national income by value added method.**

Value added method is that method which measures the contribution of each producing enterprise to production in the domestic territory of the country.

i. **First Step**: involves classification of productive enterprises into three categories (a) Primary sector (b) secondary sector (c) tertiary sector.

ii. **Second Step**: value of output (of a producing unit) is determined by multiplying the quantity of the products by its market price.

iii. **Third Step**: Gross value added is estimated by deducting the intermediate consumption from the value of output.

iv. **Fourth Step**: Depreciation is deducted from gross value added to get net value added.

v. **Fifth Step**: Net indirect taxes are deducted from net value added at market price to get net value added at factor cost which is equal to domestic income.

vi. **Sixth Step**: Net factor income from abroad is added to net domestic income to get national income.

25) **Give the different components of domestic factor income.**

The different components of domestic factor income are as follows

i. Compensation of employees  
ii. Operating surplus  
iii. Mixed income of self-employed

26) **What do you mean by double counting? How it can be avoided?**

The counting of the value of the commodity more than once in the estimation of GDP is called double counting. This leads to over estimation of the value of goods and services produced.

To avoid the problem of double counting two methods are used

1. Final output method: In this method only the money value of final goods and services is considered.  
2. Value added method: Total value added at each stage of production is included.

27) **What do you mean by value added?**

It is the difference between the value of output and intermediate consumption.

Value added= value of output- intermediate consumption

28) **What do you mean by value of output?**

It is the addition of value of sales and change in stock.

Value of output=Sales + Change in stock

29) **Define change in stock.**

It is the difference between closing stock and opening stock.

Change in stock=Closing stock-Opening stock

30) **Explain any four precautions that have to be undertaken while estimating national income by income method.**

Any four.

Precautions that should be taken while estimating national income by income method:

i. **Only factor incomes** should be taken into account. Transfer incomes (all types such as scholarship facilities, unemployment allowances, old age pension etc) should not be included because it doesn’t lead to increase in the flow of goods and services in the economy. These are one sided payments or unilateral payments.

ii. **Value of production for self-consumption** should be included. For ex. Imputed rent of owner occupied houses. Although explicitly he does not incur any expenditure, implicitly he is making payment of rent to himself. Since the house is producing a service, the imputed value...
of this service should be included.

iii. Income obtained from sale of second hand goods should not be included because its value was already included in the year in which it was produced. It doesn’t lead to increase in the flow of goods and services.

iv. Money obtained on the basis of sale of shares/bonds (old / new) should not be included because they are just transfer of ownership titles. It doesn’t lead to increase in the flow of goods and services.

v. Income from illegal activities like smuggling, black marketing; gambling etc should not be included as it doesn’t lead to increase in the flow of goods and services.

31) Explain any four precautions that have to be undertaken while estimating national income by expenditure method.

- Precautions that should be taken while estimating national income by expenditure method:
  
  i. **Expenditure incurred only on final goods and services**: - are to be taken into account. To avoid double counting expenditure incurred on all intermediate goods and services should be excluded.
  
  ii. **Expenditure on all transfer payments**: - such as scholarship facilities unemployment allowances, old age pension etc. should not be included because it doesn’t lead to increase in the flow of goods and services in the economy. These are one sided payments or unilateral payments.
  
  iii. **Expenditure incurred on the purchase of second hand goods**: - should not be included because its values are already included in the year which it was produced.
  
  iv. **Expenditure incurred on the purchase of shares/bonds**: - (new / old) should not be included because they are just transfer of ownership title. It doesn’t lead to increase in flow of goods and services.

32) Explain any four precautions that have to be undertaken while estimating national income by value added method.

- i) **Value of production for self-consumption should be included.**
  
  For ex. Imputed rent of owner occupied houses. Although explicitly he does not incur any expenditure, implicitly he is making payment of rent to himself. Since the houses are producing a service, the imputed value of this service should be included.
  
  ii) **Sale or purchase of second hand goods** should not be included because its values are already included in the year in which it was produced.
  
  iii) **Sale or purchase of shares/bonds**: - (new / old) should not be included because they are just transfer of ownership title. It doesn’t lead to increase in flow of goods and services
  
  iv) **Commission or brokerage earned on account of sale or purchase of second hand goods** should be included as it is a factor income.

33) State whether the following are included or excluded in the estimation of (a) GDP and (b) GNP. Give reason also.

- **i) Profits earned by a foreign company in India.**
  
  - Included in GDP: Yes
  
  - Included in GNP: No
  
  Reason: It is included in GDP because the foreign company is present within the domestic territory of India
  
  Reason: It is not included in GNP because it is earned by a foreign company
  
- **ii) Salary paid to Americans working in Indian embassy in America.**
  
  - Included in GDP: Yes
  
  - Included in GNP: No
  
  Reason: It is included in GDP because Indian embassy is a part of domestic territory of India
  
  Reason: It is not included because it is a factor income paid abroad
  
- **iii) Money received from sale of share.**
  
  - Included in GDP: No
  
  - Included in GNP: No
  
  Reason: It will not be included because it doesn’t lead to increase in flow of goods and services. It is just transfer of ownership title.
  
  Reason: It will not be included because it doesn’t lead to increase in flow of goods and services. It is just transfer of ownership title.
  
- **iv) Money received from sale of an old house.**
  
  - Included in GDP: No
  
  - Included in GNP: No
  
  Reason: It is not included because its value
34) State whether the following are included or excluded in the estimation of (a) GDP and (b) GNP. Give reason also.
   i) Income earned from smuggling, black marketing or gambling
   ii) Interest received by an Indian resident from abroad
   iii) Interest received by an Indian resident from abroad

<table>
<thead>
<tr>
<th>S.N No</th>
<th>Items</th>
<th>Included in GDP</th>
<th>Included in GNP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Income earned from smuggling, black marketing or gambling</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>It is not included in GDP because it is an illegal income. It is not earned by rendering productive services.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Interest received by an Indian resident from abroad</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>It is not included because it is not earned within the domestic territory of India</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Profits earned by an Indian company from its branches in Singapore</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>It is not included because it is not earned within the domestic territory of India</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

AGGREGATES RELATED TO NATIONAL INCOME: GNP, NNP, GDP AND NDP-AT MARKET PRICE, AT FACTOR COST, NATIONAL DISPOSABLE INCOME (GROSS & NET)

35) What do you mean by GDP?
   - GDP (GROSS DOMESTIC PRODUCT)
     It is the market value of all final goods and services produced within the Domestic territory of a country during a given period of time or it is also known as Gross value-added.

36) What do you mean by NDPmp?
   - NDP (NET DOMESTIC PRODUCT)
     It is the market value of all the final goods and services produced with in the Domestic Territory of a country during a given period of time minus Depreciation.
     \[
     NDP = GDP - \text{Depreciation}.
     \]

37) What do you mean by GNPmp?
   - Gross national product - It is the market value of all the final goods and services produced within the Domestic Territory of a country during a given period of time plus net factor income earned from abroad.
     \[
     GNP = GDP + \text{NFIFA}
     \]

38) What do you mean by NNPmp?
   - NNP (NET NATIONAL PRODUCT)
     It is the market value of all the final goods and services produced with in the Domestic Territory of a country during a given period of time plus net factor Income earned from Abroad minus Depreciation.
NNP = GDP + NFIFA – DEPRECIATION

39) What do you mean by NDP_{FC}?
- It is the sum of factor incomes earned within the Domestic Territory of a country by all the factors of production during a given period of time.

40) What do you mean by GDP_{FC}?
- It is the sum of factor income earned within the Domestic Territory of a country during a given period of time plus depreciation.
  \[ GDP_{FC} = NDP_{FC} + \text{Depreciation} \]

41) What do you mean by NNP_{FC} / National income?
- It is the sum of factor income earned within the Domestic Territory of a country by all the factors of production during a given period of time plus Net Factor Income earned from abroad.
  \[ NNP_{FC} = NDP_{FC} + \text{NFIFA} \]
  NNP_{FC} is also known as National Income

42) What do you mean by GNP_{FC}?
- It is the sum of factor income earned within the Domestic Territory of a country during a given period of time plus Depreciation plus Net Factor Income earned from abroad.
  \[ GNP_{FC} = NDP_{FC} + \text{Depreciation} + \text{NFIFA} \]

43) What has to be added in the following cases?
   a) GDP = NDP + _________
   b) GNP = NNP + _________
   c) GDP_{FC} = NDP_{FC} + _________
   d) GNP_{FC} = NNP_{FC} + _________

   Depreciation

44) What are the other names of depreciation?
   a) Consumption of fixed capital.
   b) Capital consumption allowance.

45) What has to be subtracted in the following cases?
   a) NDP_{FC} = NDP_{MP} - _________
   b) GDP_{FC} = GDP_{MP} - _________
   c) NNP_{FC} = NNP_{MP} - _________
   d) GNP_{FC} = GNP_{MP} - _________

   Net indirect taxes

46) What do you mean by Net indirect taxes?
- It is the difference between indirect taxes and subsidies.

47) What should be added in the following cases?
   a) GNP_{MP} = GDP_{MP} + _________
   b) NNP_{MP} = NDP_{MP} + _________
   c) GDP_{FC} = GDP_{FC} + _________
   d) GNP_{FC} = GDP_{FC} + _________

   Net factor income earned from abroad

48) What do you mean by Net factor income from abroad?
- It is the difference between factor income earned from abroad and factor income paid abroad.

49) Define factor income from abroad. Give example also.
- It is the factor income earned by our residents who are temporarily residing abroad. For example, Salaries of Indians working in Russian embassy in India.

50) Define factor income to abroad. Give example also.
- It is the factor income earned by non-residents who are temporarily residing in our country. For example, Salaries of Americans working in Indian embassy in America.

51) What do you mean by National Disposable income / Net National Disposable income?
- **52)** What do you mean by Gross National Disposable income?
  - It is the sum of Net National Disposable income and depreciation.
  - Gross National Disposable income = Net national disposable income + depreciation

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### PRIVATE INCOME, PERSONAL INCOME AND PERSONAL DISPOSABLE INCOME

#### 53) Define private income.
- Private income is the total income from all sources (factor income as well as current transfers) that accrue to the private sector during the period of one year.

#### 54) What are the components of private income?
- Private income = Income from domestic product accruing to the private sector + Net factor income earned from abroad + All types of current transfers + National debt interest

#### 55) Define Personal income.
- Personal income is the income actually received by the individuals and house hold from all sources in the form of current transfer payments and factor income.
  - Personal income = Private income - undistributed profits – corporate tax

#### 56) Define Personal Disposable income.
- Personal disposable income is the personal income remaining with individuals after deduction of all taxes levied against their income and their property as well as payment of miscellaneous fees and fines.
  - Personal Disposable income = Personal income – Personal taxes – Miscellaneous receipts of the government
  - (or)
  - Personal Disposable income = Personal consumption expenditure + Personal savings

#### 57) What do you mean by National Debt interest?
- It refers to the interest payments accruing to residents of the country on account of borrowings by the government. The government borrows money from the people (by issuing bonds like National Saving Certificates in India)

#### 58) What are the two components of Personal Disposable income?
- Personal Disposable income = Personal consumption expenditure + Personal savings

#### 59) Differentiate between factor income and transfer income. Any six points.

<table>
<thead>
<tr>
<th>Factor Income</th>
<th>Transfer Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. It is a reward for rendering productive services</td>
<td>i. It is received without rendering any productive services.</td>
</tr>
<tr>
<td>ii. It is included in national income.</td>
<td>ii. It is not included in national income.</td>
</tr>
<tr>
<td>iii. It is bilateral concept.</td>
<td>iii) It is a unilateral concept.</td>
</tr>
<tr>
<td>iv. Rent, wages, interest and profits are main forms of factor payment.</td>
<td>iv) Scholarship, unemployment allowance, old age pension, etc. are main forms of transfer payments.</td>
</tr>
</tbody>
</table>

#### 60) Differentiate between factor payment and transfer payment.

<table>
<thead>
<tr>
<th>Factor payment</th>
<th>Transfer payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. It is a payment made for rendering factor services.</td>
<td>i. Payment made without rendering factor services,</td>
</tr>
<tr>
<td>ii. It is bilateral in nature.</td>
<td>ii. It is unilateral in nature</td>
</tr>
<tr>
<td>iii. For example: Rent, interest, wages profit etc.</td>
<td>iii) For example: Old age pension, scholarship, unemployment allowance</td>
</tr>
<tr>
<td>iv. It is included in National income</td>
<td>iv. It is not included in National income</td>
</tr>
</tbody>
</table>
### Differentiate between capital transfers and current transfers.

<table>
<thead>
<tr>
<th><strong>Capital Transfer</strong></th>
<th><strong>Current Transfer</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>i) These are the transfers made from the wealth or savings of the payer for the purpose of investment. ii) These are non-recurring in nature. iii) for ex. Investment grant, Capital gains tax, war damages etc.</td>
<td>i) These are transfers made from the current income of the payer and added to the current income of the person who is receiving. ii) These are recurring in nature. iii) for ex. Scholarships, gifts, old age pension</td>
</tr>
</tbody>
</table>

### What should be added in the following case

\[ \text{NDP}_{FC} = \text{Income from domestic product accruing to the public sector} + \_\_\_\_\_ \]

- NDP\(_{FC}\)=Income from domestic product accruing to the public sector
- + Income from domestic product accruing to the private sector

### What are the two main components of income from domestic product accruing to the public sector?

- Income from domestic product accruing to the public sector = Income from property savings of non - product accruing to the public sector + savings of non and entrepreneurship + departmental enterpri -ses. Administrative Departments

### REAL AND NOMINAL GDP

#### What do you mean by Real GDP?

- Real GDP: - When GDP is measured at constant prices it is known as Real GDP.

#### What do you mean by Nominal GDP?

- Nominal GNP: - When GNP is measured at current prices is also known as Nominal GNP.

#### Differentiate between Real GDP and Nominal GDP.

<table>
<thead>
<tr>
<th><strong>Real GDP</strong></th>
<th><strong>Nominal GDP</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>i) It is measured at constant prices. ii) It is the value measured at constant prices of all the final goods and services produced within the domestic territory of a country during a given period of time. iii) Real GDP can increase only when there is an increase in the production of goods and services. iv) It is a real indicator of economic growth.</td>
<td>i) It is measured at current prices. ii) It is the value measured at current prices of all the final goods and services produced within the domestic territory of a country during a given period of time. iii) Nominal GDP can increase even when there is no increase in the production of goods and services i.e Nominal GDP can increase even when prices happens to increase. iv) It is not a real indicator of economic growth.</td>
</tr>
</tbody>
</table>

#### Why Real GDP is a better index of welfare of the people?

- Real GDP is a better index of welfare of the people because it shows the change in flow of goods and services in the economy.

#### Give any three advantages of Real GDP.

- The advantages of Real GDP are
  i. It enables us to make year to year comparison of growth of output.
  ii. It is also used in making international comparison of economic performances of different countries.
  iii. It is useful in finding out the effect of increased production of goods and services on the real development capacity of the country.

#### Define GDP deflator and give its formula.

- GNP Deflator: - It measures the average level of price of goods and services that make up GNP.

\[
\text{GNP Deflator} = \frac{\text{Nominal GNP}}{\text{Real GNP}} \times 100
\]

#### Define green GNP.

- It is that GNP which helps in attaining sustainable development, equitable distribution of income and good quality of life for the people.
### 71) If Real GDP is ₹ 200 and Price Index (with base = 100) is 110, calculate Nominal GDP.

\[
\text{Real GDP} = \frac{\text{Nominal GDP}}{\text{Price Index}} \\
\text{Nominal GDP} = \frac{\text{Real GDP} \times \text{Price Index}}{100} \\
= \frac{200 \times 110}{100} = 220
\]

Nominal GDP = ₹220

### 72) If the Nominal GDP is ₹ 1,200 and Price Index (with base = 100) is 120, calculate Real GDP.

\[
\text{Real GDP} = \frac{\text{Nominal GDP}}{\text{Price Index}} \\
= \frac{1,200}{120} \times 100 = 1,000
\]

Real GDP = ₹1,000

### 73) If the Real GDP is ₹ 300 and Nominal GDP is ₹ 330, calculate Price Index (base = 100).

\[
\text{Price Index} = \frac{\text{Nominal GDP}}{\text{Real GDP}} \times 100 \\
= \frac{330}{300} \times 100 = 110
\]

Price index = 110.

### 74) The value of the nominal GDP of an economy was ₹2,500 crore in a particular year. The value of GNP of that country during the same year, evaluated at the prices of same base year, was ₹ 3,000 crore. Calculate the value of the GNP deflator of the year in percentage terms. Has the price level risen between the base year and the year under consideration?

\[
\text{GNP Deflator} = \frac{\text{Nominal GDP}}{\text{Real GDP}} \times 100 \\
= \frac{2,500}{3,000} \times 100 = 83.33\%
\]

The price level falls between the base year and the year under consideration.

### GDP AND WELFARE

### 75) Write down any four limitations of using GDP as an index of welfare of a country.

i) Distribution of GDP is not taken into account.
ii) Composition of GDP is not accounted for.
iii) Non-monetary exchanges remain un-recorded, to which extent GDP remains underestimated.
iv) Externalities are not considered, even when these have considerable impact on social welfare.

### 76) How “distribution of Gross Domestic Product” is a limitation in taking Gross Domestic Product as an index of welfare? Explain.

Increase in gross domestic product (GDP) is often taken as a measure of economic welfare. This is because increase in GDP implies increased of goods and services in the economy. However, distribution of GDP acts as a limitation in this context. If with every increase in the level of GDP, distribution of GDP is getting more unequal, welfare level of the society may not rise. Only fewer people tend to benefit from a larger share of the cake. The gulf between haves and have-nots may increase. The bulk of the population may have even lesser goods than before even when the overall level of GDP has tended to rise.


When GDP is increased mainly due to increase in production of war goods, defense weapons, tanks, bombs etc, it will not lead to direct increase in welfare of the people. Thus when the level of GDP rises and the composition of
GDP is not welfare oriented then the welfare of the society will not increase.

78) How ‘Non-monetary exchanges’ are a limitation in taking Gross Domestic Product as an index of welfare? Explain.

- In economies like of India, barter system of exchange is not totally non-existent. Non-monetary transactions are quite evident in rural areas where payments for farm-labour are often made in kind rather than cash. But such transactions are not recorded because they are outside the monetary system of exchange. To this extent, GDP remains underestimated and is, therefore, not a proper index of welfare.


- Externalities are the good and bad impact of an activity without paying the price or penalty for that. Example – positive externalities occur when a beautiful garden is maintained by Mr. X raises welfare of Mr. Y even when Y is not paying for it. There is no valuation of it in GDP. Negative externalities occur when smoke emitted by industries causes’ air pollution and industrial waste is released into river causing water pollution. Environmental pollution causes a loss of social welfare but no one is penalized for it and there is no valuation of it in the estimation of GDP. Impact of externalities (positive and negative) is not accounted in the index of social welfare in terms of GDP. To the extent GDP as an index of welfare is not appropriate index. It either underestimates or overestimates the level of welfare.

MULTIPLE CHOICE QUESTIONS
NOTE: EACH QUESTION CARRIES ONE MARK

1) Transfer payments refer to payments which are made

- a) Without any exchange of goods and services
- b) To workers on transfer from one job to another
- c) As compensation to employees
- d) None of them

- a) Without any exchange of goods and services

2) Which one of the following statements is incorrect?

- a) GDP<sub>MP</sub> = GDP<sub>FC</sub> + Net indirect taxes.
- b) NNP<sub>FC</sub> = NNP<sub>MC</sub> – Indirect taxes
- c) GNP<sub>MC</sub> = GDP<sub>MC</sub> + Net Factor Income From Abroad
- d) None of them.

- b) NNP<sub>FC</sub> = NNP<sub>MC</sub> – Indirect taxes

3) National income differs from NNPMP by the amount ________

- a) Current transfers from the rest of the world
- b) Net indirect taxes
- c) National debt interest
- d) It does not differ

- b) Net indirect taxes

4) NNP<sub>FC</sub> is _________

- a) Equal to national income
- b) Less than national income
- c) More than national income
- d) Sometimes less than national income and sometimes more than it

- a) Equal to national income

5) Which one of following statements is correct?

- a) If national income rises, per capita income must also rise
- b) If population rises, per capita income must also rise
- c) If national income rises, welfare of the people must rise
- d) None of them

- d) None of them

UNIT 6 – MONEY AND BANKING

MONEY-ITS MEANING AND FUNCTIONS

1) Define barter system.

- It refers to that system where there is exchange of one good (or service) for another good (or service). It is also known as C-C (commodity to commodity) exchange economy.
2) What are the difficulties of barter system?

- **Drawbacks of Barter System**:
  - a) **Lack of double coincidence**: Double coincidence of wants implies that a person having a surplus of one commodity should be able to find another person who not only wants that commodity but has something acceptable to offer in exchange.
  - b) **Lack of common measure of value**: Since different goods and services are measured in different physical units, it is difficult to decide in what proportion two goods are to be exchanged.
  - c) **Indivisibility of commodities**: Many goods cannot be divided into parts.
  - d) **Difficulty of storage and transfer of wealth**: Valuable cannot be stored for long nor they can be moved long distances.

3) Define money.

Money is anything which is accepted as medium of exchange and out as a common measure of value, store of value, standard of deferred payment.

4) State any four main functions of money.

- **Functions of Money**:
  - i) Acts as a medium of exchange
  - ii) It acts as a measure of value
  - iii) It acts as a store of value
  - iv) It acts as a standard of Deferred Payment

5) Explain the “Medium of Exchange” function of money.

- **Medium of exchange**: Money works as a medium of exchange. Money helps in buying and selling of goods. Goods are exchanged for money and this money can be used for buying any other goods that we need. This money acts as an intermediate and facilitates trade. Money removes the difficulty of double coincident of wants. Now a person ‘A’ can sell his goods to another person ‘B’ for money and then he can use that money to buy the goods they want from another. Money has made the exchange of goods easier.

6) Explain the “Unit of Account” function of money.

- **Unit of accounts**: Money serves as a unit of account or common measure of value in terms of which the value of all goods and services are measured. This helps in measuring the exchange value of commodity. The price of all goods and services can be fixed in terms of money. So problem of expressing the value of each commodity in terms of quantity of the other good can be avoided. Unit of value function of money makes possible to keep business accounts unless all business transactions are expressed in terms of money.

7) Explain the “Standard of Deferred Payment” function of money.

- Money serves as a standard of deferred payments. Deferred payments refer to those payments which are made in future. When we borrow money from somebody in present we have to return both the principal as well as interest amount at some future dates. It is easy to make such payments in terms of money because its price remains relatively stable as compared to other commodities.

8) Explain the “Store of Value” function of money.

- **Store of value**: Money serves as a store of values it means that money is an asset and can be stored for future. Under barter system staring of value (savings) is very difficult in terms of goods but money has completely solved this problem. Now savings are done in the terms of money. The value of goods and services are frequently changing where the value of money is more or less stable, moreover goods are perishable but money is not perishable in some sense. Money occupies less space for storage when compared to goods. Hence money is best form of store of value.

---

**SUPPLY OF MONEY- CURRENCY HELD BY THE PUBLIC AND NET DEMAND DEPOSITS HELD BY COMMERCIAL BANKS**

9) What do you mean by money supply?

- It refers to the total stock of money held by the public at a particular point of time.

10) Define M₁ measure of money supply.

- It is the sum of currency held by the public, demand deposits of the people with commercial banks and other deposits.
11) **Explain the different components of M1 measure of money supply.**

- \( M_1 = C + DD + OD \)

Where
- \( C \) = currency held by the public. It contains paper currency as well as coins
- \( DD \) = demand deposits of the people with commercial banks. It excludes interbank deposits.
- \( OD \) = other deposits with RBI

There are the deposits held by RBI of all economic units except the government and the banks.

12) **What do you mean by banking?**

- It is defined as the accepting for the purpose of lending or investment of deposits money from the public, repayable on demand or otherwise and withdrawal by cheque, draft, order or otherwise.

13) **State the two essential functions of a bank.**

- The two essential functions of a bank are- i) Accepting chequeable deposits from the public and ii) Lending.

14) **State whether post office savings banks are banks or not. Give reasons.**

- Post office savings bank is not banks even though they accept deposits from the public. This is because they do not perform the other essential function of lending.

15) **State whether LIC, UTI or IDBI are considered as banks or not. Give reasons.**

- Many financial institutions like LIC, UTI and IDBI are not considered as banks even though they lend to others. This is because they do not accept chequeable deposits.

16) **Define commercial bank.**

- It is that financial institution which accepts deposits from public and gives loans for the purpose of consumption and investment.

17) **All financial institutions are banking institution. State true / false and give reasons.**

- False, all financial institutions are not banking institutions, even when all banking institutions are financial institutions. Example: LIC is a financial institution, but not a banking institution. A financial institution is a banking institution only when (i) it accepts deposits from the people, and (ii) offers loans to the people.

18) **State the three different types of deposits of a commercial bank.**

- The three different types of deposits of a commercial bank are: -
  - i) Current account deposits
  - ii) Fixed term deposits
  - iii) Savings account deposits

19) **Explain about current account deposits.**

- Current account deposits: deposits in current account are payable on demand. They can be drawn by cheque without any restriction. These accounts are usually maintained by business and are used for making business payments. No interest is paid on these deposits.

20) **Explain about fixed account deposits.**

- Fixed/term deposits: these are the deposits for fixed term varying from 15 days to a few years. They are not payable on demand and do not enjoy chequeing facilities. The money deposited in such accounts is payable on the maturity of fixed period for which the deposit was initially made. However, the depositors can get loans from the banks against the fixed deposits. Higher rates of interest are paid on these fixed deposits.

21) **Explain about savings account deposits.**
Savings accounts deposits: these deposits are mainly made by the general public, salaried class and retired persons who save a small part of their income. Deposits in saving account are payable on demand and also withdraw able by cheques but with certain restrictions. The interest paid on saving deposits account is less as compared to that of fixed deposits.

**MONEY CREATION BY THE COMMERCIAL BANKING SYSTEM**

22) Explain the process of money creation by the commercial banking system.

Money created by the bank is determined by

i) The amount of fresh initial deposits

ii) The legal reserve ratio (LRR)

It is the minimum ration of deposit legally required to be kept as cash by the bank. It includes statutory liquidity ratio (SLR) and cash reserve ratio (CRR). It is assumed that whatever money goes out of the banks is deposited into the bank.

Let us assume that LRR is 20% and there is fresh deposit of ₹10000. As required, the bank keeps 20% i.e. 2000 as cash and the remaining amount of ₹8000 can be lend as loans. Those who borrow use this money and redeposit into the bank. In this way bank receives a fresh deposit of ₹8000. The bank again keeps 20% i.e. ₹1600 as cash and lends ₹6400. The money again comes back to the bank leading to a fresh deposit of ₹6400. The money goes on multiplying this way and ultimately the total money created is ₹50000.

\[
\text{Money creation} = \text{Initial deposit} \times \frac{1}{\text{LRR}}
\]

\[
= 10000 \times \frac{1}{20/100}
\]

\[
= 10000 \times \frac{100}{20}
\]

\[
= ₹50000
\]

23) Define money multiplier / deposit multiplier / Credit Multiplier

It is the number of times cash reserves of the commercial banks multiply to be equal to demand deposits. It is the reciprocal of CRR.

\[
\text{Money multiplier} = \frac{1}{\text{LRR}}
\]

**CENTRAL BANK AND ITS FUNCTIONS (EXAMPLE OF RBI) : BANK OF ISSUE, GOVERNMENT BANK, BANKERS BANK, CONTROLLER OF CREDIT THROUGH BANK RATE, CRR, SLR, REPO RATE AND REVERSE REPO RATE, OPEN MARKET OPERATIONS, MARGIN REQUIREMENT**

24) What do you mean by a central bank?

It is apex institution bank that controls and regulates the monetary and banking system of a country.

25) State any three main functions of central bank.

Any Three

i) Issue of notes

ii) Banker to the Government

iii) Banker’s bank and supervisor

iv) Custodian of the nation’s reserves of foreign exchange

v) Controller of credit

vi) Clearing house function

vii) lender of last resort

26) State the relationship between money multiplier and Legal Reserve Ratio.

Money multiplier= \(\frac{1}{LRR}\)

a) Higher the value of LRR, lower is the value of money multiplier i.e less money is created by the banking system.

b) Lower the value of LRR, higher is the value of money multiplier i.e., more money is created by the banking system.

27) Explain “Issue of notes” function of Central Bank.

In modern times central bank of every country in the world alone has the exclusive right to issue notes. The notes issued by the central bank are unlimited legal tender throughout the country. Actually till the beginning of 20th
Century these banks were known as Bank of issue.

28) **Explain “Banker to the Government” function of the Central Bank.**  
**OR**  
**Explain “Government’s bank” function of the Central Bank.**

- Banker to the government: the central bank acts as a banker to the government in various respects:
  1. The Central Bank accepts receipts and makes payment for the government and carries out exchange, remittance and other banking operations.
  2. It provides short-term credit to the government.
  3. It provides foreign exchange resources to the government to repay external debt.
  4. It manages public debt, i.e., to manage all new issues of government loans.
  5. It advises the government on banking and financial matters.

29) **Explain “Banker’s bank and supervisor” function of the Central Bank.**

- Banker’s bank and supervisor: Central bank acts as banker’s bank and supervisor to commercial banks in various aspects:
  a) It provides financial assistance to commercial banks by discounting their bills and through loan advances against approved security.
  b) The commercial banks are required to maintain certain percentage of liabilities with the central bank. The sole aim of this resource is to enable the Central bank to provide financial assistance to bank in the time of financial emergencies.
  c) It supervises, regulates and controls the activity of a commercial bank.
  d) It provides the commercial bank with centralized clearing and remittance facility.

30) **Explain “Custodian of the nation’s reserves of foreign exchange” function of Central Bank.**

- Central bank functions as a custodian of nations foreign exchange reserves. It is the responsibility of central banks to keep the external value of the country’s currency stable. In order to discharge this function successfully central bank maintains reserves of foreign currency. Besides central banks maintain reserves of foreign exchange in order to promote international trade and stabilize exchange rates.

31) **Explain the “Controller of credit” function of Central Bank.**

- The most important function of a central bank is to control the supply of credit in a country. It implies increasing or decreasing the supply of money by regulating the creation of credit by the commercial banks. The central bank needs to control the supply of money to solve the problem of inflation or deflation it uses quantitative methods like bank rate, CRR,SLR, repo rate, open market operations and qualitative methods like margin requirement, rationing of credit, moral-suasion etc.

32) **Explain the “Clearing house” function of money.**

- The central bank performs the function of clearing house. Every bank keeps cash reserves with central bank. The claim of a bank against one another can be easily and conveniently settle by simple transfer from an to their accounts. Suppose bank ‘A’ receives a cheque of ₹10,000 drawn on bank ‘B’ and bank ‘B’ receives a cheque of ₹50,000 drawn on bank ‘A’ both banks ‘A’ and ‘B’ have their accounts with the central bank. The cheques of both banks are cleared through their accounts with a central bank.

33) **Explain how Central Bank acts as a lender of last resort.**

- The central bank acts as a lender of last resort for the commercial banks. When commercial banks fail to meet obligations of their depositors, the central bank comes to their rescue. The central bank advances necessary credit against eligible securities subject to certain terms and conditions. This says the bank from a possible break down. Central bank never refuses to accommodate any eligible bank and helps them in need.

34) **State any six tools of credit creation of Central Bank.**

- Any Six.
  i) Bank rate.
  ii) Repo rate.
  iii) Open market operations.
  iv) Cash Reserve Ratio.
  v) Statutory Liquidity Ratio.
  vi) Margin requirements.
vii) Moral suasion.

viii) Direct Action.

35) Define bank rate.
   - It is the rate at which the central bank of a country offers loans or gives credit to commercial banks.

36) Define repo rate.
   - It is the rate of interest at which commercial banks can raise short term loans from the central bank.

37) Differentiate between quantitative and qualitative instruments of credit control.
   - **Quantitative Instruments**
     i) These are the instruments which control the magnitude of the credit that is made by various banks as primary and secondary deposits
     ii) These are the traditional methods of credit control
     iii) For ex. a) Bank rate.
         b) Repo rate.
         c) Open market operations
   - **Qualitative Instruments**
     i) These are the instruments which control credit of a specific section of the society.
     ii) These are selective methods of credit control
     iii) For ex. a) Margin requirements.
         b) Moral suasion.
         c) Direct Action.

38) What do you mean by open market operations?
   - It refers to the sale or purchase of government securities in the open market by the central bank of a country.

39) Define Cash Reserve Ratio.
   - It is the minimum percentage of banks' total demand deposits which the commercial banks are required to keep as reserves with the central bank.

40) Define Statutory Liquidity Ratio.
   - Every bank is required to maintain a specified percentage of their net total demand and time liabilities in the form of designated liquid assets. This is known as Statutory Liquidity Ratio.

41) Define margin requirements.
   - It refers to the difference between the current value of asset and the amount of loan offered against it.
   - Margin requirements = current value of asset – amount of loan offered.

42) What do you mean by moral suasion?
   - It implies persuasion, request or appeal by the central banks to commercial banks to cooperate with general monetary policy of the central bank.

43) Calculate the value of money multiplier and total deposit created if initial deposit is of ₹ 1000 crores and CRR is 20%.
   - Money multiplier = \( \frac{1}{LRR} = \frac{1}{20\%} = \frac{100}{20} = 5 \)
   - Money creation = Initial deposit \( \times \frac{1}{LRR} \)
   - = 1000 x 5 = ₹5000 Cr

44) What do you mean by reverse repo rate?
   - It is the rate of interest that which commercial banks can park their surplus funds with commercial banks for short period of time.

### MULTIPLE CHOICE QUESTIONS
**NOTE**: EACH QUESTION CARRIES ONE MARK.

1) **M₁ in the money stock in India refers to**
   - a) Post office savings deposits
   - b) Total post office deposits
   - c) Currency + demand deposits + other deposits with RBI
   - d) Time deposits with bank
1) Which one of the following institutions is not a bank?
   a) HDFC  
   b) LIC  
   c) UTI  
   d) All of them

2) Which one of the following institutions is not a bank?
   a) HDFC  
   b) LIC  
   c) UTI  
   d) All of them

3) Quantitative instrument of RBI can be:
   a) Bank rate policy  
   b) Cash reserve ratio  
   c) Statutory liquidity ratio  
   d) All of them

4) ______ refers to that portion of total deposits of a commercial bank which it has to keep with itself in the form of liquid assets.
   a) CRR  
   b) SLR  
   c) Bank Rate  
   d) Repo Rate

5) In order to discourage investment in the economy, the RBI may
   a) Increase bank rate  
   b) Decrease bank rate  
   c) Buy securities in the open market  
   d) Decrease CRR

6) During depression, it is advisable to
   a) Lower bank rate and purchase securities in the market  
   b) Increase bank rate and purchase securities in the open market  
   c) Decrease bank rate and sell securities in the open market  
   d) Increase bank rate and sell securities in the open market

UNIT 7 – DETERMINATION OF INCOME AND EMPLOYMENT

Aggregates demand and its components

1) Define aggregate demand.
   It refers to the total demand for final good and services in an economy during an accounting year.

2) State the components of aggregate demand.
   \[ AD = C + I + G + (X-M) \]
   Where
   \[ AD = \text{Aggregate Demand} \]
   \[ C = \text{consumption expenditure} \]
   \[ I = \text{Investment expenditure} \]
   \[ G = \text{Government expenditure} \]
   \[ X = \text{Exports} \]
   \[ M = \text{Imports}. \]

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

3) Define average propensity to consume.
   It is the ratio of total consumption and total income.
   \[ APC = \frac{C}{Y} \]

4) Define marginal propensity to consume.
   It is the ratio of change in consumption to change in income.
5) If total consumption expenditure is ₹850 and total income is ₹1000. Find APC?

\[
APC = \frac{C}{Y} = \frac{850}{1000} = 0.85
\]

6) If aggregate income of economy increases from ₹2500 to ₹3500 and aggregate consumption increases from ₹1500 to ₹2000. Find MPC?

\[
MPC = \frac{\Delta C}{\Delta Y} = \frac{2000 - 1500}{3500 - 2500} = \frac{500}{1000} = 0.5
\]

7) Find APC and MPC for the following given data

<table>
<thead>
<tr>
<th>Income</th>
<th>Consumption</th>
<th>APC</th>
<th>MPC</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>40</td>
<td>0.8</td>
<td></td>
</tr>
<tr>
<td>100</td>
<td>65</td>
<td>0.65</td>
<td>0.5</td>
</tr>
<tr>
<td>150</td>
<td>75</td>
<td>0.5</td>
<td>0.2</td>
</tr>
</tbody>
</table>

8) Define consumption function.

- It is the functional relationship between income and consumption.

9) In the consumption function \( C = \tilde{C} + by \), what does \( \tilde{C} \) and \( b \) represent?

- \( \tilde{C} \): Autonomous consumption (it is the minimum level of consumption when income level is zero).
- \( b \): Marginal propensity to consume.

10) Define Keynes’ psychological law of consumption.

- According to Prof. Keynes, as income increases consumption expenditure also increases but increase in consumption is smaller than the increase in income.

11) Suppose the consumption function is \( C = 40 + 0.8y \). Derive consumption schedule when income is equal to 0, ₹100 Cr, ₹200 Cr, ₹300 Cr, ₹400 Cr, ₹500 Cr and ₹600 Cr. What is the breakeven level of income? Also mention APC at this level of income.

<table>
<thead>
<tr>
<th>Income Y (₹ in Crores)</th>
<th>Consumption C (₹ in Crores)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>40</td>
</tr>
<tr>
<td>100</td>
<td>120</td>
</tr>
<tr>
<td>200</td>
<td>200</td>
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<td>300</td>
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<td>400</td>
<td>360</td>
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<td>500</td>
<td>440</td>
</tr>
<tr>
<td>600</td>
<td>520</td>
</tr>
</tbody>
</table>

Here the breakeven level of income is ₹200 Crores. At breakeven level of income total consumption is equal to total income. Therefore APC = 1.

12) Suppose the consumption function is \( C = 40 + 0.8y \). Basing upon it draw consumption curve when income is equal to 0, ₹100 Cr, ₹200 Cr, ₹300 Cr, ₹400 Cr, ₹500 Cr and ₹600 Cr. Show breakeven point on the diagram and mention APC value at breakeven level of income.
Here the breakeven point is B and the breakeven level of income is ₹ 200 Crores. At breakeven level of income total consumption is equal to total income. Therefore APC = 1.

13) **Define average propensity to save.**

- It is the ratio of total savings and total income.
  \[ APS = \frac{S}{Y} \]

14) **Define marginal propensity to save.**

- It is the ratio of change in total savings and change in total income.
  \[ MPS = \frac{\Delta S}{\Delta Y} \]

15) If total income is ₹500 and total savings are ₹100. Find APS

- \[ APS = \frac{S}{Y} = \frac{100}{500} = \frac{1}{5} = 0.2 \]

16) Find MPS when income increases from ₹100 to ₹200 and savings from ₹60 to ₹100 respectively.

- \[ MPS = \frac{\Delta S}{\Delta Y} = \frac{40}{100} = 0.4 \]

17) Find APS and MPS for the following given data

<table>
<thead>
<tr>
<th>Income</th>
<th>Consumption</th>
<th>Savings</th>
<th>APS = \frac{S}{Y}</th>
<th>MPS = \frac{\Delta S}{\Delta Y}</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>40</td>
<td>-40</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>50</td>
<td>70</td>
<td>-20</td>
<td>-0.4</td>
<td>0.4</td>
</tr>
<tr>
<td>100</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>0.4</td>
</tr>
</tbody>
</table>

18) **Define savings function.**

- It is a functional relationship between aggregate savings and income.

19) In the savings function \( S = - \bar{C} + (1 - b) Y \). What does \(- \bar{C}\) and \((1 - b)\) represent?

- \(- \bar{C}\) = Negative savings (dissavings)
- \((1 - b)\) = Marginal propensity to save.

20) Suppose the savings function is \( S = - \bar{C} + (1 - b) Y \), where \(- \bar{C} = 40\) and \( b = 0.8 \). Derive savings schedule when \( y \) = 0, ₹ 100 Cr, ₹ 200 Cr, ₹ 300 Cr, ₹ 400 Cr, ₹ 500 Cr and ₹ 600 Cr. Show the breakeven level of income and the value of APS at this level of income.

<table>
<thead>
<tr>
<th>Income</th>
<th>Savings S = - 40 + 0.2 y</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>-40</td>
</tr>
<tr>
<td>100</td>
<td>-20</td>
</tr>
<tr>
<td>200</td>
<td>0</td>
</tr>
<tr>
<td>300</td>
<td>20</td>
</tr>
</tbody>
</table>
Here the breakeven level of income is 200. At breakeven level of income total savings is equal to 0 as total consumption is equal to total income. Therefore \(\text{APS} = \frac{S}{Y} = \frac{0}{200} = 0\).

21) Suppose the savings function is \(S = -\bar{C} + (1 + b)Y\), where \(-\bar{C} = 40\) and \(b = 0.8\). Basing upon it draw savings curve when income is equal to 0, \(\nabla 100\text{ Cr}\), \(\nabla 200\text{ Cr}\), \(\nabla 300\text{ Cr}\), \(\nabla 400\text{ Cr}\), \(\nabla 500\text{ Cr}\) and \(\nabla 600\text{ Cr}\). Show breakeven point also on the diagram.

Here the breakeven level of income is 200. At breakeven level of income total savings is equal to 0 as total consumption is equal to total income. The savings curve touches the x-axis at point “M”. Therefore \(\text{APS} = \frac{S}{Y} = \frac{0}{200} = 0\).

22) State the relationship between APC and APS.

\[\text{APC} + \text{APS} = 1\]

23) State the relationship between MPC and MPS.

\[\text{MPC} + \text{MPS} = 1\]

24) Show that \(\text{APC} + \text{APS} = 1\).

We know that \(Y = C + S\)
Dividing the entire equation by \(Y\) we get
\[
\frac{Y}{Y} = \frac{C}{Y} + \frac{S}{Y}
\]
\[1 = \text{APC} + \text{APS}\]
i.e., \(\text{APC} + \text{APS} = 1\)

25) Show that \(\text{MPC} + \text{MPS} = 1\).

We know that \(Y = C + S\)
i.e., \(\Delta Y = \Delta C + \Delta S\)
Dividing the entire equation by \(\Delta Y\) we get,
\[
\frac{\Delta Y}{\Delta Y} = \frac{\Delta C}{\Delta Y} + \frac{\Delta S}{\Delta Y}
\]
\[1 = \text{MPC} + \text{MPS}\]
Therefore \(\text{MPC} + \text{MPS} = 1\)

26) Derive savings function from consumption function diagrammatically.

From the above given diagram, it is clear that, \(\bar{C}\) is the consumption function
45° line is the income line.(At each point on this line income = consumption)
We know that \(Y = C + S\)
i.e., \(S = Y - C\)

<table>
<thead>
<tr>
<th>Y</th>
<th>C</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>400</td>
<td>40</td>
<td>360</td>
</tr>
<tr>
<td>500</td>
<td>60</td>
<td>440</td>
</tr>
<tr>
<td>600</td>
<td>80</td>
<td>520</td>
</tr>
</tbody>
</table>
When income level is zero, consumption is OC and savings is -OC. -OC is the starting point of the savings curve.

When income level is OY, consumption is BY, which is equal to OY, and savings is zero. Y is another point on the savings curve.

When income level is OY₁, consumption is MY₁, savings is LM, which can be shown as NY₁. N is another point on the savings curve.

By joining the points -OC, Y, N, we get the savings curve.

27) Derive consumption function from savings function diagrammatically.

![Diagram](image-url)

From the above given diagram, it is clear that:
- CS is the savings function
- 45° line is the income line. (At each point on this line, income = consumption)

We know that

\[ Y = C + S \]
\[ C = Y - S \]

<table>
<thead>
<tr>
<th>Y</th>
<th>S</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>When income level is zero</td>
<td>Savings is OC</td>
<td>Consumption is OC</td>
</tr>
<tr>
<td>When income level is OY</td>
<td>Savings is zero</td>
<td>Consumption is equal to income which is OY</td>
</tr>
<tr>
<td>When income level is OY₁</td>
<td>Savings is NY₁ which can be shown as LM</td>
<td>Consumption is MY₁</td>
</tr>
</tbody>
</table>

By joining the points C, B, M, we get the consumption curve.

28) Define investment.

It is the net addition made to the stock of capital goods such as structure equipment’s and inventories during a given period of time.

29) What do you mean by autonomous and induced investment?

Autonomous Investment
It is that type of investment which is independent of the change in level of income/rate of interest/rate of profit.

Induced Investment
It is that type of investment which is dependent on the change in level of income/rate of interest/rate of profit.

30) Explain the determination of equilibrium level of income and employment with the help of a schedule using AD and AS approach.
According to Prof. J M Keynes, equilibrium level of income and employment is determined where aggregate demand is equal to aggregate supply.

\[ AD = AS \]

\[ C + I = C + S \]

\[ I = S \]

**Planned investment = planned investment**

<table>
<thead>
<tr>
<th>Income</th>
<th>Employment</th>
<th>Consumption</th>
<th>Savings</th>
<th>Investment</th>
<th>AD</th>
<th>AS</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>40</td>
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<td>520</td>
<td>80</td>
<td>40</td>
<td>500</td>
<td>600</td>
</tr>
</tbody>
</table>

**Case-I: When income level is less than 400**

\[ AD > AS \]

There is de-accumulation of inventories (i.e. decrease in accumulation of inventories). Therefore, the producers will increase the level of employment. Thus output increases. This process continues till \( AD = AS \)

**Case-II: When income level is more than 400**

\[ AD < AS \]

There is accumulation of inventories. Therefore the producers will increase the level of employment. Thus output increases. This process continues till \( AD = AS \).

**Case-III: When income level is 400**

\[ AD = AS \]

Planned investment = planned savings

There the equilibrium level of income and employment is 400.

31) **Explain the determination of equilibrium level of income and employment with the help of a diagram through AD and AS approach**

According to Prof. J M Keynes, equilibrium level of income and employment is determined where aggregate demand is equal to aggregate supply.

\[ AD = AS \]

\[ C + I = C + S \]

\[ I = S \]

Planned investment = planned investment
Thus output increases. This process continues till AD=AS

Case-II When income level is more than OY
AD<AS

There is accumulation of inventories. Therefore the producers will increase the level of employment. Thus output increases. This process continues till AD=AS.

Case-III When income level is OY
AD=AS

Planned investment = planned savings

There the equilibrium level of income and employment is OY.

32) Explain the determination of equilibrium level of income and employment with the help of a schedule through savings and investment approach.

According to Prof. J M Keynes, equilibrium level of income and employment is determined where aggregate demand is equal to aggregate supply.

AD=AS
C+I=C+S
I=S

Planned investment = planned investment

<table>
<thead>
<tr>
<th>Income</th>
<th>Employment</th>
<th>Consumption</th>
<th>Savings</th>
<th>Investment</th>
<th>AD</th>
<th>AS</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
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<td>40</td>
<td>-40</td>
<td>40</td>
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<td>0</td>
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<td>520</td>
<td>80</td>
<td>40</td>
<td>500</td>
<td>600</td>
</tr>
</tbody>
</table>

Case-I: When income level is less than 400
I > S

There is deaccumulation of inventories (i.e. decrease in accumulation of inventories). Therefore the producers will increase the level of employment. Thus output increases. This process continues till I = S

Case-II: When income level is more than 400
I < S

There is accumulation of inventories. Therefore the producers will increase the level of employment. Thus output increases. This process continues till I = S.

Case-III: When income level is 400
I = S

Planned investment = planned savings

There the equilibrium level of income and employment is 400.

33) Explain the determination of equilibrium level of income and employment with the help of a diagram through savings and investment approach.

According to Prof. J M Keynes, equilibrium level of income and employment is determined where aggregate demand is equal to aggregate supply.

AD=AS
C+I=C+S
I=S

Case-I: When income level is less than OY
I > S

There is deaccumulation of inventories (i.e. decrease in accumulation of inventories). Therefore the producers will increase the level of employment. Thus output increases. This process continues till I = S

Case-II: When income level is more than OY
I < S

There is accumulation of inventories. Therefore the producers will increase the level of employment. Thus output increases. This process continues till I = S.
Case-III When income level is OY
I = S
Planned investment = planned savings
There the equilibrium level of income and employment is OY.

34) What do you mean by ex-ante/planned/desired/intended investment?
   ➢ It refers to that level of investment which the investors plan to invest.

35) What do you mean by ex-post/actual/realized investment?
   ➢ It refers to that level of investment which is actually invested by the investors.

36) What do you mean by ex-ante/planned/desired/intended savings?
   ➢ It refers to that level of savings which the people desired to save.

37) What do you mean by ex-post/actual/realized savings?
   ➢ It refers to that level of savings which the people have actually saved.

38) Define investment multiplier.
   ➢ It is the ratio of change in income to change in investment
     \[ K = \frac{\Delta Y}{\Delta I} \]

39) State the relationship between investment multiplier and MPC.
   ➢ \[ K = \frac{1}{1 - MPC} \]
   There is direct relationship between K and MPC
   a) If MPC is high, K will also be high.
   b) If MPC is low, K will also be low.

40) State the relationship between investment multiplier and MPS.
   ➢ \[ K = \frac{1}{MPS} \]
   There is inverse relationship between K and MPS
   a) If K is high, MPS is low.
   b) If K is low, MPS is high.

41) Explain the working of investment multiplier with the help of a numerical example.
   ➢ **Investment Multiplier**
     It is the ratio of change in income to change in investment \[ K = \frac{\Delta Y}{\Delta I} \]
     The working of the multiplier assumes the following process.

     ![Multiplier Diagram]

     | Period | \( \Delta I \) (₹ in Crores) | \( \Delta Y \) (₹ in Crores) | \( \Delta C \) (₹ in Crores) |
     |--------|-------------------------------|-------------------------------|-------------------------------|
     | 1      | 100                           | 100                           | 50                            |
     | 2      | 50                            | 25                            |
     | 3      | 25                            | 12.5                          |
     | --     | --                            | --                            |
     | --     | --                            |
     | 100    | 200                           | 100                           |

     From the above given table it is clear that as a result of increase in investment of ₹ 100 Cr, there will be increase in income by ₹ 100 Cr. In the first round. As MPC =0.5 consumption is equal to ₹ 50Cr., the remaining ₹ 50 Cr. will be saved.
     The consumption expenditure of the first round will lead to increase in income by ₹ 50 Cr in the second round. Therefore the change in consumption is ₹ 25 Cr.
     This process continues and as a result the total income generated is as follows.
K = \frac{1}{1-MPC} = \frac{1}{1-0.5} = 2

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

2 = \frac{\Delta Y}{100}
therefore \Delta Y = \text{₹}200 Crores

42) Explain the working of investment multiplier with the help of a diagram.

**Investment Multiplier**

It is the ratio of change in income to change in investment  \( K = \frac{\Delta Y}{\Delta I} \)

The working of the multiplier assumes the following process.

\[ \Delta I \rightarrow \Delta \upsilon \rightarrow \Delta C \rightarrow \Delta Y \] 

From the above given diagram it is clear that AD intersects 45° at point E. therefore the initial equilibrium level of income is OY.

Suppose that there is increase in investment by \( \Delta I \), the AD curve will shift upwards i.e., from AD to AD\(_1\) the difference between AD and AD\(_1\) shows \( \Delta I \) (change in investment) AD\(_1\) curve intersects 45° line at point E\(_1\). Thus the new equilibrium level of income is OY\(_1\). Hence it is clear that change in investment leads to change in income by YY\(_1\).

43) Find out the size of multiplier when MPC = 0.

\[ K = \frac{1}{1-MPC} = \frac{1}{1-0} = 1 \]

44) How much additional income will be generated in an economy with additional investment of 100cr when MPC is equal to 1/3.

\[ K = \frac{1}{1-MPC} = \frac{1}{1-\frac{1}{3}} = \frac{3}{2} = 1.5 \]

\[ K = \frac{\Delta Y}{\Delta I} = \frac{\Delta Y}{100} \]

\[ \Delta Y = \text{₹}150Cr. \]

**MEANING OF FULL EMPLOYMENT AND INVOLUNTARY UNEMPLOYMENT**

45) Give the meaning of full employment.

It refers to that situation in which all those who are able to work and willing to work are getting work at the existing wage rate.

46) Give the meaning of involuntary unemployment.

It refers to that situation in which the persons who are able to work and willing to work are unable to find work at the existing wage rate.

47) Give the meaning of Voluntary unemployment.

It refers to that situation in which the persons who are able to do the work are not ready to do the work even though the work is available at the existing wage rate.

48) Define full employment equilibrium.

It refers to that equilibrium situation (AD=AS) where all those who are able to work and willing to work are getting work at the existing wage rate.

49) Define underemployment equilibrium.

It refers to that equilibrium situation (AD=AS) where the people who are able to work and willing to work are unable to find work at the existing wage rate.

**PROBLEMS OF EXCESS DEMAND AND DEFICIENT DEMAND, MEASURES TO CORRECT THEM-CHANGES IN GOVERNMENT SPENDING, TAXES AND MONEY SUPPLY.**

50) Define excess demand.
51) Explain the concept of excess demand with the help of a diagram.

It is that situation in which the actual aggregate demand is more than the aggregate demand that is required to establish full employment equilibrium.

From the above given diagram, it is clear that Point E is full employment equilibrium. OQ* is the output at full employment level. Actual AD > AD that is required to establish full employment equilibrium level i.e., AQ* > EQ*

AE shows the inflationary gap situation.

52) What do you mean by inflationary gap?

It is the excess of actual aggregate demand over the aggregate demand that is required to establish full employment equilibrium.

53) Define deficient demand.

It is that situation in which the actual aggregate demand is less than the aggregate demand that is required to establish full employment equilibrium.

54) Explain the concept of deficient demand with the help of a diagram

It is that situation in which the actual aggregate demand is less than the aggregate demand that is required to establish full employment equilibrium.

From the above given diagram, it is clear that

Point E is full employment equilibrium. OQ* is the output at full employment level. Actual AD > AD that is required to establish full employment equilibrium level i.e., AQ* > EQ*.

AE shows the inflationary gap situation.
Point E is full employment equilibrium. OQ* is the output at full employment level. Actual AD < AD that is required to establish full employment equilibrium level i.e., GQ* < FQ*
FG shows the deflationary gap situation.

55) **What do you mean by deflationary gap?**
- It is the shortage of actual aggregate demand over the aggregate demand that is required to establish full employment equilibrium.

56) **Explain the effect of excess demand on output, employment and price.**
- **Effect of excess demand on**
  1. **Employment:** It will not increase because there is no involuntary unemployment. The economy has already reached the full employment level.
  2. **Output:** It will not increase because the economy is already in the state of full capacity production.
  3. **Price:** Excess demand will generate treasure of demand on existing flow of goods and services in an economy. Therefore, the price will increase.

57) **Explain the effect of deficient demand on output, employment and price.**
- **Effect of deficient demand on**
  1. **Employment:** The level of employment falls as employment investment level falls.
  2. **Output:** The level of output decreases as employment is decreasing.
  3. **Price:** Prices will decrease.

58) **Explain any two fiscal measures to solve the problem of excess demand.**
- **ANY TWO MEASURES**
  1. **Taxes:** It is a compulsory legal payment made by the people and companies to the government without expecting any direct benefits from the government.
     During excess demand, the government should increase the level of taxation. This will reduce the disposable income of the people. As a result aggregate demand falls and the problem of excess demand is solved.
  2. **Public Borrowing (Government):** It refers to the loans raised by the government within the country or outside the country.
     During excess demand, the government should resort to large scale public borrowing in order to mop up the excess of money with the public. This will reduce the aggregate demand and thus the problem of excess demand is solved.
  3. **Public Expenditure:** It refers to the expenditure incurred by the government for its maintenance and to promote welfare of the people.
     During excess demand the government should reduce its expenditure on public works such as roads, buildings, irrigation works, etc. This will reduce the aggregate demand and thus the problem of excess demand is solved.
  4. **Deficit Financing:** It refers to the printing of notes to the extent of deficit in a budget.
     During excess demand, the government should not resort to deficit financing. This will reduce the government’s ability to spend which in turn will lead to decrease in aggregate demand of the economy and thus the problem of excess demand is solved.

59) **Explain any two monetary measures to solve the problem of excess demand.**
- **ANY TWO MEASURES**
  1. **Bank Rate:** It is the rate at which Central Bank of a country offers loans or gives credit to the commercial banks.
     In order to correct the problem of excess demand, the bank rate should be increased. As a result the commercial banks will increase the market rate of interest (the rate at which the commercial banks lend money to the investors and consumers). This makes the credit to become costlier. Accordingly the demand for credit contracts and aggregate demand is reduced. Thus the problem of excess demand is solved.
  2. **Cash Reserve Ratio (CRR):** It is the minimum percentage of banks total demand deposits which the banks are required to keep as reserve with the Central Bank.
In order to correct the problem of excess demand the CRR should be increased. This will reduce credit creation capacity of the commercial banks. Accordingly the credit reduces, this leads to reduction of purchasing power in the hands of the people. As a result, aggregate demand decreases and thus the problem of excess demand is solved.

iii) Statutory Liquidity Ratio (SLR): - Every bank is required to maintain specified percentage of their net total demand and time liabilities in the form of designated liquid assets. In order to correct the problem of excess demand, the SLR should be increased. This will reduce the credit creation capacity of the commercial banks. Accordingly availability of credit reduces. This leads to reduction of purchasing power in the hands of the people. As a result aggregate demand decreases and thus the problem of excess demand is solved.

iv) Open Market Operations: - it refers to the sale or purchase of government securities in the open market by the Central Bank of a country. In order to correct the problem of excess demand the Central Bank will sell the government securities. Thus the Central Bank withdraws additional purchasing power from the economy. This results in contraction of credit. As a result aggregate demand decreases and the problem of excess demand is solved.

v) Marginal Requirements: - Marginal requirement of a loan refers to the difference between the value of the security offered for loan and the value of loan granted. 


In order to correct the problem of excess demand the Marginal Requirement should be increased. This will make the borrowers to secure less amount of loans from the banking system. Thus aggregate demand will decrease and the problem of excess demand is solved.

60) Explain any two fiscal measures to solve the problem of deficient demand.

➢ ANY TWO MEASURES

Following are the various tools of fiscal policy:-

i) Taxes: - It is a compulsory legal payment made by the people and companies to the government without expecting any direct benefits from the government. During deficient demand, the government should decrease the level of taxation. This will increase the disposable income of the people. As a result aggregate demand rises and the problem of deficient demand is solved.

ii) Public Borrowing (Government): - It refers to the loans raised by the government within the country or outside the country. During deficient demand, the government should not resort to large scale public borrowing which will not lead to decrease in purchasing power of the people. Thus aggregate demand rises and the problem of deficient demand is solved.

iii) Public Expenditure: - It refers to the expenditure incurred by the government for its maintenance and to promote welfare of the people. During deficient demand the government should increase its expenditure on public works such as roads, buildings, irrigation works, etc. This will increase the aggregate demand and thus the problem of deficient demand is solved.

iv) Deficit Financing: - It refers to the printing of notes to the extent of deficit in a budget. During deficient demand, the government should resort to deficit financing. This will increase the government’s ability to spend which in turn will lead to increase in aggregate demand of the economy and thus the problem of deficient demand is solved.

61) Explain any two monetary measures to solve the problem of deficient demand.

➢ ANY TWO MEASURES

Following are the various tools of monetary policy:

i) Bank Rate: - It is the rate at which Central Bank of a country offers loans or gives credit to the commercial banks. In order to correct the problem of deficient demand, the bank rate should be decreased. As a result the commercial banks will decrease the market rate of interest (the rate at which the commercial banks lend money to the investors and consumers). This makes the credit to become cheaper. Accordingly the demand for credit expands and aggregate demand is increased. Thus the problem of deficient demand is solved.

ii) Cash Reserve Ratio (CRR): - It is the minimum percentage of banks total demand deposits which the banks are required to keep as reserve with the Central Bank. In order to correct the problem of deficient demand the CRR should be decreased. This will increase credit creation capacity of the commercial banks. Accordingly the credit increases, this leads to increase of purchasing power in the hands of the people. As a result, aggregate demand increases and thus the problem of deficient demand is
solved.

iii) Statutory Liquidity Ratio (SLR): - Every bank is required to maintain specified percentage of their net total demand and time liabilities in the form of designated liquid assets.

In order to correct the problem of deficient demand, the SLR should be decreased. This will increase the credit creation capacity of the commercial banks. Accordingly availability of credit increases. This leads to increase of purchasing power in the hands of the people. As a result aggregate demand increases and thus the problem of deficient demand is solved.

iv) Open Market Operations: - it refers to the sale or purchase of government securities in the open market by the Central Bank of a country.

In order to correct the problem of deficient demand the Central Bank will buy the government securities. Thus the Central Bank raises additional purchasing power of the economy. This results in expansion of credit. As a result aggregate demand increases and the problem of deficient demand is solved.

v) Marginal Requirements: - Marginal requirement of a loan refers to the difference between the value of the security offered for loan and the value of loan granted.

Marginal Requirement = Value of the Security – Amount of loan granted

In order to correct the problem of deficient demand the Marginal Requirement should be decreased. This will make the borrowers to secure more amounts of loans from the banking system. Thus aggregate demand will increase and the problem of deficient demand is solved.

MULTIPLE CHOICE QUESTIONS
NOTE ; EACH QUESTION CARRIES 1 MARK

1) If disposable income is 1000 and consumption expenditure is 750, the value of average propensity to save will be ________________.
   a) 0.25 b) 0.9
c) 0.85 d) 0.2

➢ a)0.25

2) If MPC is 0.6, what will be the MPS?
   a) 0.2 b) 0.4
c) 0.9 d) 0.5

➢ b)0.4

3) If the saving function is S= -50+0.2Y, then MPC is
   a) 0.45 b) 0.8
c) 0.65 d) 0.25

➢ b)0.8

4) If in an economy investment is greater than saving, national income of the economy
   a) Increases b) Decreases
c) Remains constant d) None of them

➢ a) Increases

5) What happens to the level of national income, when aggregate supply exceeds aggregate demand?
   a) Increases b) Decreases
c) Remains constant d) None of them

➢ b) Decreases

6) If MPC and MPS are equal, value of multiplier is
   a) 2 b) 1
c) 5 d) 3

➢ a) 2

7) What is the relationship between MPS and multiplier?
a) Positive  b) Negative

- b) Negative

8) Name the situation under which aggregate demand falls short of aggregate supply at full employment level

- a) Excess demand
- b) Excess supply
- c) Inflationary gap
- d) None of these

- b) Excess supply

9) The various fiscal policy measures that can increase aggregate demand and thus control the problem of deficient demand are

- a) Increasing the level of government expenditure
- b) Reduction in the level of taxes
- c) A mix of increasing government expenditure and decreasing the rate of taxes
- d) All of them

- All of them

10) The various monetary policy measures that can increase aggregate demand and thus control the problem of deficient demand are

- a) Reduction in bank rate
- b) Purchase of government securities in the open market by the central bank
- c) Reduction in CRR and SLR
- d) All of them

- All of them

---

UNIT -8 GOVERNMENT BUDGET AND THE ECONOMY

**GOVERNMENT BUDGET – MEANING, OBJECTIVES AND COMPONENTS**

1) **Define government budget.**

- It is annual statement of estimated receipts and expenditure of the government over a fiscal year which runs from 1st April of particular year to 31st March of next year.

2) **State the objectives of a government budget.**

- Re-allocation of resources
- Re-distribution of income and wealth
- Maintenance of economic stability
- Management of public enterprises

3) **Explain the following objectives of a government budget.**

- Re-allocation of resources
- Re-distribution of income and wealth

- Re-allocation of resources: - The government has to reallocate the resources in line with social and economic considerations in case the market fails to do so or does so inefficiently. Private enterprises will always desire to allocate the resources to those areas of production where profits are high. Therefore government intervenes in the economy through its budgetary policy

- Reallocation of resources: - The government has to reallocate the resources in line with social and economic considerations in case the market fails to do so or does so inefficiently. Private enterprises will always desire to allocate the resources to those areas of production where profits are high. Therefore government intervenes in the economy through its budgetary policy

- Re-distribution of income and wealth: - The government redistributes income and wealth to reduce the gap between the rich and the poor. It implements welfare oriented programmes for poorer sections on one hand and imposes taxes on richer sections on the other hand. The government provides subsidies and other facilities and amenities to the poor people. This increases the disposable income of the poorer section and thus income inequalities are reduced.

4) **Explain the following objectives of a government budget.**

- Maintenance of economic stability
- Management of public enterprises

- Maintenance of economic stability: - The government tries to prevent business fluctuations and maintains economic stability. During inflation it tries to contract public expenditure and during recession it tries to expand public expenditure. Economic stability helps in increasing its level of investment and thereby helps in increasing the rate of economic growth.
Management of public enterprises: The government undertakes commercial activities that are of nature of natural monopoly like heavy manufacturing etc. through its public enterprises. Private enterprises may charge higher prices in order to earn more amount of profit. Therefore, the government has to intervene through public enterprises.

5) **Give the main components of a government budget.**

- The main components of government budget are revenue budget and capital budget.
- Revenue budget: revenue budget contains both types of the revenue receipts of the government, i.e., Tax revenue and non tax revenue; and the revenue expenditure i.e., Subsidies, expenditure incurred on the normal running of the government etc.
- Capital budget: capital budget contains capital receipts like recovery of loans, borrowing and liabilities and capital expenditure of the government like expenditure incurred on acquisition of fixed assets.

### CLASSIFICATION OF RECEIPTS – REVENUE RECEIPTS AND CAPITAL RECEIPTS;

### CLASSIFICATION OF EXPENDITURE – REVENUE EXPENDITURE AND CAPITAL EXPENDITURE

6) **Differentiate between revenue receipts and capital receipts. Give examples also.**

<table>
<thead>
<tr>
<th>Revenue receipts</th>
<th>Capital receipts</th>
</tr>
</thead>
<tbody>
<tr>
<td>These are those receipts of the government which does not lead to creation of liabilities or reduction in the assets of the government.</td>
<td>These are those receipts of the government which lead to creation of liabilities or reduction in the assets of the government.</td>
</tr>
<tr>
<td>These are recurring in nature</td>
<td>These are non-recurring in nature</td>
</tr>
<tr>
<td>For example: - Tax receipts i) direct tax – income tax and wealth tax ii) indirect tax – excise duty and sales tax Non – tax receipts – commercial revenue, fees, escheats</td>
<td>For example: - recovery of loans borrowing and liabilities</td>
</tr>
</tbody>
</table>

7) **Differentiate between revenue expenditure and capital expenditure. Give examples also.**

<table>
<thead>
<tr>
<th>Revenue expenditure</th>
<th>Capital expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>These are those expenditures of the government which does not lead to creation of assets or reduction in the liabilities of the government.</td>
<td>These are those expenditure of the government which lead to creation of assets or reduction in the liabilities of the government.</td>
</tr>
<tr>
<td>These are recurring in nature</td>
<td>These are non-recurring in nature</td>
</tr>
<tr>
<td>For example: - Subsidies Expenditure incurred on the normal running of the government</td>
<td>For example: - expenditure incurred on acquisition of fixed assets like land etc. loans and advances granted by central government to the state government and union territories</td>
</tr>
</tbody>
</table>

8) **Is the following revenue receipt or a capital receipt in the context of government budget and why?**

i) Tax receipts  ii) Disinvestment

- Tax receipts are a revenue receipt because it does not lead to creation of liabilities or reduction in the assets of the government.
- Disinvestment is a capital receipt because it leads to creation of liabilities or reduction in the assets of the government.

9) **Is the following revenue expenditure or a capital expenditure in the context of government budget and why?**

- Expenditure on collection of taxes
- Expenditure on purchasing of computers

- Expenditure on collection of taxes is revenue expenditure because it does not lead to creation of assets or reduction in the liabilities of the government.
- Expenditure on purchasing of computers is a capital expenditure because it leads to creation of assets or reduction in the liabilities of the government.

10) **Differentiate between direct taxes and indirect taxes. Give examples also.**
<table>
<thead>
<tr>
<th>Direct tax</th>
<th>Indirect tax</th>
</tr>
</thead>
<tbody>
<tr>
<td>These are those taxes where the impact (initial burden) and incidence of tax (final burden) is borne by the same person.</td>
<td>These are those taxes where the impact of tax (initial burden) is borne by one person and incidence of tax (final burden) is borne by another person.</td>
</tr>
<tr>
<td>Here, shifting of tax burden is not possible.</td>
<td>Here, shifting of tax burden is possible.</td>
</tr>
<tr>
<td>These are progressive in nature.</td>
<td>These are non progressive in nature.</td>
</tr>
<tr>
<td>For example</td>
<td>For example</td>
</tr>
<tr>
<td>Income tax</td>
<td>Excise duty</td>
</tr>
<tr>
<td>Wealth tax</td>
<td>Service duty</td>
</tr>
</tbody>
</table>

**MEASURES OF GOVERNMENT DEFICIT – REVENUE DEFICIT, FISCAL DEFICIT, PRIMARY DEFICIT – MEANING**

11) **What do you mean by budget deficit?**  
- It is the excess of total expenditure over total receipts of the government.  
  \[ \text{Budget deficit} = \text{total expenditure} - \text{total receipts}. \]

12) **What do you mean by revenue deficit?**  
- It is the excess of revenue expenditure over revenue receipts of the government.  
  \[ \text{Revenue receipts} = \text{revenue expenditure} - \text{revenue receipts}. \]

13) **What do you mean by fiscal deficit?**  
- It is the difference between total expenditure on one hand and revenue receipts plus non debt capital receipts on the other hand.  
  \[ \text{Fiscal deficit} = \text{total expenditure} - \text{revenue receipts} - \text{non debt capital receipts}. \]

14) **What do you mean by primary deficit?**  
- It is the difference between fiscal deficit and interest payments.  
  \[ \text{Primary deficit} = \text{fiscal deficit} - \text{interest payments}. \]

15) **In a government budget primary deficit is ₹10000 crores and interest payment is ₹2000 crores. Find fiscal deficit.**  
- Primary deficit = fiscal deficit - interest payments.  
  \[ 10000 = \text{fiscal deficit} - 2000 \]  
  Fiscal deficit = ₹12000 crores

16) **In a government budget revenue deficit is ₹50000 crores and borrowings are ₹75000 crores. How much is fiscal deficit?**  
- Fiscal deficit = borrowings = ₹75000 crores

**MULTIPLE CHOICE QUESTIONS**  
**NOTE:** EACH QUESTION CARRIES ONE MARK.

1) If budgetary deficit is nil and borrowings and other liabilities are 70 Crores, what is the amount of fiscal deficit?  
- a) Nil  
- b) 30 crore  
- c) Can’t say  
- d) 70 crore

2) When the government tries to meet the gap of public expenditure and public revenue through borrowing from the banking system, it is called  
- a) Deficit financing  
- b) Debt financing  
- c) Credit financing  
- d) None of them

3) ___________ is the difference between total receipts and total expenditure  
- a) Fiscal deficit  
- b) Budget deficit  
- c) Revenue deficit  
- d) Capital deficit
b) budget deficit

4) Payment of interest is _________.

a) Revenue expenditure  b) Capital expenditure
c) Primary deficit       d) Fiscal deficit

➢ a) Revenue expenditure

5) A government shows a primary deficit of ₹4400 crore. The revenue expenditure on interest payment is ₹400 crore. How much is the fiscal deficit?

a) 4000 crore  b) 10000 crore
c) 8000 crore  d) -8000 crore

➢ b) 10000 crore

BALANCE OF PAYMENTS ACCOUNT – MEANING AND COMPONENTS; BALANCE OF PAYMENT DEFICIT – MEANING.

1) What do mean by balance of payments?

➢ It is a systematic record of all economic transactions taking place between the residents of a reporting country and the residents of foreign countries.

2) Define balance of trade.

➢ It is the difference between export of goods and imports of goods.

3) Differentiate between balance of trade and balance of payment.

Ans:

<table>
<thead>
<tr>
<th>Balance of trade</th>
<th>Balance of payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is the difference between exports of goods and import of good.</td>
<td>Balance of payment of a country is the systematic record of all economic transactions taking place between residence of reporting country and residence of foreign country during a given period of time.</td>
</tr>
<tr>
<td>It includes visible items only</td>
<td>It includes both visible and non-visible items</td>
</tr>
<tr>
<td>It is a part of current account</td>
<td>It includes both current and capital account</td>
</tr>
<tr>
<td>It is not as significant as balance of payment for economic analysis</td>
<td>It is more significant and every country takes balance of payment into consideration while formulating economic policy</td>
</tr>
</tbody>
</table>

4) State the components of balance of payment account.

➢ Current account: - It records transactions relating to exports and imports of good. Export and imports of services and unilateral transfers received and made. It includes
  Balance of trade
  Balance of invisible trade
  Balance of unilateral trade or balance of unrequited transfers
  Capital account: - It records all international transactions that involve a resident of domestic country changing his assets with foreign residents or his liabilities to foreign residents. The various forms of capital account transactions are
  Private transactions
  Official transactions
  Portfolio investment
  Direct investment

5) What do mean by current account of balance of payments? Explain its components.

➢ Current account: - It records transactions relating to exports and imports of good. Export and imports of services and unilateral transfers received and made. It includes
  Balance of trade: - It is the difference between export of good and imports of good like machinery, steel, tea etc.
  Balance of invisible trade: - It is the difference between export of services and import of services like tourism, banking services, shipping etc.
  Balance of unilateral trade or balance of unrequited transfers: - It is the difference between unilateral receipts and unilateral payments
  Unrequited transfers can be classified into two types:-
  Private unrequited transfers
What do mean by capital account of balance of payments?

Capital account: It records all international transactions that involve a resident of domestic country changing his assets with foreign residents or his liabilities to foreign residents.

Differentiate between current account and capital account of balance of payments.

<table>
<thead>
<tr>
<th>Current account</th>
<th>Capital account</th>
</tr>
</thead>
<tbody>
<tr>
<td>It records transactions relating to exports and imports of good. Export and imports of services and unilateral transfers received and made.</td>
<td>It records all international transactions that involve a resident of domestic country changing his assets with foreign residents or his liabilities to foreign residents.</td>
</tr>
<tr>
<td>It includes: Balance of trade, Balance of invisible trade, Balance of unilateral trade or balance of unrequited transfers.</td>
<td>It includes: Private transactions, Official transactions, Portfolio investment, Direct investment.</td>
</tr>
</tbody>
</table>

Differentiate between autonomous and accommodating transactions of balance of payments account.

<table>
<thead>
<tr>
<th>Autonomous transactions</th>
<th>Accommodating transactions</th>
</tr>
</thead>
<tbody>
<tr>
<td>It refers to international economic transactions that take place due to some economic motive such as profit maximization.</td>
<td>It refers to international economic transactions that take place due to other activates in balance of payment such as government financing.</td>
</tr>
<tr>
<td>These transactions are independent of the state of country’s balance of payment.</td>
<td>These transactions are dependent on the state of country’s balance of payment.</td>
</tr>
<tr>
<td>These items are also known as above the line items in balance of payment. Example: - export of goods.</td>
<td>These items are also known as below the line items in balance of payment. Example: - official reserve transactions.</td>
</tr>
</tbody>
</table>

What does the balance of payment account record? Distinguish between the “balance of current account” and “balance of trade” in this account.

<table>
<thead>
<tr>
<th>Balance of current account</th>
<th>Balance of trade</th>
</tr>
</thead>
<tbody>
<tr>
<td>It records transactions relating to exports and imports of good. Export and imports of services and unilateral transfers received and made.</td>
<td>It is the difference between export of good and imports of good.</td>
</tr>
<tr>
<td>It includes balance of trade. For example: - Machinery, tourism, banking services etc.</td>
<td>It is a part of current account. For example: - Machinery, steel, tea etc.</td>
</tr>
</tbody>
</table>

What do you mean by disequilibrium in balance of payment?

It refers to either surplus in balance of payments or deficit in balance of payments.

What do you mean by surplus in balance of payment account?

It refers to that situation when the total receipts on account of autonomous transactions are more than the total payment on account of autonomous transactions.

What do you mean by deficit in balance of payment account?

It refers to that situation when the total receipts on account of autonomous transactions are less than the total payment on account of autonomous transactions.

What do you mean by surplus in balance of trade?

When the value export of goods is more than the value of import of goods then it is known as surplus in balance of trade.

What do you mean by deficit in balance of trade?
15) **Find the balance of trade when value of imports is ₹580 crore and value of exports is ₹650 crore.**

- Balance of trade = value of exports - value of imports
  \[ \text{Balance of trade} = \text{₹650 crores - ₹580 crores} = \text{₹70 crores} \]

16) **The balance of trade shows a deficit of ₹5000 crores and the value of imports is ₹9000 crores. What is the value of exports?**

- Balance of trade = value of exports - value of imports
- Value of exports = balance of trade (Deficit) + Value of imports
  \[ \text{Value of exports} = (-) \text{₹5000 crores} + \text{₹9000 crores} = \text{₹4000 crores} \]

17) **The balance of trade shows a deficit of ₹300 crores. The value of exports is ₹500 crores. What is the value of imports?**

- Balance of trade = value of exports - value of imports
- Value of exports = balance of trade (Deficit) + Value of imports
  \[ \text{Value of imports} = \text{₹500 crores} - (-) \text{₹300 crores} = \text{₹800 crores} \]

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**FOREIGN EXCHANGE RATE – MEANING OF FIXED AND FLEXIBLE RATES AND MANAGED FLOATING.**

**DETERMINATION OF EXCHANGE RATE IN A FREE MARKET.**

18) **What do you mean by foreign exchange?**

- It refers to all currencies other than the domestic currency of a country. For example, India’s domestic currency is Indian rupee and all other currencies like US dollar, British pound, Kuwait Dinar etc. are foreign exchange.

19) **Define foreign exchange rate.**

- It is the price of one currency in terms of another currency.
- or
- It is the rate at which exports and imports of the nation are valued at a given point of time.

20) **Define foreign exchange market.**

- It is the market where the national currencies are traded for one another.

21) **Give any four sources of demand for foreign exchange.**

- Demand for foreign exchange occur due to the following reasons
  1. Foreign exchange is demanded to make the payments for imports of goods and services
  2. Foreign exchange is needed to meet expenditure incurred in foreign tours.
  3. Foreign exchange is required for making unilateral transfers like sending gifts to other countries.
  4. It is demanded to make payments for purchase of assets like land, shares, bonds etc. in the foreign countries.

22) **Give any four sources of supply of foreign exchange.**

- Supply of foreign exchange occur due to the following reasons
  1. There is supply of foreign exchange when foreigners purchase home country’s goods and services through exports.
  2. There is supply of foreign exchange when foreigners invest in the home country through joint ventures or financial market operations.
  3. There is supply of foreign exchange when unilateral transfers are received in the form of gifts or remittances from abroad.
  4. Supply of foreign exchange comes from those who want to speculate on the value of foreign exchange.

23) **What do you mean by equilibrium rate of foreign exchange?**

- It is that rate of exchange at which the demand for foreign currency is equal to the supply of foreign currency.

24) **How equilibrium rate of foreign exchange is determined in a free market?**
In the foreign exchange market equilibrium rate of exchange is determined with the help of demand for foreign currency and supply of foreign currency.

**Equilibrium rate of exchange:**
- It is that rate of exchange at which the demand for foreign currency is equal to the supply of foreign currency.
- From the given diagram it is clear that, DD is the demand curve for foreign currency
- SS is the supply curve of foreign currency
- DD and SS intersect at point E

Therefore, the equilibrium quantity of foreign currency determined is \( OQ_{EQ} \)
Equilibrium rate of foreign exchange determined is \( OR_{EQ} \)

25) **Define currency depreciation.**
- It refers to the fall in the value of home currency in terms of foreign currency and this is done through market forces. It leads to increase in exports of home currency.

26) **Define currency appreciation.**
- It refers to the rise in the value of home currency in terms of foreign currency and this is done through market forces. It leads to decrease in exports of home currency.

27) **Define currency devaluation**
- It refers to the fall in the value of home currency in terms of foreign currency and this is done by the government. It leads to increase in exports of home currency.

28) **Define currency revaluation.**
- It refers to the rise in the value of home currency in terms of foreign currency and this is done by the government. It leads to decrease in exports of home currency.

29) **How can we broadly classify foreign exchange rate?**
- Foreign exchange rate can be broadly classified into three types:
  i) Fixed exchange rate
  ii) Flexible exchange rate
  iii) Hybrid system of exchange – for example managed floating.

30) **Define fixed exchange rate.**
- It refers to that exchange rate which is officially declared or fixed by the government.

31) **Define flexible foreign exchange rate.**
- It refers to that exchange rate which is determined with the help of demand and supply forces of foreign exchange market.

32) **Define managed floating exchange rate.**
- It is a system that allows adjustments in the exchange rates according to a set of rules and regulations which are officially declared in the foreign exchange market.

33) **Explain about managed floating exchange rate.**
- This is the hybrid of fixed and flexible exchange rate. It is a system that allows adjustments in the exchange rates according to a set of rules and regulations which are officially declared in the foreign exchange market. Authority takes a decision to intervene if a particular situation in their judgment requires it.
- Managed floating in the absence of rules and guidelines could be vulnerable to the abuse of intervention. A particular country can manipulate its managed floating to the detriment of other country. This behavior is called dirty floating.

34) **When can managed floating lead to dirty floating?**
- Managed floating in the absence of rules and guidelines could be vulnerable to the abuse of intervention. A particular country can manipulate its managed floating to the detriment of other country leading to dirty floating.
1) Reduction in the value of domestic currency through market forces is called_________
   a) Depreciation                    b) Devaluation
   c) Revaluation                    d) appreciation
   ➢ a) Depreciation

2) What will be the effect on exports if foreign exchange rate increases?
   a) Increases                        b) Decreases
   c) Remains constant                d) None of these
   ➢ a) Increases

3) When one country manipulates exchange rate against the interest of other country, is known as
   a) Managed floating                b) Dirty floating
   c) Wide band                       d) Crawling peg
   ➢ b) Dirty floating

4) _____ is a systematic record of all the economic transactions between one country and rest of the world
   a) Balance of trade                b) Balance of transactions
   c) Budget                          d) Balance of payments
   ➢ e) Balance of payments

5) Which one of the following items is an intangible item in balance of payments statement?
   a) Export of food grains           b) Import of crude oil
   c) Banking services provided in other country  d) Import of steel by steel industry
   ➢ c) Banking services provided in other country

6) Current account of BOP records transactions is relating to ___________
   a) Exchange of goods                b) Exchange of services
   c) Unilateral transfers             d) All of them
   ➢ d) all of them

7) Capital account may be ___________
   a) Private capital                 b) Banking capital
   c) Official capital                d) All of them
   ➢ d) all of them

ASSIGNMENT FOR MACRO ECONOMICS
1) Aggregate income, employment and output are subject matter of micro economics and macro economics? State true or false. Give reasons.

2) What is macro economic theory?

3) Discuss the subject matter of macroeconomics.

4) Give examples of macroeconomic variables.

5) Name the factors of production that participate in the production process?

6) What are the different components of profit?

7) Give the definition of an economic activity?

8) How is an intermediate good different from final good?

9) Why is it necessary to avoid double counting?

10) Explain the circular flow of income in a two sector economy?
11) Distinguish between money flow and real flow?

12) What is the difference between national income (NNP<sub>FC</sub>) and Domestic Factor income (NDP<sub>FC</sub>)?

13) Will the following be a part of domestic factor income of India? Give reason for your answer.
   (i) Old age pension given by the govt.
   (ii) Factor incomes 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 nonresident.

14) Will the following factor income be included in domestic factor income of India? Give reasons for your answer.
   (i) Compensation of employees to the residents of Japan working in Indian embassy in Japan.
   (ii) Profit earned by a branch of foreign bank in India.
   (iii) Rent received by a Indian resident from Russian embassy in India.
   (iv) Profits earned by a branch of state bank of India in England.

15) Define Expenditure method. What precautions are taken while estimating national income by expenditure method?

16) Define income method. What precautions are taken while estimating national income by income method?

17) How is personal income different from private income?

18) What is the relationship between national income and national disposable income?

19) Give the meaning of Aggregate Demand, Aggregate Supply and their components.

20) What is Say’s Law of Markets?

21) What is meant by MEI?

22) What is meant by consumption demand?

23) State the fundamental psychological law of Keynes.

24) What is meant by APC, MPC, MPS, and APS?

25) Why MPC is less than 1 (MPC < 1)?

26) Can value of APC be greater than one?

27) What happens to the part of income which is not spent on consumption?

28) Can value of APS be negative? If so, when?

29) What can be maximum value of MPS?

30) Draw a hypothetical propensity to consume curve and from it draw the propensity to save curve.

31) Diagrammatically derive saving function from consumption function.

32) What does employment mean?

33) What does voluntary unemployment& involuntary unemployment mean?

34) What does equilibrium mean? Determination of income and employment by AD=AS & S=I Approach.

35) Define full employment and under employment &beyond full employment by help of diagram.

36) What does investment multiplier indicate? How does multiplier works?

37) What is the relationship of K with MPC and MPS?
   1) If value of MPS is 0.25, what is the value of multiplier?
   2) If value of MPC is 0.8, find out value of multiplier (K).
   3) Calculate: Change in Income when MPC=0.8 and change in investment = Rs. 1,000.

38) What is meant by excess demand & Deficient demand? Explain with the help of Diagrams.

39) What are the Quantitative measures of Monetary Policy?

40) How the Govt.’s expenditure policy and Revenue policy help in rectifying the situation of deficient demand?

41) What do you mean by ’money is what money does’?

42) Why central bank of country is called an apex bank?
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<tr>
<td>43)</td>
<td>Central bank acts as the ‘lender of last resort’ Explain.</td>
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<td>44)</td>
<td>What are the essential functions which constitute a bank?</td>
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<td>45)</td>
<td>Describe the objectives of a government budget?</td>
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<td>46)</td>
<td>Explain the components of budget: i) Revenue budget – revenue receipts and revenue expenditure ii) Capital budget – capital receipts and capital expenditure</td>
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<td>47)</td>
<td>Define Balance of Payments and balance of trade</td>
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<td>48)</td>
<td>Give the meaning of favorable balance of payments and unfavorable balance of payments</td>
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<td>49)</td>
<td>What is Foreign Exchange Rate?</td>
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Sample Question Paper
Economics (030)
Class XII (2014-15)

Time : 3 Hours
Instructions:
1. All questions in both sections are compulsory. However, there is internal choice in some questions.
2. Marks for questions are indicated against each question.
3. Question No.1-3 and 15-19 are very short answer questions carrying 1 mark each. They are required to be answered in one sentence.
4. Question No.4-8 and 20-22 are short answer questions carrying 3 marks each. Answers to them should not normally exceed 60 words each.
5. Question No.9-10 and 23-25 are also short answer questions carrying 4 marks each. Answers to them should not normally exceed 70 words each.
6. Question No.11-14 and 26-29 are long answer questions carrying 6 marks each. Answers to them should not normally exceed 100 words each.
7. Answers should be brief and to the point and the above word limit be adhered to as far as possible.

Section A: Microeconomics

1. The total cost at 5 units of output is Rs 30. The fixed cost is Rs 5. The average variable cost at 5 units of output is: (1)
   a) Rs 25
   b) Rs 6
   c) Rs 5
   d) Re 1

2. What policy initiatives can the government undertake to increase the demand of milk in the country? Mention any one. (1)

3. Which of the shaded area in the diagrams below represent total utility? (1)

   ![Diagrams]
   (a)  (b)  (c)  (d)
4. Using a diagram explain what will happen to the PPC of Bihar if the river Kosi causes widespread floods. (3)

For blind candidates:
State two assumptions of a PPC. Explain what will happen to the PPC of the Bihar if the river Kosi causes widespread floods.

5. State the central problems of an economy. (3)

6. State whether the following statements are True or False. Justify your answer. (3)
   a) Average product rises only where marginal product rises.
   b) Total cost rises only when marginal cost rises.

7. Explain the effects of a 'price ceiling'. (3)
   OR
   Explain the effects of a 'price floor'.

8. Explain the implications of freedom of entry and exit of firms under perfect competition. (3)

9. A good is an 'inferior' good for one and at the same time 'normal' good for another consumer. Do you agree? Explain with the help of an example. (4)

10. Explain why an indifference curve is convex to the origin? (4)
     OR
     A consumer consumes two goods X and Y. What will happen if MUx/Px is greater than MUy/Py?

11. Explain the condition of equilibrium of a firm based on marginal cost and marginal revenue. (6)

12. What is meant by change in supply and change in quantity supplied? (6)

13. The following headline appeared in the Hindustan Times on 2 August 2014: "Crop damaged in Himachal sent tomato prices roaring in Delhi."
    Use a diagram and economic theory to analyse the statement. (6)
On 19 December 2013, the following news item was printed in the Economic Times: 
*Households in Southern India prefer to eat oranges for breakfast as banana plantations in Kerala have been destroyed and price of apples and grapes have also risen.*

Use a diagram and economic theory to analyse the impact of the rise in price of apples and grapes on the market of oranges.

*For blind candidates:*
The following headline appeared in the Hindustan Times on 2 August 2014: 
*Crop damaged in Himachal sent tomato prices roaring in Delhi.*
Analyze the statement based on economics theories.

OR

On 19 December 2013, the following news item was printed in the Economic Times: 
*Households in Southern India prefer to eat oranges for breakfast as banana plantations in Kerala have been destroyed and prices of apples and grapes have also risen.*

Analyse the impact of the rise in price of apples and grapes on the market of oranges.

14. A consumer consumes only two goods. Explain the conditions that need to be satisfied for the consumer to be in equilibrium under indifference curve analysis. (6)

**Section B: Macroeconomics**

15. Read the following dialogue between two people

Sita : I want 1kg of potatoes
Rani: What will you give in exchange?
Sita : I can give you 2 litres of milk in return for the potatoes.
Rani: I don't need milk. I want a pair of shoe

Which of the following problem is being faced by Sita and Rani in their exchange process?

a) Lack of double coincidence of wants
b) Absence of common units of value
c) Lack of store of value
d) Lack of standard of deferred payment

16. What is repo rate? (1)

17. Which of the following is a characteristic of a good? (1)

a) Intangible
b) Can be stored

c) Production and consumption must happen simultaneously

d) Cannot be transferred

18. The government budget has a revenue deficit. This gets financed by: (1)
   A. Borrowing
   B. Disinvestment
   C. Tax revenue
   D. Indirect taxes

   a) A and D
   b) C and D
   c) A and B
   d) C and D

19. Which of the following statement is not true for fiscal deficit? (1)
   A fiscal deficit:
   a) represents the borrowing of the government.
   b) is the difference between total expenditure and total receipts of the government
   c) is the difference between total expenditure and total receipts other than borrowing
   d) increases the future liability of the government

20. What is the role of a Central Bank in the following exchange rate? (3)
   a) Fixed exchange
   b) Floating exchange
   c) Managed floating

21. In an economy the autonomous investment is 100 and the consumption is \( C = 80 + 0.4Y \). Is the economy in equilibrium at an income level 400? Justify your answer. (3)

   OR

   In an economy the autonomous investment is 60 and the marginal propensity to consume is 0.8. If the equilibrium level of income is 400, then the autonomous consumption is 30. True or False? Justify your answer.

22. In an economy planned saving is greater than planned investment. Explain how the economy achieves equilibrium level of national income. (3)

23. Only one Product X is produced in the country. Its output during the year 2012 and 2013 was 100 units and 110 units respectively. The market price of the product during the year was Rs 50 and Rs 55 per unit respectively. Calculate the percentage change in real GDP and nominal GDP in year 2013 using 2012 as the base year. (4)
24. What is meant by “balance of payment” account? Distinguish between the "balance on current account" and "balance of trade" account. In which account would remittances from family members from abroad be accounted? (4)

25. State the various components of the Income Method that are used to calculate national income. (4)

OR

State any four precautions that need to be kept in mind when using the value added method for calculating national income.

26. In the government of India’s budget for the year 2013-14, the Finance Minister proposed to raise the excise duty on cigarettes. He also proposed to increase income tax on individual earning more than Rs. one crore per annum.

Identify and explain the types of taxes proposed by the Finance Minister. Was the objective only to earn revenue for the government? What possible welfare objectives could the Government be considering?

27. Draw a straight line consumption curve. From it derive the saving curve. Explain the process of derivation on the diagram, show:
   a) The income level at which APC=1
   b) The income level at which APS is negative

For blind candidates:

Explain the process of working of the ‘investment multiplier’ with the help of a numerical example.

28. a) What is meant by Cash reserve ratio? How does it increase the money supply in the economy? (3+3)
   b) What is meant by Open market operation? How does it reduce the money supply in the economy?

29. Find (a) National Income and (b) Gross National Disposable Income. (6)

\[
\text{Rs Crore}
\]

i. Net current transfer from abroad
   5

ii. Private final consumption expenditure
   200

iii. Subsidies
   20

iv. Net domestic fixed capital formation
   40

v. Net factor income to abroad
   10

vi. Government final consumption expenditure
   50

vii. Change in stock
   (-)10

viii. Net imports
   (-)20

ix. Consumption of fixed capital
   30

x. Indirect tax
   60

xi. Exports
   100
Find (a) Private Income and (b) National Income.

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
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<tbody>
<tr>
<td>i. Personal disposable income</td>
<td>350</td>
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<td>ii. Income from property and entrepreneurship</td>
<td>50</td>
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<tr>
<td>accruing to the government administrative departments</td>
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<tr>
<td>iii. Savings of non-departmental enterprises</td>
<td>25</td>
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<tr>
<td>iv. Direct personal tax</td>
<td>10</td>
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<tr>
<td>v. Net factor income from abroad</td>
<td>(-)5</td>
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<tr>
<td>vi. Indirect taxes</td>
<td>15</td>
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<tr>
<td>vii. Current transfers to the rest of the world</td>
<td>20</td>
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<td>viii. Savings of private corporate sector</td>
<td>25</td>
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<td>ix. Corporation tax</td>
<td>15</td>
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<tr>
<td>x. Current transfers from government</td>
<td>30</td>
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</tbody>
</table>
MARKING SCHEME

Section A: Microeconomics

1. c) (1)

2. - Give subsidies to reduce price. (1)
   - Undertake health campaigns to promote the positive effects of milk consumption. (Any 1)

3. c) (1)

4. If the river Kosi causes widespread floods in Bihar, it will lead to destruction of resources in Bihar. This will shift the PPC leftward. (2)
   Initial PPC is PP.
   With floods, the PPC will shift to $P_1P_1$

5. The central problems of an economy are:
   i) What to produce and in what quantity? (1)
   ii) How to produce? (1)
   iii) For whom to produce? (1)

6. (a) False: Average product rises as long as marginal product is greater than average product. Here marginal product could be rising or falling. (1½)
   (b) False: Total cost rises at a diminishing rate when marginal cost falls and total cost rises at an increasing rate when marginal cost increases. (1½)

7. ‘Price ceiling’ is the maximum price that sellers can legally charge for a product or a service. (1)
   Since this price is below equilibrium price, there is excess demand in the market. With shortages, sellers tend to hoard the product. It could also lead to black marketing. (2)
   OR
   ‘Price floor’ is the minimum price fixed by the government at which sellers can legally sell their product. (1)
   Since this price is above equilibrium price, there is excess supply in the market. Since there is surplus, sellers can attempt to sell their product at a price below the floor price. (2)
8. Freedom of entry and exit of firms under perfect competition means that there are no costs or barriers a firm faces to enter or exit the market. The implication of this is that in the long run each firm earns only normal profit. Suppose in the short run, existing firms are earning super normal profits, new firms enter the industry as they are attracted by profits. This raises the market supply and reduces the market price. As firms accept the lower market price, profits reduces. This process continues till profits reduce to normal levels in the long run. The opposite occurs if firms are earning losses as firms leave the industry. This reduces market supply and raises market price till losses get wiped out and firms earn only normal profit in the long run.

9. Yes, the same good can be inferior for one person and normal for another. Whether a good is normal or inferior is determined by the income level of the consumer. A good which is a normal good for a consumer with a lower income, may become an inferior good for a consumer with higher income. For example, coarse cloth may be a normal good for a low income consumer, but for a high income consumer it may be an inferior good as she can afford a better quality cloth. Thus, when a consumer moves to a higher income level, she may consider coarse cloth as being below their income status, and has the ability to buy more expensive fine cloth, thus considering coarse cloth as being inferior.

10. An indifference curve is convex to the origin due to diminishing marginal rate of substitution (MRS). Diminishing MRS means that the number of units of 'Good Y' that a consumer wants to substitute for one extra unit of 'Good X' goes on decreasing as the consumption of Good X increases. As consumption of Good X increases, the willingness to pay for it diminishes (due to the law of diminishing marginal utility). This payment is in terms of the units of Good Y sacrificed. Thus, MRS diminishes along an indifference curve, which makes it convex to the origin.

OR

If MUx/Px is greater than MUy/Py, then it means that the satisfaction a consumer derives from spending a rupee on Good x is greater than the satisfaction derived from spending a rupee on Good Y.

The consumer will relocate her income - substitute Good X for Good Y. As the consumption of Good X increases its marginal utility will fall. As the consumption of Good Y decreases, it marginal utility will increase. This is due to the law of diminishing marginal utility. This process will continue till MUx/Px becomes equal to MUy/Py and the consumer is in equilibrium.

11. Suppose the firm produces at an output level where MC<MR.
• This means that the firm’s cost incurred on the last unit is less than the revenue earned on the unit.
• Firm earns a profit on the last unit.
• This incentivizes the firm to produce more output.

Suppose the firm produces at an output level where MC>MR (2)
• This means that the firm’s cost incurred on the last unit is more than the revenue earned on it.
• Firm makes a loss on the last unit.
• This incentivizes the firm to produce less output.
(2)

Thus, a firm earns maximum profit where MC=MR. Should MC=MR occur at more than one output level, then the firm maximizes profit if MC>MR after the output where MC=MR. If not, then MC<MR and it is in the firm’s interest to produce more to maximize profit.

Thus, profit for a firm is maximized at an output where: (1)
(a) MC=MR
(b) MC>MR after the output where MC=MR.

12. **Change in quantity supplied** means when more is supplied at a higher price (expansion) or when less is supplied at a lower price (contraction). It leads to an upward or downward movement along the supply curve. It is caused due to a change in the own price of the commodity, other factor affecting supply are held constant. (3)

**Change in supply** means more is supplied at the same price (increase) or less is supplied at the same price (decrease).
It leads to a rightward or leftward shift of the supply curve.
It is caused due to a change in other factors affecting supply and not a change in the own price of the commodity. (3)

13.

![Diagram](image)

When the tomato crop was damaged in Himachal the supply of tomatoes decreases. This means that the supply curve shifts leftward to SS'. (1)

At the prevailing market price (OP), there was an excess demand of AE. In this situation, buyers would have competed to raise the market price. As market price would have risen.
quantity demanded of tomatoes would have contracted and the quantity supplied would have expanded. This process would have continued till a new equilibrium price was reached at OP₁, where market demand is equal to market supply. OP₁ is higher than the old price of tomatoes. 

This explains how prices in Delhi rose when the tomato crop got damaged in Himachal. (3) 

OR

When the price of apples and grapes rises, consumers will substitute with these fruits with the relatively cheaper oranges. Thus, demand for oranges will increase and the demand curve shifts rightwards to D'D'. (1)

At the prevailing market price (OP), there was an excess demand of AE. In this situation, buyers would react by competing with each other and raise the market price. As market price rises, quantity demanded of oranges contracts and the quantity supplied expands. This process will continued till a new equilibrium price is reached at OP₁, where market demand is equal to market supply. OP₁ is higher than the old price of oranges. (3) Therefore, the equilibrium price of oranges increases and the equilibrium quantity also increases when the price of apples and grapes rises in Southern India. (1)

14. Let a consumer consume Good X and Good Y. A consumer attains equilibrium when:

1) \[ MRS_{XY} = \frac{P_X}{P_Y} \]

2) \[ MRS_{XY} \] must be decreasing due to the law of diminishing marginal utility. (1)

MRS_{XY} is the number of units of Good Y a consumer in willing to sacrifice for an extra unit of Good X.

\( \frac{P_X}{P_Y} \) is the ratio of prices that prevail in the market and gives the actual units of Good Y that need to be sacrificed to obtain an extra unit of Good X in the market. (1)
Suppose \( MRS_{XY} > \frac{P_X}{P_Y} \)

- It means that the consumer is willing to sacrifice more of Good Y than she needs to give up actually in the market for an extra unit of Good X.
- The consumer gains and increases consumption of Good X.
- As consumption of Good X increase, its marginal utility declines.
- Thus, the willingness to pay for additional units of Good X (in terms of Good Y) falls.

- Process continues till \( MRS_{XY} = \frac{P_X}{P_Y} \) \( (2) \)

Suppose \( MRS_{XY} < \frac{P_X}{P_Y} \)

- It means that the consumer is willing to sacrifice less of Good Y than is actually required in the market for as extra unit of Good X.
- The consumer loses and reduces the consumption of Good X.
- As consumption of Good X decreases, its marginal utility increases.
- Thus, \( MRS_{XY} \) increases.

- The process continues till \( MRS_{XY} = \frac{P_X}{P_Y} \) \( (2) \)

**Section B: Macroeconomics**

15. a) \( (1) \)

16. Repo rate or repurchase rate is the rate at which commercial banks borrow money from the Central Bank for a short period by selling their financial securities to the Central Bank. \( (1) \)

17. b) \( (1) \)

18. c) \( (1) \)

19. b) \( (1) \)

20. The role of the Central Bank in maintaining the foreign exchange rates under different regimes is:

   a) Fixed exchange rate system: A Central Bank actively uses its foreign currency reserves to maintain the officially determined exchange rate. \( (1) \)

   b) Floating exchange rate system: A Central Bank does not maintain any reserves of foreign currency as the market automatically adjusts to determine the market driven exchange rate. \( (1) \)

   c) Managed Floating: A Central Bank enters the foreign exchange market to buy/sell foreign currency in order to control fluctuations and volatility in the market. \( (1) \)

21. At equilibrium \( \quad AD = Y \)

\[ AD = C + I = Y \]
\[ 80 + 0.4Y + 100 = Y \]
\[ 0.6Y = 180 \]
\[
Y = \frac{180}{0.6} = 300
\]

Since the given income of 400 is greater than equilibrium level of income, the economy is not at equilibrium. It is at a situation where aggregate demand is greater than the aggregate output produced in the economy.

OR

At equilibrium \( AD = C + I = Y \)

\( I = 60 \)

\( C = C_0 + bY = C_0 + 0.8Y \)

If equilibrium level of income is 400, then \( C = C_0 + 0.8 \times 400 = C_0 + 320 \)

Thus, \( 60 + C_0 + 320 = 400 \)

\( C_0 = 20 \)

The given value of autonomous consumption is incorrect. The correct value is 20.

22. Suppose planned saving is higher than planned investment. It means that households are not consuming as much as the firms had anticipated. In other words, planned output is greater than planned demand.

As a result, producers see a rise in their inventory level, beyond the planned level. To bring back inventory to the planned level, producers cut down production. This reduces aggregate output. The process continues till aggregate demand equals the output produced in the economy i.e. planned investment becomes equal to planned saving.

23.

<table>
<thead>
<tr>
<th>Year</th>
<th>Physical Output (Units)</th>
<th>Market Price Per Unit (Rs.)</th>
<th>Real GDP (Rs) Using base year Prices</th>
<th>Nominal GDP (Rs) Using Current Year Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>100</td>
<td>50</td>
<td>5000</td>
<td>5000</td>
</tr>
<tr>
<td>2013</td>
<td>110</td>
<td>55</td>
<td>5500</td>
<td>6050</td>
</tr>
</tbody>
</table>

Percentage change in:

\[
\text{Real GDP} = \frac{\Delta \text{ in real GDP}}{\text{Base year real GDP}} \times 100 = \frac{500}{5000} \times 100 = 10\%
\]

\[
\text{Normal GDP} = \frac{\Delta \text{ in nominal GDP}}{\text{Base year nominal GDP}} \times 100 = \frac{1050}{5000} \times 100 = 21\%
\]

24. Balance of payment account records the inflows and outflows of foreign exchange of a country during a period of time.

'Balance of Trade' is the difference between exports of goods and imports of goods i.e. between visible inflows and visible outflows of foreign exchange. 'Balance on current
account' is the difference between the sum of both visible and invisible (Service, income and transfers) inflows and outflows of foreign currency.

Remittances from family members from abroad is accounted for under unilateral transfers of the current account.

25. The various components that are used under the income method to calculate national income are:

i) Compensation of employees which includes - wages and salaries in cash and kind and employers' contribution to social security benefits.

ii) Operating surplus - which includes rent and royalties, interest and profit earned by a firm.

iii) Mixed income of self employed which includes any income that has 2 or more factor income, which cannot be accounted for separately.

iv) Net factor income from abroad, which in the difference between factor income from abroad and factor income to abroad.

OR

The precautions that need to be kept in mind when using the value added method of calculating national income are:

i) Avoid double counting of goods and services as these tend to inflate national income estimates.

ii) Do not include the value of second hand goods being sold as their value was accounted for at the time of first production.

iii) Include imputed value of own account production in total output as output has been produced.

iv) Include the imputed value of owner occupied dwellings as houses provide housing services.

26. Excise duty - Indirect tax

Indirect tax is a tax where the payer and the bearer of the tax are different people.

Income tax - Direct tax

Direct tax is a tax where the payer and bearer of the tax is the same person.

Besides the objective of raising more revenue, the proposals also serve some welfare objectives. Firstly, raising excise duty on cigarettes will make them more expensive. The price rise is expected to discourage cigarette smoking, which will positively impact the health of people and raise their welfare.

Secondly, raising income tax on income above Rs. one core will reduce the gap between the rich and poor people. In other words, income inequalities will reduce.
Thirdly, the extra revenue raised from these proposals could be spent on health education and other welfare enhancing schemes to improve the welfare of the poor.

27. Diagram (a) gives a straight line consumption curve.

Consumption (c) + saving (s) = income (Y)  \hspace{1cm} (1)

At zero level of income, there is an autonomous consumption of OC. The corresponding saving at this income level is (-)OC. The saving curve starts at (-)C. \hspace{1cm} (1)

At the income level OB, where the 45° reference line intersects the consumption curve, C=Y. At this income level, saving is equal to zero. Thus, we get point B on the x-axis of the saving curve.

By connecting (-)C and B, we get the saving curve.

- At income level OB, APC = 1 as APC = \frac{c}{Y} and at the income level C = Y. \hspace{1cm} (1)

- A level of income at which APS is negative is any level of income less than OB. APS = \frac{s}{Y} and here saving is negative. \hspace{1cm} (1)

28. **Cash reserve ratio** is the ratio of bank deposits that commercial banks must keep as reserves with the Central Bank.

When CRR falls, commercial banks keep lower reserves with the Central Bank. This releases funds that were earlier held with the Central Bank for commercial banks to lend. As lending increases, the money creation in the economy expands and money supply in the economy increases. \hspace{1cm} (2)
Open market operations refers to the sale and purchase of government securities by the Central Bank in the open market. \( \text{(1)} \)

When there is a need to reduce the money supply in the economy, the Central Bank starts selling government securities. Those who buy make payments by cheques to the central bank. The money flows from commercial banks to the Central Bank. This reduces the deposits held by commercial banks. This reduces money supply as well as the money creation power of the commercial banks. \( \text{(2)} \)

29. (a) National income using expenditure method:

\[
(ii) \quad + (vi) + (iv) + (vii) - (viii) - (x) + (iii) - (v) \\
200 + 50 + 40 -10 +20 -60 +20 -10 \\
= Rs 250 crores \quad \text{(1½)}
\]

(b) Gross National disposable income

\[
\text{National income} + (ix) + (x) - (iii) + (i) \\
= 250 + 30 + 60 - 20 + 5 \\
= Rs 315 crores \quad \text{(½)}
\]

OR

(a) Private Income

\[
(i) + (iv) + (viii) + (ix) \\
= 350 + 10 + 15 + 25 \\
= Rs 400 crores \quad \text{(1)}
\]

(b) National Income

\[
\text{Private income} + (vii) - (x) + (ii) + (iii) \\
= 400 + 20 - 30 + 25 + 50 \\
= Rs 465 crores \quad \text{(½)}
\]