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QUESTION BANK

ECONOMICS

DESIGN OF SAMPLE QUESTION PAPER FOR MARCH, 2009 EXAMINATION

Time : 3 hours **Maximum Marks : 100**

The weightage to marks over different dimensions of the question paper shall be as under.

Part A : WEIGHTAGE TO CURRENT/SUBJECT UNITS

S.No.	*Content Unit*	*Mark*
Part A :	**Introductory Micro Economics**	
1.	Introduction	4
2.	Consumer Behaviour and Demand	18
3.	Producer Behaviour and Supply	18
4.	Forms of Market and Price Determination	10
5.	Simple applications of Tools of demand and supply curves	
	Total	**50**

Part B : INTRODUCTORY MACRO ECONOMICS

1.	National Income and Related Aggregates	15
2.	Determination of Income and Employment	12
3.	Money and Banking	8
4.	Government Budget and the Economy	8
5.	Balance of payments	7
	Total	**50**
	Grand Total	**100**

WEIGHTAGE TO FORMS OF QUESTIONS

S.No.	*Forms of Questions*	*Marks for each question*	*No. question*	*Total Mark*
1.	Very short answer type (VSA)	1	10	10
2.	Short answer type (SAI)	3	10	30
3.	Short answer type (SAII)	4	6	24
4.	Long answer type (LA)	6	6	36
	Total		**32**	**100**

C. No. of Sections

The questions paper will have two section A and B.

D. Scheme of Option

There will be no overall choice. However, there is internal choice in one question of 3 marks and one question of 4 marks and one question of 6 marks in each section.

E. Weightage to forms of Questions

S.No.	*Estimated Difficulty Level of Questions*	*Percentage*
1.	Easy	30%
2.	Average	50%
3.	Difficult	20%

F. Typology of Questions

In order to asses different abilities related to the subject, the question paper is likely to include open-ended questions and numerical questions.

CONTENTS

UNIT 1

INTRODUCTION

POINTS TO REMEMBER

- Study of Economics is divided into two branches

  (a) Micro economics (b) Macro economics

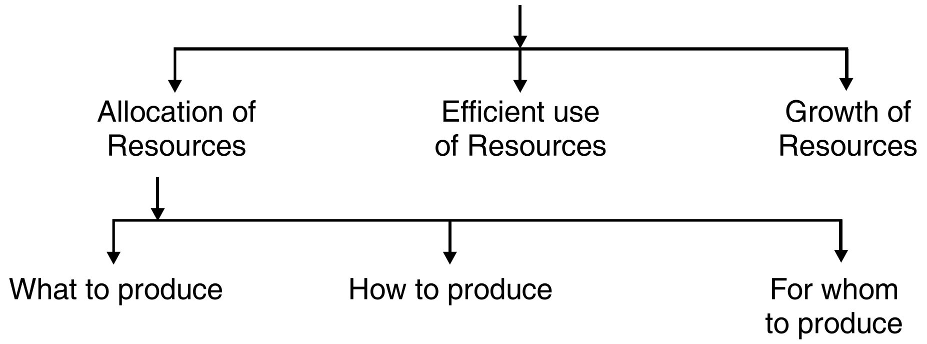
- Micro economics studies the behaviour of individual economic units.
- Macro economics studies the behaviour of the economy as a whole.
- Positive economics analyses 'what is' with out making any value judgement.
- Normative economics deals with 'what ought to be' and based on value judgements not verifiable from the facts.
- A market economy is an economy in which all economic activities are organised through the freely operating market forces of demand and supply.
- Centrally planned economy is an economy is which all economic activities are planned and decided by the central planning authority or by the Government.
- Economic problem is the problem of allocation of limited resources available in the economy.
- Cause of economic problems are :

  (a) Unlimited Human Wants

  (b) Limited Economic Resources

  (c) Alternative uses of Resources.

- Central problems of an Economy are



- Opportunity cost is defined as the value of the benefit that is forgone by choosing one alternative rather than other.
- Production possibility frontier (PPF) shows different combinations of a set of two goods which can be produced with given resources and production technology.
- Production possibility curve :
    (a) Slopes downward and
    (b) Concave to the point of origin.
- Rightward shift of PPF indicates increase in resources while.
- Leftward shift of PPF indicates decrease in resources.
- Marginal Rate of Transformation (MRT) is the ratio of number of units of a good sacrificed to produce one more unit of the other good.
- MRT can also called Marginal opportunity cost. It is defined as the additional cost in turns of number of units of a good sacrificed to produce an additional unit of the other good.

VERY SHORT ANSWER TYPE QUESTIONS (1 MARK)

1. Give the meaning of microeconomics
2. Write two examples of micro economic studies .
3. Write the meaning of macroeconomics.
4. Give two examples of macro economics studies.
5. Define opportunity cost.
6. Why does an economic problem arise.
7. Write two characteristics of resources.
8. What do you mean by scarcity?
9. Why is the slope of PPF downward?
10. Why does the PPF look concave to the origin?
11. Define Marginal Rate of Transformation.
12. What is positive economic analysis?
13. Explain Normative economic analysis.
14. Define Market Economy.
15. What do you mean by centrally planned economy?

HOTS

16. Sugar industry is a subject matter of micro economics. Give reason.
17. What do you mean by alternative uses of resources?
18. What will be the shape of PPF when MRT is constant?
19. Unemployment in India is a subject matter of Microeconomics or Marcoeconomics, give reason.

SHORT ANSWER TYPE QUESTIONS (3/4 MARKS)

1. Distinguish between microeconomics and macroeconomics. Give example.
2. Why does an economic problem arise? Explain the problem of 'How to Produce'?
3. Explain the problem of 'What to Produce' with the help of an example.
4. 'For whom to produce' is a central problem of an economy. Explain.
5. State three differences between normative economic analysis and positive economic analysis.
6. Write any three differences between Market Economy and Centrally Planned Economy.

HOTS

7. What is PP Frontier? Explain it with the help of an imaginary schedule and diagram.
8. Show the following situation with PPF
   (a) Fuller utilisation of resources
   (b) Growth of resources.
   (c) Under utilisation of resources.
9. Why is PPC called opportunity cost curve?
10. Define opportunity cost and explain it with the help of an example.
11. Explain PPF is
    (a) down ward sloping.
    (b) concave to the point of origin.
12. Calculate MRT from following table what will be the shape of PPF and why?

Good A (units)	*Good B (units)*
60	0
35	1
20	2
10	3
5	4

ANSWER OF VERY SHORT TYPE QUESTIONS

1. Micro Economics is that branch of economics in which economic problems are studied at individual level.
2. In microeconomics we study the behaviour of consumer, firms, industries and markets etc.
3. Macro economics is that branch of economics which studies the economy as a whole and its aggregates.
4. National income, the level of employment.
5. Opportunity cost is defined as the value of the benefit that is forgone by choosing one alternative rather than the other.
6. An economic problem arises due to scarcity of resources having alternative uses in relation to unlimited wants.
7. Resources are scare (limited) and they have alternative uses.
8. Scarcity refers to a situation in which demand for a factor is more than its supply.
9. PP Frontier slope downward because production of one commodity (x) can be increased only by decreasing the production of second commodity (y).
10. Due to increases marginal opportunity cost PPF becomes concave to the point of origin.
11. Marginal rate of transformation (MRT) is the ratio of one good sacrificed to produce more unit of the other good.
12. Positive economic analysis deals with actual or realistic situation. It expresses what is.
13. Normative economic analysis deals with idealistic situation. It expresses what should be.
14. A market economy is an economy in which the central problems are solved through the freely operating market forces of demand and supply.
15. A planned economy is an economy in which the central problems are solved by Government through planning.
16. Sugar industry is a subject matter of micro economics because it is only a unit of industries.
17. Alternate use of resources mean more than one uses to which a resource can be put and imply that resource can be used only for one purpose at a time.
18. Shape of PPF will be a straight line sloping down ward.
19. Unemployment in India is a subject matter of macroeconomics because it relates to whole economy.

HINTS [3 MARKS QUESTIONS]

9. Because shape of the PPF at each and every point measures opportunity cost of one commodity interms of alternative commodity given up (sacrificed). The rate of this sacrifice is called the

marginal opportunity cost of the expanding good.

12.

Good A	Good B	MRT = $\Delta A/\Delta B$
60	0	–
35	1	25 : 1
20	2	15 : 1
10	3	10 : 1
5	4	5 : 1

UNIT 2

CONSUMER'S BEHAVIOUR & THEORY OF DEMAND

POINTS TO REMEMBER

- **Consumer :** The economic agent who consumes final goods and services.
- **Total utility :** It is the sum satisfaction from consumption of all the units at a given time.
- **Marginal Utility :** It is a net increase in total utility by consuming an additional unit of a commodity.
- **Law of Diminishing Marginal Utility :** As consumer consumes more and more units of commodity. The utility derived from the last unit goes declining.
- **Consumer's Bundle :** It is a quantitative group of two goods which can be afforded by a consumer with his given income.
- **Budget set :** It is quantitative combination of those bundles which a consumer can buy with his income at prevailing market prices.
- **Consumer Budget :** It states the real income or purchasing power of the consumer in which he can afford to buy the given quantity at given price.
- **Budget Line :** Shows those combinations of two goods which a consumer can buy from this limited income.
- **Change in Budget Line**

  1. There can be parallel shift (leftwards or rightwards) due to change in income.
  2. Rotation of budget line (leftward or rightward on one axis) due to change in price of any one good.

- **Consumer's Equilibrium :** Consumer is in equilibrium when he gets maximum satisfaction from his limited income.

  Condition of Consumer's Equilibrium

  (a) In terms of utility :

  In case of one good → $MU_x = P_x$

  where MU_x → Marginal utility of good X

  P_x → Price of Good X

(b) In terms of Indifference curve : There should be

(i) Falling MRS (Marginal Rate of substitution).

(ii) $MRS_{xy} = \frac{P_x}{P_y}$

$P_X \rightarrow$ Price of good X

$P_Y \rightarrow$ Price of good Y

(iii) Budget line should be tangent to indifference curve.

Determinants of Demand

- Change in price
  - Change in Quantity Demanded
    - Extension in Demand
      - Decrease in price
        - Downward movement along a Demand curve
    - Contraction in Demand
      - Increase in price
        - Upward movement along a Demand curve
- Other Factors
  - Consumer Income
  - Taste and Preference
  - Change in price of related good
  - Future expectation to change in price
  - Change in number of consumer.
  - Change in Demand
    - Increase in Demand
      - Rightward shift of Demand curve
        - Causes
          - (i) Increase in consumers income
          - (ii) Increase in price of substitute good
          - (iii) fall in price of complementary good.
          - (iv) Increase in number of consumer
          - (v) Future expectation of Increase in price.
    - Decrease in Demand
      - Leftward shift of Demand
        - Causes
          - (i) Decrease in income of consumer
          - (ii) Decrease in price of substitute good
          - (iii) Increase in price of complementary good.
          - (iv) Decrease in number of consumer
          - (v) Future expectation of Decrease in price.

- **Demand :** It is that quantity which a consumer is willing to buy at given price.
- **Market Demand :** It is the sum total quantity purchased by all the consumers at given price in the market.
- **Demand Function :** It is the functional relationship between the demand of a good and factors effecting demand.

- **Change in Demand :** When price commodity increases or decreases due to change in any one of its determinants.
- **Price Elasticity of Demand :** It measures the degree of responsiveness of demand to change in price of the commodity.

Methods of Measuring Price Elasticity of Demand

Percentage method | Total expenditure method | Geometric method

Percentage Method

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

$E_d \rightarrow$ Elasticity of Demand

$\Delta Q \rightarrow$ Change in quantity

$\Delta P \rightarrow$ Change in Price

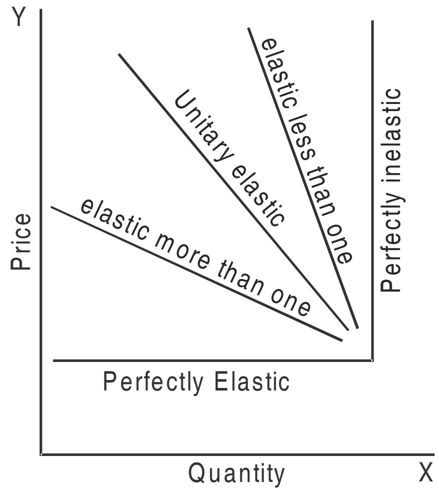
$P \rightarrow$ Initial Price

$Q \rightarrow$ Initial Quantity

Or $$E_d = \frac{\text{Percentage Change in Quantity}}{\text{Percentage Change in Price}}$$

- **Total Expenditure Method :** It measures price elasticity of demand on the basis of change in total expenditure incurred on the commodity by a household as a result of change in its price.
- **Geometric Method :** Elasticity of demand at any point is measured by dividing the length of lower section of the demand curve with the length of upper section of demand curve at that point.

Degree of Price Elasticity of Demand



- **Factors effecting Price elasticity of Demand**
  - (a) Behaviour of consumer
  - (b) Nature of commodity
  - (c) Part of income to be expanded on the commodity
  - (d) Number of close substitute
  - (e) Various uses of commodity
  - (f) Time period
  - (g) Habitual necessities.

VERY SHORT ANSWER TYPE QUESTIONS (1 MARK)

1. What is meant by utility?
2. How is Total utility derived from marginal utilities?
3. What is Law of Diminishing Marginal Utility?
4. Under what situation total utility will be maximum?
5. State condition of consumer's equilibrium in respect of one good.
6. Define consumers equilibrium.
7. What is meant by Marginal Rate of Substitution (MRS).
8. Define consumer's bundle.
9. What is budget set.
10. Define Indifference curve Map.
11. How is budget line defined?
12. Why does higher indifference curve give more satisfaction?
13. What is the impact of diminishing marginal rate of substitution on indifference curve?
14. What will be the impact on the equilibrium due to increase in income in case of normal good?
15. How is market demand schedule derived with the help of individual demand schedules?
16. Define normal good.
17. How does availability of substitute good affect the elasticity of demand?
18. Demand of good 'X' falls due to increase in the income of the consumer what type of good 'X' is.
19. What will be the impact on demand of the substitute good due to increase in price of the good?

20. A rise in price of a good results in a decrease in expenditure on it. Is its demand elastic or inelastic?

21. What is meant by market demand?

22. Define demand schedule.

23. What cause an upward movement along a demand curve?

24. If the number of consumers increase in which direction will the demand curve shift?

25. A straight line demand curve is given. What will be elasticity of demand on the mid point of this curve.

26. If the slope of a demand curve is parallel to X-axis, what will be the elasticity of demand?

27. Why is elasticity of demand negative?

28. Why is demand of water inelastic?

H.O.T.S.

29. What happens to total expenditure on a commodity when its price falls and its demand is price elastic?

30. Why does total utility increases at diminishing rate due to continuous increase in units of a good Consumed?

31. Due to decrease in price of pen why does the demand of ink increase?

32. When does budget line shift leftwards?

33. Under what situation does the slope of changed budget line be flatter?

34. What change should lake place in price of the combination of two goods so that the slope of budget line becomes steeper?

35. What will be the behaviour of total utility when marginal utility curve lies below X-axis?

38. What are the reasons behind Law of demand? State any two.

SHORT ANSWER TYPE QUESTIONS (3-4 MARKS)

1. Explain the law of diminishing marginal utility with the help of a utility schedule.

2. Explain consumers equilibrium with utility approach when consumer is consuming one good.

3. What do you mean by budget line? What are the reasons of change in budget line?

4. Explain the relationship between total utility and marginal utility with the help of schedule.

OR

What changes will take place in total utility when –

(a) Marginal utility curve has above X–axis.

(b) Marginal utility curve touches X–axis

(c) Marginal utility curve lies below X–axis.

5. State two features of indifference curve.
6. Why does two indifference curves do not touch each other?
7. Under what situations there will be parallel shift in budget line?
8. Explain the effect of a rise in the prices of 'related goods' on the demand for a good X.
9. Why does demand of a normal good increases due to increase in consumer's income?
10. "If a product price increases, a family's spreading on the product has to increase". Defend or refute.
11. State elasticity of demand of followings

    (a) Luxurious goods

    (b) Goods of alternate use

    (c) Necessity goods.
12. Distinguish between expension of demand and increase in demand with the help of diagram.
13. What do you mean by marginal rate of substitutions? Explain with the help of a numerical example.
14. Measure Price Elasticity of Demand on the following points of a straight line demand curve :

    (a) Centre point of the demand curve.

    (b) Demand curve intercepting y-axis

    (c) Demand curve intercepting x-axis.
15. Explain negative relationship between price and demand.
16. Distinguish between change in demand and change in quantity demanded.
17. What will be the effect of following on elasticity of demand.

    (a) time factor

    (b) nature of the product.
18. What will be the impact on demand if, elasticity of demand is same :

    (a) fall in price of good 'X' by 5%

    (b) increase in price of good 'Y' by 15%

19. "A good may be inferior for one consumer and normal for another". Do you agree with this statement. Give reasons in support of your answer.

20. What will be the slope of demand curve under following situations.

    (a) Perfectly elastic demand

    (b) Perfectly inelastic demand

    (c) Unit elastic demand.

21. State the factors of rightward shift of demand curve. Explain any one.

22. State the factors of leftward shift of demand curve. Explain any one.

23. How does 'a portion of income spent on a good' effect elasticity of demand.

24. What will be elasticity of demand if

    (a) Total expenditure increases due to increase in price.

    (b) Total expenditure increases due to fall in price.

25. How does the nature of a commodity influence its price elasticity of demand.

NUMERICAL QUESTIONS

26. Calculate the price elasticity of demand for a commodity when its price increases by 25% and quantity demanded falls from 150 units to 120 units.

27. The price elasticity of demand of good 'X' and 'Y' is same. If price of good 'X' falls by 10% and price of good 'Y' increase by 10% then what changes will take place is demand of good 'X' and good 'Y'.

28. If the price of a commodity rises from Rs. 8 per unit to Rs. 10 per unit, a consumers demand falls from 110 units to 100 units. Find out the price elasticity of demand for this commodity.

29. At the price of Rs. 4 per unit, a 'consumer of demand is –2. How many units will the consumer buy at Rs. 3 per unit?

30. Price elasticity of demand of a good is –3. At a price of Rs. 5 per unit, 80 units of this good one bought. How many units will be bought at a price of Rs. 4 per unit. Calculate.

31. A consumer buys 100 units of a good at a price of Rs. 5 per unit. When price changes he buys 140 units. What is the new price if elasticity of demand is –2.

H.O.T.S.

32. Does increase or decrease in income of the consumer have the same effect on every type of commodity?

33. State four determinants of price elasticity of demand.

34. Fill in the gaps in the following equations :

(i) $MU = \frac{\Delta ?}{\Delta Q}$ (ii) $? = \Sigma MU$

(iii) $MU_n = TU_n - ?$ (iv) $e_D = \frac{\Delta q}{?} \times \frac{P}{Q}$

35. Differentiate between :

(i) Normal and Inferior goods

(ii) Complimentary and substitute goods.

36. Why the indifference curve should be tangent to the budget line at the point of consumer's equilibrium.

37. Why consumer's equilibrium is not attained when marginal utility is greater than price of a good?

38. Distinguish between rightward shift of demand curve and downward movement along the demand curve.

39. Why is budget line called as income line or price line?

40. Why does marginal rate of substitution decreases in respect of indifference curve?

41. Why does consumer stop consumption in case where marginal utility is less than price of a good?

LONG QUESTIONS (6 MARKS)

1. Using indifference curve approach explain the conditions of consumers equilibrium.

2. Explain the determination of consumers equilibrium with the help of a schedule and diagram in case of single commodity by using utility approach.

3. Draw a straight live down ward sloping demand curve touching both the axis. Mark the points on this curve indicating different degrees of price elasticity of demand.

4. Why does demand curve slope should be downward?

5. Explain the determinants of price elasticity of demand.

6. Explain the law of demand and state its exceptions.

7. Explain the role of budget line in determination of consumers equilibrium.

8. Explain the causes of increase in demand (rightward shift of demand curve).

9. With the help of diagrams, explain the effect of following changes on the demand of a commodity.

(a) A fall in the income of its buyer.

(b) A rise in the income of its buyer.

1 0. Explain with the help of diagrams the effect of following changes on the demand of a commodity.

(i) A fall in the price of substitute good.

(ii) A fall in the price of complementary good.

H.O.T.S.

11. With the help of numerical example measure price elasticity of demand in the following conditions by total expenditure method :

(i) Demand falls when price is constant.

(ii) Price falls while demand is constant.

12. On the basis of informations given in the following table, prepare the demand schedules for three commodities.

Price in	*Total Expenditure in Rupees*		
Rs.	***A***	***B***	***C***
2	6	6	6
3	6	5	7
4	6	4	8

13. Explain followings :

(i) Two indifference curves never intersects each other.

(ii) Income effect of inferior good is negative.

(iii) Change in quantity demanded is the explanations of law of demand.

14. Following statements are true or false give reasons :

(i) Increase in number of consumers shifts the demand curve rightward.

(ii) The demand of a commodity becomes elastic of its substitute good is available in the market.

(iii) The price elasticity of demand is equal to unity at a point situated in the middle of a straight line demand curve.

ANSWERS OF VERY SHORT ANSWER TYPE QUESTIONS

1. Utility is the quality of goods of satisfying human wants.

2. Total utility is derived by summing up the marginal utilities.

3. Law of diminishing marginal utility states that as more and more standard units of a commodity are consumed continuously marginal utility must decline.

4. Marginal utility will be zero.

5. $MU_X = P_x$
6. Consumers equilibrium refers to a situations in which a consumer gets maximum satisfaction from his given income and market price.
7. MRS is the amount of good 2 what consumer is willing to give up for getting an extra unit of good 1.
8. Combination of the amount of two goods will be called as consumption or consumer bundle.
9. The set of bundles available to the consumer with his given income at prevailing market price is called the budget set.
10. A family of indifference curve indicating different levels of satisfaction called indifference map.
11. Budget line is a line showing all different possible combinations of two goods which a consumer can buy in given his budget and the price of both goods.
12. Higher difference curve shows a higher level of satisfactions. It shows the various combinations of excess quantity of two goods than lower indifference curve.
13. Indifference curve become convex towards the origin.
14. Equilibrium will be shifted on a higher indifference curve.
15. By lateral summations of individual curves.
16. These are the goods, the demand for which increases as income of the buyer rise. There in positive relation between income and demand of these goods.
17. The demand of a good becomes elastic if its substitute good is available in the market.
18. Good 'X' is an inferior good.
19. The demand of substitute good will increase.
20. Elastic.
21. Market demand is the sum of total demand of all the consumers in the market at a particular time and at a given price.
22. Demand schedule express the relations between different quantities of the commodity demanded at different prices in form of a table.
23. Increase in price while other factors are constant.
24. Rightward.
25. Equal to unit.
26. Perfectly elastic.
27. Due to inverse relation between price and demand.
28. Because water is a necessity good.

29. Total expenditure will increase.

30. As more and more units of commodity are consumed, marginal utility derived from each successive unit tends to diminish so total utility increases at diminishing rate up.

31. These are complimentary goods.

32. When the income of consumer decreases.

33. When there is decrease in price of a good showing on X-axis is constant.

34. When there is increase in price of good showing on X-axis while price of good showing on y-axis is constant.

35. Total utility start to decline.

UNIT 3

PRODUCTION BEHAVIOUR AND SUPPLY

POINTS TO REMEMBER

- Production function shows the functional relationship between physical input and physical output.

  Ox = F (i., i_2 ... in)

  Ox → Production of Good X

  f → function of

  i, i_2 ..... in → inputs

- Total production refers to the sum total of production done by using all units of variable factors over a given period of time.
- Average production is the per unit output of variable factor (labour) employed.

$$AP = \frac{TP}{\text{Variable input}}$$

- Marginal product is addition to total product resulting from employing one additional unit of variable input.
- **Returns to a factor :** In a short period when additional units of variable factors re employed with given fixed factors then returns to a factor operates. Returns to a factor shows the changes in total products which arises due to change in ratio between fixed and variable factor. They are as follows :

  (A) **Increasing returns to a factor :** In the initial stage total production increases at increasing rate when increasing variable factors are employed with fixed factors. It means total production increases at faster rate than increase in variable factors.

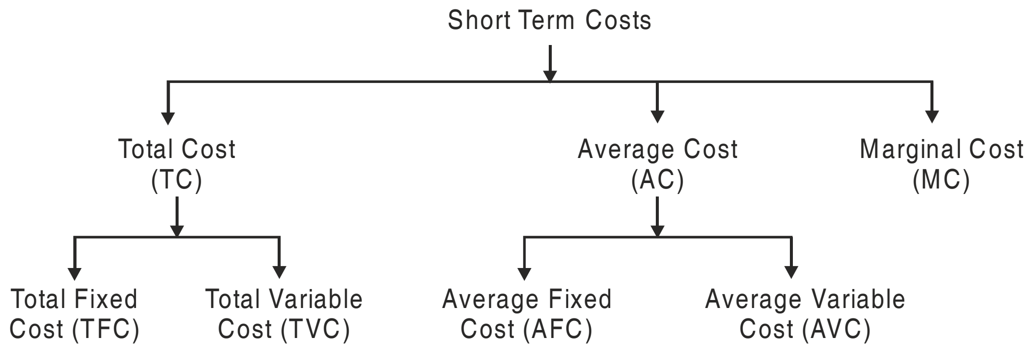
  (B) **Decreasing returns to a factor :** As more and more units of variable factors are employed with given fixed factors, then total product increases at diminishing rate. It means the rate of increase in total production is less than the rate at increase in variable factors.

  (C) **Negative returns to a factor :** This is the last stage of returns to a factor. So long as more and more units of variable factors are employed with given fixed factors, total production starts decreasing and marginal product becomes negative.

Relation between Total, Average and Marginal Product

1. So long as marginal product rises, total product increases at increasing rate.
2. Marginal product starts falling but remains positive, total product rises at diminishing rate in this stage.
3. When marginal product becomes negative, then total product starts falling in this stage.
4. So long as average production is less than marginal product, average production increases Marginal product intersects average product at the point where average product is maximum. After this average product starts falling and is more than marginal product in this stage.

- **Cost :** Cost is the sum of direct (explicit cost) and indirect cost (explicit cost).
- Those monetary payments, which are incurred by producers for payment of factor and non-factor inputs are called Direct Cost.
- Implicit cost is the cost of self owned resources of the production used in production process.



- Total cost is the sum of total fixed cost and total variable cost.

  $TC = TFC + TVC$

  $TC = AC \times Q$

- Total fixed cost remains constant at all levels of output. It is not zero even at zero output level. Therefore, TFC curve is parallel to OX-axis.

  $TFC = TC - TVC$

  $TFC = AFC \times Q$

- Total variable cost is the cost which vary with the quantity of output produced. It is zero at zero level of output. TVC curve is parallel to TC curve.

  $TVC = TC - TFC$

  $TVC = AVC \times Q$

- Average cost is per unit of total cost. It is the sum of average fixed cost and average variable cost.

$$AC = \frac{TC}{Q}$$

$$AC = AFC + AVC$$

- Average fixed cost is per unit of total fixed cost.

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

$$AFC = AC - AVC$$

- Per unit of total variable cost is called average variable cost.

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

$$AVC = AC - AFC$$

- Net increase in cost for producing one additional unit is called marginal cost.

$$MC_n = TVC_{n'} - TVC_{n-1}$$

$$MC = \frac{\Delta TVC}{\Delta Q}$$

Relation Between Short-term Costs

- Total cost curve and total variable cost curve remains parallel to each other. The distance between these two curves is equal to total fixed cost.
- With increase in level of output, the vertical distance between AFC curve and AC curve goes on increasing. On contrary the vertical distance between AC curve and AVC curve goes on decreasing but these two curves never intersect because average fixed cost is never zero.
- Marginal cost curve intersects average cost curve and average variable cost curve at their minimum point. After the point of intersection with increase in output, AC curve and AVC curve starts rising.
- Average cost and average variable cost falls till they are more then marginal cost. When these two costs are less than marginal cost, in that situation both (AC and AVC) rise.
- Money received from the sale of product is called revenue.
- Total revenue is the amount received from the sale of given units of a commodity over a particular period of time.

$$TR = AR \times Q$$

$$TR = \sum MR$$

- Per unit revenue received from the sale of given units of a commodity is called average revenue. Average revenue is equal to price.

$$AR = \frac{TR}{Q} \text{ or } \frac{P \times Q}{Q} = P = \text{Price.}$$

- Marginal revenue is net addition to total revenue when one additional unit of output is sold.

$$MR = \frac{\Delta TR}{\Delta Q}$$

- Behaviour of TR, AR and MR when per unit cost remains constant or there is perfect competition in the market.

  (a) Average revenue and marginal revenue remains constant at all levels of output and AR and MR curves are parallel to ox-axis.

  (b) Total revenue increases at constant rate and TR curve is positively sloped straight line passing through the origin.

- Behaviour of TR, AR and MR when price falls with additional unit of output sold or there is monopoly or monopolistic competition in the market.

  (a) Average revenue and marginal revenue curves have negative slope. MR curve lies below AR curve.

  (b) Marginal revenue falls, twice the rate of average revenue.

  (c) So long as marginal revenue is positive, total revenue increases. When marginal revenue is zero, total revenue is maximum and when marginal revenue becomes negative, TR starts falling.

- **Concept of Producer's Equilibrium**

(A) **TR and TC Approach :** According to this approach the conditions of producer's equilibrium are as follows :

  (a) TR exceeds TC to the maximum and is positive.

  (b) After the equilibrium point, with increase in production, profit falls.

  (c) The tangent of TR and TC curve should be parallel.

(B) **MR and MC Approach :** Conditions of producers equilibrium according to this approach are :

  (a) Equality between MR and MC

  (b) MC curve should cut the MR curve from below at the point of equilibrium.

Or

MC should be more than MR after the equilibrium point, with increase in output.

- **Supply :** Refers to the amount of the commodity that a firm or seller is willing to offer or to sell in a given period of time at various prices.

- **Individual Supply :** Refers to quantity of a commodity that an individual firm is willing and able to offer for sale at each possible price during a given period of time.

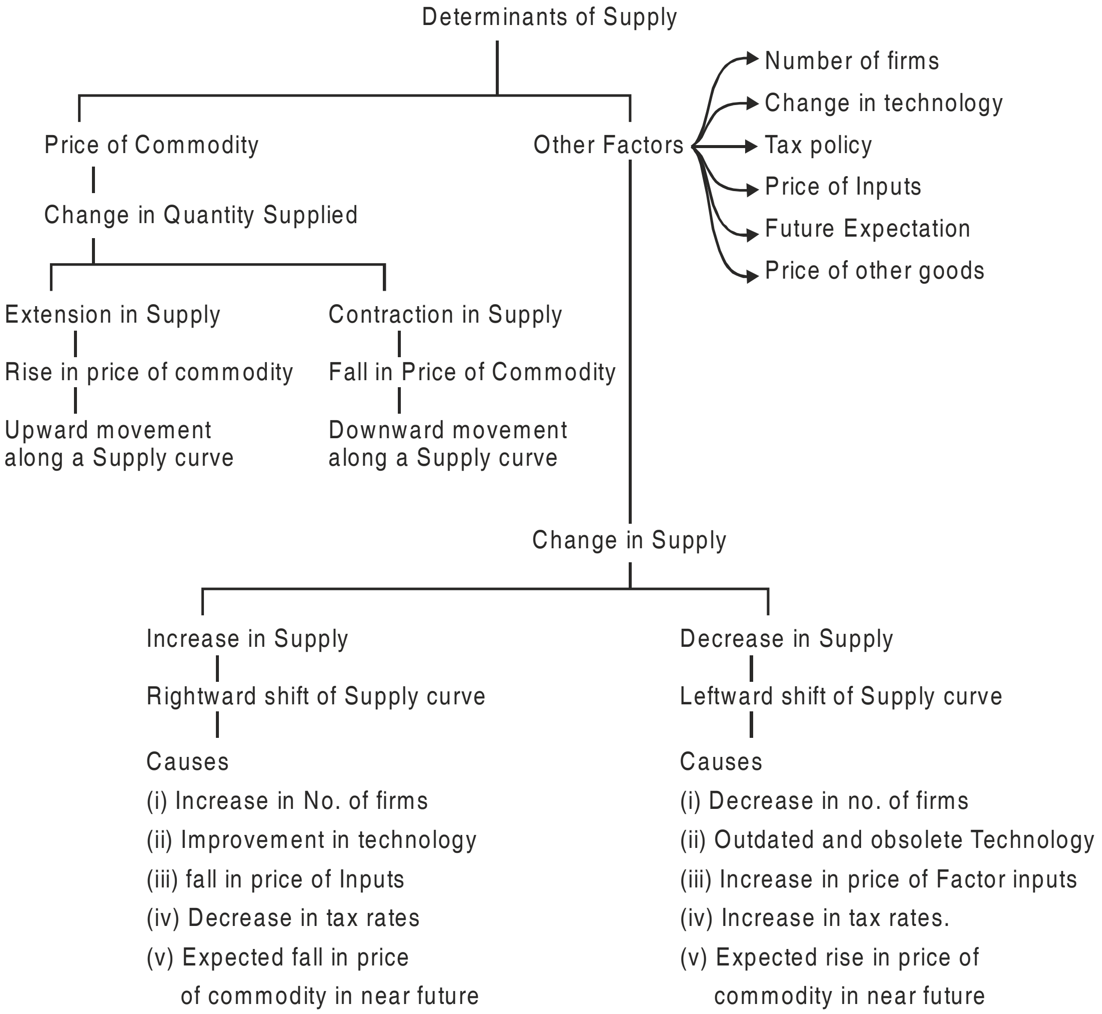
- **Stock :** Refers to the total quantity of a particular commodity available with the firm at a particular point of time.
- **Supply Schedule :** Refers to a table which shows various quantities of a commodity that a producer is willing to sell at different prices, during a given period of time.
- **Supply curve :** Refers to the graphical representation of supply schedule.
- **Law of Supply :** States the direct relationship between price and quantity supplied, keeping other factors constant.
- **Reasons for Law of Supply :** 1. Profit motive. 2. Change in number of firms 3. Change in stock.

Exceptions to Law of Supply

1. Future Expectation
2. Agricultural goods
3. Perishable goods
4. Rare goods
5. Backward countries.

- **Supply Function :** Refers to functional relationship between supply and determinants of supply. Mathematically it can be expressed :

$$S_x = F(P_x, T, N_f, P_f, G_p, E_x)$$



- **Price Elasticity of Supply :** Refer to the degree of responsiveness of supply of a commodity with reference to a change in price of such commodity. It is always positive due to direct relationship between price and quantity supplied.

$$\text{Price Elasticity of Supply } (\text{Es}) = \frac{\text{Percentage change in quantity supplied}}{\text{Percentage change in price}}$$

- **Methods for measuring price elasticity of supply :**
  1. Percentage Method
  2. Geometric Method
- **Degrees of Elasticity of Supply :** If the tangent to the supply curve passes through the point of origin, E_s at that point is equal to unity. If the tangent intersects the x-axis, E_s at that point is less than unity and if tangent intersects the y-axis E_s at that point will be greater than unity.

VERY SHORT ANSWER TYPE QUESTIONS (1 MARK)

1. Define production function.
2. Define marginal product.
3. What will be the behavior of total product when marginal product of variable input is falling but is positive?
4. What is the relation between average and marginal product when average product is falling?
5. Define average production.
6. What do you mean by fixed factors of production?
7. State the feature of factors, by which some of the factors of production are called variable factors?
8. When is total product maximum?
9. How does fall in total product affects marginal product?
10. What do you mean by cost?
11. Define explicit costs.
12. Which cost curve is parallel to ox-axis? Why?
13. What do you mean by implicit costs?
14. Define marginal cost.
15. Why does the difference between average total cost and average variable cost falls with increase in output.
16. Define Revenue.
17. At what rate average and marginal revenue falls, with fall in per unit price of a good.

18. What will be the behaviour of Average revenue when total revenue increases at constant rate?
19. What do you mean by marginal revenue?
20. What will be the behaviour of total revenue when marginal revenue is zero?
21. Why does average revenue curve not touch ox-axis.
22. What do you mean by producer's equilibrium
23. State any two conditions of producers equilibrium according to total revenue and total cost approach.
24. What do you mean by normal profit?
25. What do you mean by break-even point?
26. Define supply.
27. What do you mean by individual supply schedule?
28. What is meant by market period?
29. What is supply function?
30. Name two determinants of supply.
31. What is meant by change in supply?
32. What type of change in price is the cause of upward movement along a supply curve?
33. What effect does an increase intake rates have on supply of a commodity?
34. What causes a downward movement along a supply curve?
35. What is meant by leftward shift of supply curve?
36. What effect does a decrease in price of input on supply curve of the commodity?
37. Why does a supply curve have a positive slope.
38. What is meant by elasticity of supply?
39. What is the price elasticity of supply, if supply curve is parallel to y-axis.
40. When does the elasticity of supply of commodity called equal to unity?
41. When the producer increase the supply of a good at same price, give two reasons.
42. What is meant by Law of Supply?
43. Write two exceptions of law of supply.
44. What causes an extension in supply?
45. What term is used when less quantity is supplied with a fall in the price of a commodity?
46. If the price of a commodity falls by 10% and, consequently, the quantity supplied decreases by

20%. What will be its price elasticity of supply?

H.O.T.S.

1. Why is total variable cost curve parallel to total cost curve.
2. Why does average fixed cost falls with increase in output?
3. Why is total fixed cost curve parallel to ox-axis.
4. Under which situation MR will fall when an additional quantity of a good is sold?
5. What behaviour of per unit price will cause the equality of average and marginal revenue.
6. If two supply curves intersect, which one has the higher price elasticity?
7. Give one differences between law of supply and price elasticity of supply.
8. What is the price elasticity of supply associated when the supply curve passing through to intersect to x-axis?
9. Why does a producer moves downward along a supply curve due to decrease in price of commodity?
10. What is the price elasticity of supply associated when a supply curve passing on 40° angle through the origin?
11. When does the supply curve shifted to rightward while price remains constant why the supply increases due to increase in price?
12. What effect does an increase in price of competitive good on the supply of a commodity?
13. How does the imposition of a unit tax affect the supply curve of a firm?

SHORT ANSWER TYPE QUESTIONS (3-4 MARKS)

1. Why does the law of diminishing returns apply?
2. How does total product behave with change in marginal product?
3. Briefly explain the causes of increasing returns to a factor with the help of marginal product.
4. Distinguish between total fixed cost and total variable cost.
5. Explain with the help of a diagram the relationship between Average cost, Average variable cost and Marginal cost.
6. Why is short run average cost curve 'U' shaped?
7. Explain diagrammatically the relationship between Average cost, Average variable cost and Average fixed cost.
8. What changes will take place in total revenue when
   (a) Marginal revenue is falling but is positive.

(b) Marginal revenue is zero.

(c) Marginal revenue is negative.

9. Define marginal revenue. Explain the relationship between average and marginal revenue when price is constant at all levels of output.

10. How does marginal revenue effect total revenue when price decreases to increase sale.

11. What do you mean by producers equilibrium? State the conditions of producer's equilibrium.

12. Explain producers equilibrium using marginal revenue and marginal cost approach.

13. Explain producer's equilibrium with the help of a table using total revenue and total cost approach.

14. From the given data, find out :

(a) Level of output at producer's equilibrium

(b) Break even point level of output

(c) Output level showing losses.

Output	0	1	2	3	4	5	6	7	8	9	10
TC	5	15	22	27	31	38	49	63	80	101	123
TR	0	10	20	30	40	50	60	70	80	90	10

15. Find out level of output yielding maximum profit

Output	1	2	3	4	5
AR	10	9	8	7	6
AC	10	7	6	6	7

16. Complete the following table.

Output	1	2	3	4	5
AR	10	–	8	–	–
MR	10	8	–	0	–
TR	10	–	–	–	20

17. Find out total production and marginal product

Unit of Labour	1	2	3	4	5	6
AP	2	3	4	4.25	3	3.5

18. Complete the following table

AP	0	–	–	22	–	20
MP		–	22	–	–	–
TP	0	20	–	–	88	–

19. Explain briefly law of supply with the help of diagram.

20. Define market supply. Explain its two determinants.

21. Distinguish between 'Change in Supply' and change in quantity supplied.

22. Explain briefly two causes of a rightward shift of supply curve.

23. Differentiate between contraction in supply and decrease in supply.

24. What is meant by elasticity of supply? What will be the price elasticity under following conditions

    (a) Percentage change in quantity is greater than percentage change in price.

    (b) Supply remain constant due to increase or decrease in supply.

25. A seller of potatoes sells 80 quintals a day when the price of potatoes is Rs. 4 per kg. The price elasticity of supply of potatoes is known to be 2. How much quantity of potatoes will the seller supply when the price rises to Rs. 5 per kg.

26. The coefficient of elasticity of supply of a commodity is 3. A seller supplies 20 units of this. How much quantity of this commodity will the seller supply. When price rises by Rs. 2 per unit?

27. At a price of Rs. 8 per unit the quantity supplied of a commodity is 200 units. Its price elasticity of supply is 1.5. If its price rises to Rs. 10 per unit. Calculate the quantity supplied at new price.

28. The price elasticity of supply of a commodity is 2.5. At a price of Rs. 5 per unit. Its quantity supplied is 300 units. Calculate quantity supplied at a price of Rs. 4 per unit.

H.O.T.S.

1. State the cause by which marginal product of a variable factor change from increasing return to diminishing return.

2. What would be the shape of average revenue curve when total revenue is positively stopped straight line passing through origin. Explain with the help of schedule and diagram.

3. Why any producer would like to operate in second stage even though total physical production is increasing at diminishing rate or marginal product is falling?

4. Following statements are true or false. Give reasons :

    (a) At the stage of producer's equilibrium, marginal cost will be decreasing.

    (b) AR curve always remain above MR curve.

5. Whether following statements are true or false. Give reasons.
   (a) Marginal revenue falls twice the rate at which average revenue falls.
   (b) Average cost starts increasing when rising portion of marginal cost intersects.
6. Following statements are true or false. Give reasons :
   (a) Diminishing returns to a factor is applicable only when average product starts falling.
   (b) AC and AVC curves do not intersect each other
7. Distinguish between leftward shift to supply curve and downward movement along a supply curve.
8. "The change in quantity supplied is explanation of law of supply". Explain.
9. Either following statements are true or false. Give reasons.
   (a) Supply remains constant in market period.
   (b) Future expectation to increase in price increases the market supply of a commodity.
10. Explain the geometric method of measuring price elasticity of supply with the help of diagram.

LONG ANSWER TYPE QUESTIONS (6 MARKS)

1. Explain the effect on output when only one input is increased and all other inputs are held constant.
2. Explain briefly the law underlying the change in output as the input is changed. Also identify the various stages in the change in total product.

Units of Labour input	1	2	3	4	5	6
Total output units	50	110	150	180	180	150

3. What are increasing return to a factor?
4. State whether true or false. Give reasons.
   (a) Total product is the area under the marginal product curve.
   (b) There is a range when average product is rising and marginal product is falling.
   (c) For the first unit MC = AVC.
5. State whether True or False. Give reasons.
   (a) When marginal revenue is constant and not equal to zero. Then total revenue will also be constant.
   (b) As soon as marginal cost rising, average variable cost also starts rising.
   (c) Total product always increases whether there is increasing returns or Diminishing return to a factor.

6. Distinguish between followings
   (a) Perfectly elastic and perfectly inelastic
   (b) Less than unitary elastic and greater than unitary elastic.
7. Explain followings :
   (a) Why does the slope of supply curve is positive.
   (b) Why producer decreases the supply due to fall in price.
   (c) Price elasticity of supply is numerical measurement of law of supply.

ANSWER

1 MARK QUESTIONS

1. Production function shows the functional relationship between physical input and output.
2. Marginal product is net addition to total product when one additional unit of variable factor is used.
3. Total product increases at diminishing rate.
4. MP falls but it falls at faster rate than AP
5. AP is a per unit of output of a factor.
6. These factors of production which cannot be varied in short period.
7. Change in the behaviour of a factor in the short run.
8. When marginal product of a factor is zero, then total product will be maximum.
9. When total product falls, marginal product becomes zero.
10. Cost is the sum of explicit and implicit cost.
11. These monetary payments by producer on factor and non factor payments is called explicit cost.
12. Total fixed cost.
13. Implicit cost is the cost of self owned resources of producer.
14. Marginal cost is the net addition to total cost when one additional unit of output is produced.
15. It is because average fixed cost goes on falling with increase in output.
16. Revenue is the amount received from sale of output.
17. Marginal revenue falls twice the rate of average revenue.
18. Average revenue remains constant.

19. Marginal revenue is net additions to total revenue by sale of one additional unit of output.

20. Total revenue will be maximum.

21. Because AFC can never be zero at any level of output.

22. Producer's equilibrium is a situation where he gets maximum profit.

23. 1. MR = MC

    2. Rising portion of Marginal cost curve intersects marginal revenue curve.

24. Normal profit is a situation where total cost of a firm is equal to total cost.

25. At the point where TR = TC.

26. Supply refers to the amount of the commodity that a firm or seller is willing to offer for sale in a given period of time at various prices.

27. Individual supply schedule is a tabular form showing various quantities of a commodity which a firm is ready to sell at different prices during a given period of time.

28. A very short period in which no adjustment can take place in supply in response to a change in demand/price.

29. Supply function state the functional relation between supply of a commodity and determinants of supply.

30. 1. Number of firms

    2. Change in technology

31. Change in supply refers to increase or decrease in supply of a commodity due to change in factors other than price like technology, price of inputs, Goal of producer, Number of firms etc.

32. Due to decrease in price.

33. As a result of increase in take rates production cost increase, so the profit margin of producer will fall and producer will decrease the supply.

34. Decrease in price.

35. Due to change in other factors the supply of a commodity falls at same price than supply curve shifted to leftward.

36. As a result of decrease in price of input producer cost falls than producers profit margin will increase so producer will increase the supply of commodity.

37. Because of positive relation between price and supply.

38. Price Elasticity of Supply (E_s) is a measure of degree of response of supply for a good to change in its price.

39. Perfectly elastic.

40. When percentage change in price is equal to percentage change in supply.

41. Due to change in other factor like improvement in technology, decrease in price of inputs.

42. Law of supply states that other things remaining constant, quantity supplied of a commodity increases with increase in the price and decreases with a fall in its price.

43. (i) Score goods

    (ii) Market period

44. Increase in price of a commodity.

45. Contraction in supply.

46. $$Es = \frac{\text{\% change in quantity}}{\text{\% change in price}} = \frac{20\%}{10\%} = 2$$

H.O.T.S.

1. Total cost is the sum of total fixed cost and total variable cost. TFC remains constant at all levels of output.

2. AFC can be calculated from TFC.

3. TFC remains constant at all levels of output.

4. When per unit price falls by selling an additional unit of a good.

5. Per unit price remains constant.

6. The flatter supply curve is more elastic at the point of intersection as compared to the steeper curve.

7. Law of supply reflects the direction of change in supply where as price elasticity of supply measures the magnitude of change in supply.

8. Inelastic.

9. Profit margin of firm (producer).

10. Equal to unity elastic.

11. When the supply of commodity increases due to change in other factors.

12. The profit margin of producer increases due to increase in supply therefore producer increases the supply when price increases.

13. The supply curve will shift to the left side.

H.O.T.S. ANSWERS

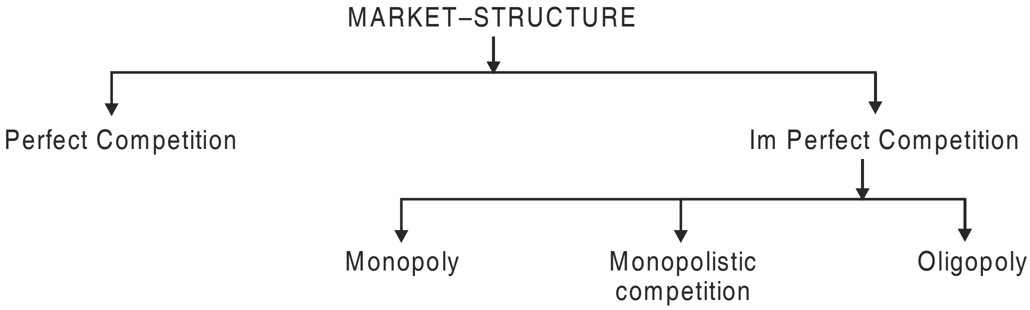
1. Total cost is the sum of total fixed cost and total variable cost. TFC remains constant at all levels of output.
2. AFC can be calculated from TFC.
3. TFC remain constant at all levels of output.
4. When per unit price falls by selling an additional unit of a good.
5. Per unit price remains constant.
6. The flatter supply curve is more elastic at the point of intersection as compared to the steeper curve.
7. Law of supply reflects the directions of change in supply whereas price elasticity of supply measures the magnitude of change in supply.
8. In elastic.
9. Profit margin of firm (producer) fall due to decrease in price therefore producer moves downward along a supply curve.
10. Equal to unity elastic.
11. When the supply of commodity increases due to change in other factors.
12. The profit margin of producer increases due to increase in supply therefore producer increases the supply when price increases.
13. The supply curve will shift to the left side.

UNIT 4

FORMS OF MARKET AND PRICE DETERMINATION

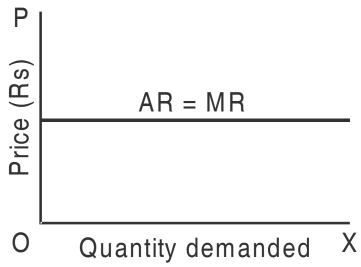
POINTS TO REMEMBER

- Market implies a system with the help of which the buyers and seller of a commodity or service come to contact with each other and complete the act of sale and purchase.



- Perfect competition is that type of market in which there are very large number of sellers, sell homogenous goods at constant price without any competition to consumer who have perfect knowledge about the market.

- Under perfect competition, price remains constant therefore, average and marginal revenue curves also remain constant and parallel to ox-axis.



- Under perfect competition price is determined by an industry (a group of producers and consumers) with the forces of demand and supply. No individual firm or buyer can influence the price or supply of the product. So industry is price maker and firm is price taker.

MONOPOLY MARKET

- Monopoly is that type of market where there is a single seller, selling a product which does not have close substitutes.

- Under monopoly, due to absence of free entry and exit, firm earn abnormal profit in the long run.
- Under monopoly, monopolist himself determines price of the product according to the elasticity of demand as he has full control over the supply of the product.
- Under monopoly elasticity of demand for the good is less than one therefore demand curve has steeper slope. (Ed < 1).
- Under monopoly, average revenue and marginal revenue has negative slope as per unit price falls with increase in output sold.

MONOPOLISTIC COMPETITION

- Monopolistic competition is that type of market in which there are large number of firms, sell differentiated product to the consumers who have imperfect knowledge about the product and there is tough competition between firms.
- Under monopolistic competition due to lack of control over supply each firm determines the price of their product, keeping in view the price level set by other firms.
- Under monopolistic competition elasticity of demand for the product is greater than one therefore demand curve (AR curve) has flatter slope.

OLIGOPOLY

- Oligopoly is the form of market in which there are few sellers. All the firms produce a certain amount of output of total market supply.
- All the firms under oligopoly produce homogenous or differentiated product.
- Under oligopoly there is difficult entry of firms.
- Under oligopoly demand curve is undefined.
- All the firms are interdependent in respect of price determination under oligopoly market.
- On the basis of production, oligopoly can be categorised in two categories.
  - (i) Pure oligopoly in which firms produce homogenous product.
  - (ii) Differentiated oligopoly in which firms produce similar product which are close substitutes of each other.

FORMS OF MARKET STRUCTURE

Perfect Competition

- Very large No. of buyers and sellers
- Homogeneous product
- Free entry and exit of firm
- Perfect knowledge
- Perfect mobility
- AR (demand) curve parallel to X-axis
- No control over price
- Absence of transport cost

Imperfect Competition (Non-competitive Markets)

Monopoly

- Single firm (seller
- No substitute Product
- Very difficult entry of firm
- Price discrimination
- AR curve downward sloping
- Great control over price (e.g. Posts and Telegraphs)

Monopolistic Competition

- Large No. of firms
- Differentiated product
- Free entry and exit
- Selling cost
- AR curve downward sloping
- Some control over price (e.g., firms manufacturing tooth pastes)

Oligopoly

- A few firm
- Homogeneous and differentiated products
- Difficult entry of new firms
- Selling costs
- AR, curves are downward sloping
- Price rigidity
- Indeterminate demand curve (e.g. firms mfg. cars, steel, cement, etc.)

VERY SHORT ANSWER TYPE QUESTIONS (1 MARK)

1. What are main forms of market?
2. What do you mean by homogenous product?
3. How is price determined under perfect competition?
4. Name the three forms of imperfectly competitive market.
5. What is the common feature shared by perfect and monopolistic competition?
6. If the firms are earning abnormal profits, how will the number of firms in the industry change?
7. Define the monopoly market.
8. Under which market there is no difference between firm and industry?
9. What is normal profit?
10. What are patent rights?
11. What is cartel?
12. What is the relationship between AR curve and demand curve in a monopoly market?

13. What do you mean by price discrimination?
14. Under which market price discrimination is possible?
15. Give two examples of monopolistically competitive market.
16. What are selling costs?
17. What is the relationship between price and MC in a monopolistic competitive market?
18. Define oligopoly?
19. Define equilibrium price.
20. When does the situation of excess supply arise?
21. What will be the impact of decrease in supply on the equilibrium when demand is perfectly elastic?
22. What will be the effect on equilibrium price when increase in demand is more than increase in supply?
23. What do you understand by Support price?
24. What do you understand by control price?
25. Under what situation does the equilibrium price remains unaffected when there is simultaneous increase in demand and supply.

H.O.T.S.

26. What is the relation between average revenue curve and demand curve under monopolistic competition.
27. Under which competitive market can firm earn abnormal profits in the long run?
28. How is the success of price discrimination policy depends on elasticity of demand?
29. Why does the marginal revenue curve has negative slope under monopoly?
30. Why is the price line for a competitive firm horizontal?

SHORT ANSWER TYPE QUESTIONS (3-4 MARKS)

1. Explain any three features of monopoly.
2. How is the demand curve under monopolistic competition different from demand curve of a firm under perfect competition?
3. Why is a firm under perfect competition a price taker? Explain.
4. Explain three features of perfect competition.
5. Explain perfect competition, monopoly and monopolistic competition on the basis of following.
   (i) Elasticity of demand

(ii) Average revenue curve

6. What will happen if the price prevailing in the market is above the equilibrium price.
7. Distinguish between monopoly and oligopoly.
8. Explain the concept of excess demand with the help of diagram.
9. Differentiate between 'Collusive and non-collusive oligopoly.
10. Explain the determination of equilibrium price under perfect competition with the help of schedule.

H.O.T.S.

11. What is the profit maximising condition for perfect competition, monopoly and monopolistic competition?
12. MR = AR in perfect competition but MR < AR in monopoly and monopolistic competition why?
13. How does decrease in demand can not change the price of commodity?
14. Why there are entry barriers in oligopoly?
15. In which competition the availability of close substitutes is present? How does it effect the price?

LONG ANSWER TYPE QUESTIONS (6 MARKS)

1. Explain the characteristics of monopolistic competition.
2. Explain the following features of perfect competition.
   (i) Large number of firms or Sellers and Buyers
   (ii) Homogeneous Product.
3. Explain features of Oligopoly.
4. What will be the effect on equilibrium price due to change in supply if
   (i) demand is perfectly inelastic
   (ii) demand is perfectly elastic
5. Explain equilibrium price. How is it determined?
6. Explain how change in price of a substitute commodity would affect market equilibrium of the commodity X.

H.O.T.S.

7. How are equilibrium price and quantity affected when demand and supply curve move in opposite direction?

8. There is simultaneous change in demand and supply of a commodity and equilibrium price will increase. Explain with the help of diagram.

9. There is simultaneous decrease in demand and supply of a commodity, when it result in

   (i) no change in equilibrium price

   (ii) a fall in equilibrium price.

ANSWERS

1 MARK QUESTIONS

1. Main forms of market are (i) Perfect competition (ii) Monopoly, (iii) Monopolistic competition (iv) Oligopoly.

2. It means product produced by different firms is identical in all respect like quality, colour, size, weight etc. such products are perfect substitutes.

3. Price is determined by an industry by the forces of demand and supply.

4. (i) Monopoly (ii) Monopolistic (iii) Oligopoly

5. (i) Free entry and exit of firms

   (ii) Perfect mobility of factors.

6. The number of firms in the industry will increase.

7. It is a market in which there is a single seller, selling a product which does not have close substitutes.

8. Perfect competition.

9. It is the minimum profit which a firm must get to stay in business.

10. Patent right is an exclusive right (licence) granted to a company or an individual to produce a particular product or to use a particular technology for claiming to be discover of the particular product or technology.

11. A cartel is a group of firms which jointly set 'output and price' policy of its product in such a way so as to reap benefits of monopoly.

12. Both AR curve and demand curve are the same in a monopoly market.

13. Price discrimination is a policy under which a seller sells a similar product at different prices to different buyers.

14. Monopoly Market.

15. Toothpaste and shoes are examples.

16. Selling costs are the expenses which a firm incurs for promoting sale of its product.

17. Price is more than MC. P > MC.

18. Oligopoly is a market structure where there are few firms competing for their homogenous or differentiated products.

19. It is the price at which demand = supply.

20. When market price is more than equilibrium price.

21. Equilibrium price will remain unchanged.

22. When increase in demand is more than increase in supply, equilibrium price will increase.

23. When government fixes the price of a product higher than the equilibrium price to help the producers, it is called support price.

24. When government fixes price of a product lower than the equilibrium price to help the consumers, it is called control price.

25. When increasing demand is equal to increase in supply the equilibrium price will remain same.

H.O.T.S.

26. Both AR and MR curves have negative slope.

27. Monopoly market.

28. Monopolist will sell the good at higher price to the consumer for whom elasticity of demand of a good is inelastic, where as he will sell the good at lower price to the consumer for whom elasticity of demand of a good is elastic.

29. Under monopoly AR and MR curves have negative slope because more can be sold by lowering the price.

30. Because per unit price of a good is constant and firms can sell infinite quantity at given price.

HINTS

3-4 MARKS QUESTIONS

11. Profit maximising condition for perfect competition P = MR = MC.

    Monopoly MR = MC

    Monopoly competition P > MC = MC

14. In oligopoly there are some few big firms controlling the market by mutual understanding and they try that no other firm can enter the market.

6 MARKS QUESTIONS

4. (i) Due to increase in supply equilibrium price will low and due to decrease in supply equilibrium price will high if demand is perfectly elastic.

   (ii) equilibrium price will remain same.

6. Increase in the price of the substitute commodity (y) would cause increase in demand for X, implying a forward shift in demand curve for X conversely, decrease in the price of y would cause backward shift in demand curve for X.

7. Increase in demand and decrease in supply, equilibrium price will rise and if decrease in demand and increase in supply equilibrium price will low.

UNIT 5

SIMPLE APPLICATION OF TOOLS OF DEMAND AND SUPPLY CURVE

POINTS TO REMEMBER

- With the help of curves, these variables can be studied, which represent positive or negative relation.
- Variables are of two types (i) dependent variables (ii) independent variables.
- Generally independent variables are represented on OY-axis, where as dependent variables are represented on OX-axis.
- While plotting curves, value on OX-axis or OY-axis should be according to reasonable proportion.
- Relationship between variables can be understood easily through curves because their effect is long lasting on our minds.
- In Economics demand and supply curves are used to express following :
  1. Data relating to demand and supply.
  2. To determine equilibrium in various economic activities.
  3. To show the effect of change in demand and supply on equilibrium and market price.
  4. For graphic representation of different categories of elasticity of demand and supply.
  5. Determination of floor price and price ceiling in situation of excess demand and excess supply.
- Govt. determines maximum and minimum price ceiling with the help of demand and supply.
- Govt. determines tax rate in accordance with elasticity of demand and supply.
- Demand and supply curve explain equilibrium under following situations :
  1. Rate of interest (Demand for money and supply for money)
  2. Wage rate
  3. Price determination of factors of production.
  4. Determination of foreign exchange rate.
  5. Determination of tax.
  6. Saving of consumer.

UNIT 6

NATIONAL INCOME

POINTS TO REMEMBER

- **Good :** In economics a good is defined as any physical object, natural or man-made, or service rendered, that could command a price in the market.
- **Consumption Goods :** Those final goods which are purchased or self produced for satisfaction of wants by ultimate consumer.
- **Capital Goods :** Those final goods which help in production. These goods are used for generating income.
- **Final Goods :** are those goods which are used either for final consumption or for investment.
- **Intermediate Goods :** refers to those goods and services which are used for further production or for resale in the same year. These goods do not fulfil needs of mankind directly.
- **Investment :** Addition made to the stock of capital during a period is called investment. It is also called capital formation.
- **Depreciation :** is expected fall in value of fixed capital goods due to normal wear and tear and obsolescence.
- **Gross Investment :** Total addition of capital goods to the existing stock of capital during a time period.
- **Net Investment :** is a measure of net availability of new capital or new addition to capital stock in an economy.

  Net Investment = Gross investment – Depreciation.
- **Stocks :** Variables whose magnitude is measured at a particular point of time are called stock variables.
- **Flows :** Variables whose magnitude is measured over a period of time are called flow variable.
- **Economic Territory :** Economic (or domestic) is the geographical territory administrated by a Government within which persons, goods, and capital circulate freely.
- **Scope of Economic Territory :**

  (a) Political frontiers including territorial waters and airspace.

  (b) Embassies, consulates, military bases etc. located abroad.

(c) Ships and aircrafts operated by the residents between two or more countries.

(d) Fishing vessels, oil and natural gas rigs operated by residents in the international waters.

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

NATIONAL INCOME AGGREGATES

Domestic Aggregates

- **Gross domestic product at Market price (GDP_{MP})** is the market value of all the final goods and services produced by all producing units located in the domestic territory of a country during a period of one year.
- **Net Domestic product at Market Price (NDP_{MP}) :** $NDP_{MP} = GDP_{MP}$ – Depreciation (consumption of Fixed capital)
- **Domestic Income : (NDP_{FC}) :** It is the factor income accuring to owners of factors of production for suppling factor services with in domestic territory during an accounting year.

NATIONAL AGGREGATES

- **Gross National Product at Market Price (GNP_{MP})** is the market value of all the final goods and services produced by all producing units (in the domestic territory and abroad) of a country during a period of one year.
  $GDP_{MP} + NFIA = GNP_{MP}$
- **National Income (NNP_{FC}) :** is a measure of factor earnings of the residents of a country both from economic (Domestic) territory and from abroad during an accounting year.

$$NNP_{FC} = NDP_{FC} + NFIA = \text{National Income.}$$

- **National Income at Current Prices :** It is the money value of all final goods and services valued at current prices produced by normal residents of a country over a particular period of time.
- **National Income at Constant Prices :** It is also called as real income. It is the money value of all final goods and services valued at constant prices produced by normal residents of a country.
- **Value of Output :** Market value of all goods and services produced by an enterprise during an accounting year.
- **Value added :** It is the difference between value of output of a firm and value of inputs bought from the other firms during a particular period of time.
- **Double Counting :** Counting the value of a commodity more than once while estimating national income is called double counting.
- Ways to solve the problem of double counting.

(a) By taking the value of only final goods.

(b) By taking value added.

National Income (NNP_{FC})

Production Method

Net value added at factor cost

Net value added by Primary sector
+
Net value added by secondary sector
+
Net value added by Tertiary sector
+
Net factor income from abroad.

Income Method

Sum of total factor Payments

Compensation of employees
+
Rent + Interest
+
profit
+
mixed income
+
Net factor income from abroad

Expenditure Method

Sum of total final expenditure

Private final consumption expenditure
+
Govt. consumption expenditure
+
Gross domestic capital formation
+
Net exports
–
Net Indirect taxes
–
Depreciation
+
Net factor income from abroad.

- **National Disposable Income (NDI) :** It is defined as net national product at Market price (NNP_{MP}) plus net current transfer from rest of the world.

  NDI = NNP_{MP} + Net current transfers from rest of the world.

  = National income + net indirect tax + net current transfers from the rest of the world.

- Gross National Disposable Income (Gross NDI)

  = GNP_{MP} + Net current Transfers from rest of the world.

- Net National Disposable Income (Net NDI)

  = NNP_{MP} + Net current Transfers from rest of the world.

  = Gross NDI – Depreciation.

- **Concept of Value Added of One Sector or One Firm**

  1. Value output = Sales + Net Stock.
  2. Gross Value added at market prices (GVA_{MP}) = Value of output – Intermediate consumption
  3. Net value added at market price (NVA_{MP}) = GVA_{MP} – Depreciation.

4. Net value added at factor cost (NVA_{FC}) = NVA_{MP} – Net indirect tax.

- **Note :** By adding up NVA_{FC} of all the sectors, we get NDP_{FC} or Domestic Income.

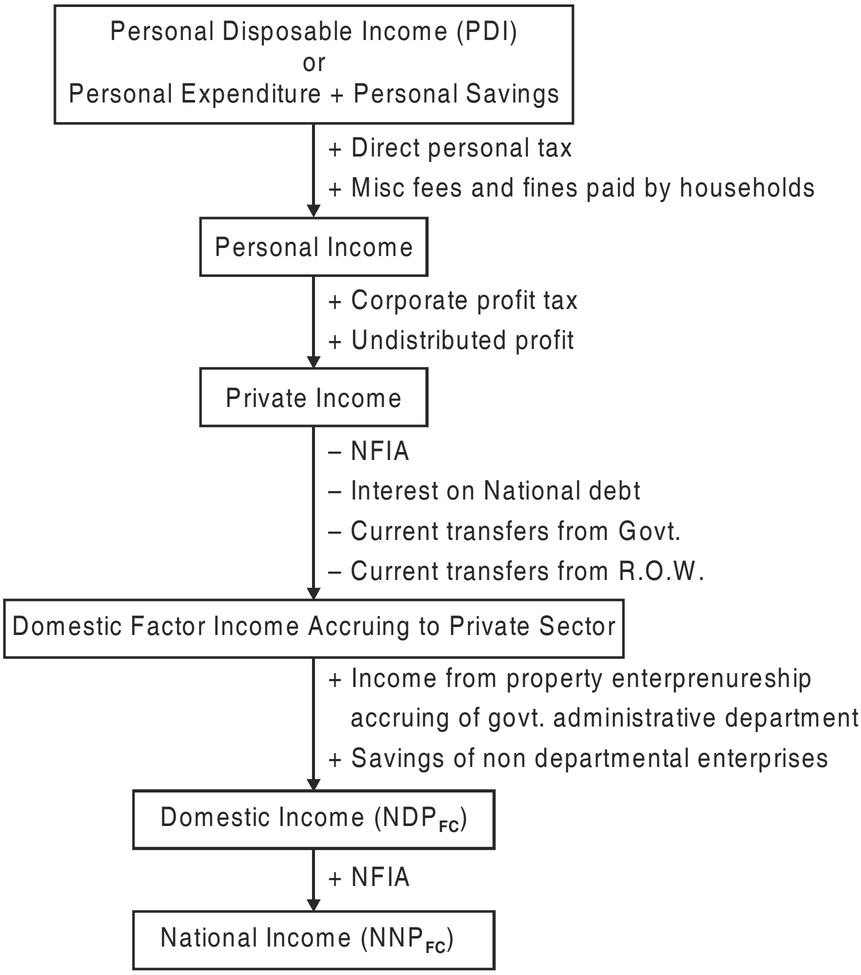
Components of Final Expenditure (GDP_{MP})

- Final Consumption Expenditure
  - Private final Consumption expenditure + Govt. final consumption expenditure
- Gross Domestic Capital formation
  - Gross Domestic fixed capital formation + Change in stocks (Closing stock– Opening stock)
- Net exports of goods and services
  - Exports (–) Imports

Components of NDP_{FC} (Income Method)

- Compensation of Employees
- Rent + Interest + Profit
- Mixed Income of Self employed

- **Private Income :** Private income is the total of factor incomes and transfer incomes from all sources by private sector within and outside the country.
- **Personal Income :** Personal Income is the sum of earned income and transfer income received by persons (house holds) from all sources within and outside the country.
- **Personal Disposable Income :** It is that part of Personal income which is available to the households for disposal as they like.



- Personal Disposable Income (PDI) from Domestic Income (NDP_{FC})

Domestic Income (NDP_{FC})

+ NFIA

National Income (NNP_{FC})

– Income from property enterprenureship accruing of govt. administrative department
– Savings of non departmental enterprises
– NFIA

Domestic Factor Income Accruing to Private Sector

+ NFIA
+ Interest on National debt
+ Current transfers from Govt.
+ Current transfers from R.O.W.

Private Income

– Corporate profit tax
– Undistributed profit

Personal Income

– Direct personal tax
– Misc fees and fines paid by households

Personal Disposable Income (PDI)
OR
Personal Expenditure + Personal Savings

VERY SHORT ANSWER TYPE QUESTIONS (1 MARK)

1. What do you mean by net export?
2. Define current transfers.
3. Who is considered as normal resident of a country.
4. What do you mean by economic territory?
5. When will be NDP_{MP} be less than NDP_{FC}?
6. State the meaning of consumption of fixed capital?
7. State the meaning of injection in income flow, with the help of an example.
8. What do you mean by leakage in income flow?

9. State wheather the following are stock or flow :
   (a) Income of the household
   (b) Consumption expenditure of household
10. Define 'Nominal GNP'
11. What do you mean by 'Real GNP'?

H.O.T.S.

12. Which of the two NVA_{FC} and NVA_{MP} is equal to sum of factor income.
13. Why is money received from sale of shares is not included in domestic factor income.
14. What aggregate do we get, when we add up the net value added of all producing sectors of an economy?
15. How value added method solve the problem of double counting?
16. What is per capita real GDP.
17. Complete the following aggregates.
   (i) National Income = Domestic income ....
   (ii) Personal Income = Private income ....
   (iii) Net value added at FC = Gross output ....

SHORT ANSWER TYPE QUESTIONS (3 MARKS)

1. Distinguish between real and nominal gross domestic product.
2. Explain the basis of classifying goods into intermediate and final goods. Give suitable examples.
3. Distinguish between consumer goods and capital goods. Which of these are final goods?
4. Explain how distribution of G.D.P. is its limitation as a measure of economic welfare.
5. Explain the meaning of "Domestic Territory of a country".
6. Distinguish between 'factor income' and 'transfer income'.
7. Classify the following into stock and flow :
   (i) Population of India
   (ii) Exports
   (iii) Investment
   (iv) Expenditure on food by household.

(v) National Capital

(vi) Deposits in saving account of bank.

8. Explain circular flow of income in two sector model economy.

9. What do you mean by Economic welfare? Can welfare be promoted by increase in national income?

10. Giving reasons, classify the following into intermediate and final goods :

    (i) Machines purchased by a dealer of machines.

    (ii) A car purchased by a house hold.

11. Distinguish between stock and flows. Give an example of each.

12. What is meant by a normal resident? State which of the followings are treated as normal resident of India.

    (i) An American working in the office of WHO located in India.

    (ii) Indian working in U.S.A. embassy located in India.

13. Which of the following is factor income from abroad for an Indian resident and why?

    (a) Interest income received by Indian resident on the bonds of companies operating in USA.

    (b) Remittances by Indians settled abroad to their families in India.

H.O.T.S.

14. Explain why subsidies are added to and indirect taxes deducted from domestic product at market price to arrive at domestic product at factor cost.

15. Giving reasons, explain how are the following treated in estimating national Income by the income method.

    (a) Interest on a car loan paid by an individual

    (b) Interest on a car loan paid by a Govt. owned company.

16. Why do we include the imputed value of goods but not services while estimating production for self consumption?

17. Define operating surplus, write its components.

18. Distinguish between domestic product and national product. When can domestic product be more than National Product.

LONG ANSWER QUESTIONS (6 MARKS)

1. How will you treat the following while estimating national income of India.

    (a) Dividend received by an Indian from his investment in shares of a foreign company.

(b) Money received by a family in India from relatives working abroad.

(c) Interest received on loan given to a friend for purchasing a car.

2. How will you treat the following while estimating national income of India? Give reason for your answer?

   (a) Dividend received by a foreigner from investment in shares of an Indian Company.

   (b) Money received by a family in India from relatives working abroad.

   (c) Interest received on loan given to a Friend for purchasing a car.

3. Explain the problem of double counting in estimating national income, with the help of an example. Also explain two alternative ways of avoiding the problem.

4. Distinguish between real gross domestic product and nominal gross domestic product. Can gross domestic product be used as an index of welfare of the people? Give two reasons.

5. How will you treat the following in estimating national income of India? Give reasons for your answer.

   (a) Value of bonus shares received by share holders of a company.

   (b) Fees received from students.

   (c) Interest received on loan given to a foreign company in India.

6. Explain the steps of measuring national income by income method.

7. Explain value added method of estimating National Income with the help of suitable example.

8. Giving reasons, categories following into transfer payment or factor payments.

   (a) financial help gives to flood victims

   (b) Old age pension.

   (c) Imputed rent.

9. Calculate private income :

		Rs. (Crore)
(i)	National interest	10
(ii)	Personal disposable income	150
(iii)	Corporate Profit Tax	25
(iv)	Personal Taxes	50
(v)	Retained earnings of private corporations	05

[Ans. : Rs. 230 Crores**]**

10. Giving reasons explain wheather the following are included in domestic product of India.

    (i) Profit earned by a branch of foreign bank in India.

(ii) Payment of salaries to its staff by an embassy located in New Delhi.

(iii) Interest received by an Indian resident from firms abroad.

11. How will you treat the following while estimating national income. Give reasons for your answer.

(i) Capital gain on sale of house.

(ii) Prize won is lottery.

(iii) Interest on public debt.

12. While estimating national income. How will you treat the following. Give reason for your answer.

(i) Imputed rent of occupied house.

(ii) Interest received on debentures.

(iii) Financial help received by Flood victims.

NUMERICALS FOR PRACTICE

1. From the following data, calculate national income by (a) Income method (b) expd. method.

		Rs. (Crore)
(i)	Interest	150
(ii)	Rent	250
(iii)	Govt. Final Consumption Expd.	600
(iv)	Pvt. Final Consumption Expd.	1200
(v)	Profits.	640
(vi)	Compensation of employees	1000
(vii)	NFIA	30
(viii)	Net Exports	(–) 40
(ix)	Net Indirect tax	60
(x)	Consumption of Fixed capital	50
(xi)	Net domestic capital formation	340

[**Ans. :** Rs. 2070 Crore]

2. From the following data calculate GNP at FC by (a) Income method (b) Expenditure method.

		Rs. (Crore)
(i)	Net domestic capital formation	500
(ii)	Compensation of employees	1850
(iii)	Consumption of fixed capital	100
(iv)	Govt. final consumption expenditure	1100

(v)	PVT. final consumption expenditure	2600
(vi)	Rent	400
(vii)	Dividend	200
(viii)	Interest	500
(ix)	Net Exports	(—) 100
(x)	Profits	1100
(xi)	NFIA	(–) 50
(xi)	Net Indirect taxes	250

[**Ans. :** Rs. 3900 Crore]

3. There are only two producing sectors A and B in an economy. Calculate :

   (a) Gross value added at market price by each sector

   (b) National income.

		Rs. (Crore)
(i)	Net factor income from Abroad.	20
(ii)	Sales by A	1000
(iii)	Sales by B	2000
(iv)	Change in stock of B	(–) 200
(v)	Closing stock of A	50
(vi)	Opening stock of A	100
(vii)	Consumption of fixed capital by A and B	180
(viii)	Indirect taxes paid by A and B	120
(ix)	Purchase of raw material by A	500
(x)	Purchase of raw material by B	600
(xi)	Exports by B	70

[**Ans. :** Rs. 1370 Crore]

4. From the following data, calculate

   (a) Gross Domestic Product at Factor Cost (GDP_{FC}) and

   (b) Factor income to abroad.

		Rs. (Crore)
(i)	Gross Domestic Capital formation	600
(ii)	Interest	200
(iii)	Gross national product at market price	2800
(iv)	Rent	300
(v)	Compensation of employees	1600
(vi)	Profit	400

(vii)	Dividents	150
(viii)	Factor income from abroad.	50
(ix)	Change in stock	100
(x)	Net indirect taxes	240
(xi)	Net fixed capital formation	400
(xii)	Net Export	(–) 30

[**Ans. :** (a) GDP_{FC} = 2600 Crores (b) FIPA = 90 Crores]

5. Calculate net national product at factor cost and gross national disposable income from the following :

		Rs. (Crores)
(i)	Net current transfers to Row	10
(ii)	Savings of non-departmental enterprises	60
(iii)	Net indirect tax.	90
(iv)	Income from property and entrepreneurship to the Govt. administrative departments	80
(v)	Consumption of fixed capital	70
(vi)	Personal Tax	100
(vii)	Corporation tax	40
(viii)	National debt interest	30
(ix)	Current transfer payments by Govt.	50
(x)	Retained Earnings of PVT. Corporate	10
(xi)	Personal disposable income.	1100

[**Ans. :** (a) NNP_{FC} = Rs. 1320 Crores (b) GNDI = 1470 Crores]

6. Calculate (a) Gross domestic product at market price (GDP_{MP}) (b) Factor income from abroad.

		Rs. Crores
(i)	Profit	500
(ii)	Export	40
(iii)	Compensation of Employees	1500
(iv)	Net current transfer from Row	2800
(v)	Rent	90
(vi)	Interest	300
(vii)	Factor income to abroad	400
(viii)	Net indirect tax	120
(ix)	Gross fixed capital formation	250
(x)	Net domestic capital formation	650
(xi)	Gross fixed capital formation	700
(xii)	Change in stock	50

[**Ans. :** GDP_{MP} = 3050 Crores (b) FIRA = 120 Crores]

7. From the following data calculate (a) GDP_{MP} and (b) Factor income from abroad.

		Rs. (Crores)
(i)	Gross national product at factor cost	6150
(ii)	Net export	(–) 50
(iii)	Compensation of Employees	3000
(iv)	Rent	800
(v)	Interest	900
(vi)	Profit	1300
(vii)	Net Indirect tax	300
(viii)	Net domestic capital formation	800
(ix)	Gross fixed capital formation	850
(x)	Change in stock	50
(xi)	Dividend	300
(xi)	Factor income to abroad.	80

[**Ans. :** GDP_{MP} = 6400 Crores; FIFA = 130 Crores]

8. Calculate 'Net National Disposable Income' and 'Personal Income' from the following data.

		Rs. (Crores)
(i)	Personal tax	212
(ii)	Net national product at factor cost	2500
(iii)	Net indirect tax	180
(iv)	Domestic product accuring to Govt.	500
(v)	Retained earnings of PVT. Corporations	80
(vi)	NFIA	23
(vii)	National debt interest	100
(viii)	Net current transfer from abroad	20
(ix)	Corporation tax	70
(x)	Current transfer from Government	30

[**Ans. :** NNDI = 2700 Crore; P.I. = 2000 Crore]

9. Calculate National Income by the (a) Expenditure method and (b) Production method from the following data

		Rs. (Crore)
(i)	Gross value added at market price by the primary sector	300
(ii)	PVT. final consumption expd.	750
(iii)	Consumption of Fixed capital	150
(iv)	Net Indirect Taxes	120
(v)	Gross value added at market price by the secondary sector	200

(vi)	Net domestic fixed capital formation	200
(vii)	Change in stock	(–) 20
(viii)	Gross value added at market price by the tertiary sector	700
(ix)	Net imports	50
(x)	Govt. final consumption expd.	150
(xi)	Net factor income from abroad.	20

[**Ans. :** 950 Crores]

10. From the following data show that net value added at factor cost (NVA_{FC}) is equal to the sum of factor incomes.

		Rs. (Crore)
(i)	Purchase of raw material and other input from the domestic market	600
(ii)	Increase in stock	200
(iii)	Domestic sales	1800
(iv)	Import of raw material	100
(v)	Exports	200
(vi)	Depreciation of fixed capital	75
(vii)	Salaries and wages	600
(viii)	Interest payments	450
(ix)	Rent	75
(x)	Dividents	150
(xi)	Undistributed profits.	80
(xi)	Corporate profit tax	20
(xii)	Indirect tax	50

[**Ans. :** 1375 Crores]

11. From the following data calculate (a) Private income (b) Personal income (c) Personal disposable income.

		Rs. (Crore)
(i)	Income from property and entrepreneurship accuring to the Govt. administrative Dept.	100
(ii)	Saving of non-departmental enterprises	80
(iii)	Factor income from NDP occurring to Private sector	500
(iv)	Corporation tax	30
(v)	Saving of Pvt. corporate sector	65
(vi)	Direct taxes paid by house hold	20
(vii)	Current transfers from Govt. Administrative departments	10
(viii)	Current transfer from Row	20
(ix)	Factor income from abroad	5
(x)	Operating surplus	150
(xi)	Factor income to abroad	15

[**Ans. :** (a) 520 Crore (b) 425 Crore (c) 405 Crore]

ANSWERS

MARK QUESTIONS

1. Net Export means the difference between export and imports.

   Net export = Export – Imports

2. Current transfers are those transfers which are paid from current income and are added in current income of recipient.

3. Normal resident of a country is that person or institution whose centre of economic interest lies in that country.

4. Economic territory means that geographical territory administrated by a Govt. within which persons, goods and capital circulates freely.

5. When subsidies are more than indirect taxes.

6. It decreases in the value of fixed capital due to normal wear and tear and foreseen obsolescence.

7. 'Injection' is that economic concept, which add to flow of income and goods e.g., investment, Exports.

8. "Leakage" is that economic concept, which has negative impact on flow of income.

9. (i) Flow (ii) Stock

10. It is the gross money value of National Product of current year valued at current prices.

11. It is the gross money value of National product of current year valued at base year price.

12. NVA_{FC}

13. It is the financial transaction and does not have any impact on production.

14. NDP**.**

15. By deducting intermediate consumption from value of output, the problem of double counting can be solved.

16. When per capita income is measured from real GDP (measured at constant price) is called per capita real GDP.

17. (i) National income = Domestic income + Net factor income from Abroad.

    (ii) Personal income = Private income – Corporate tax – Undistributed profit.

    (iii) Net value added at FC = Gross output – Intermediate Consumption
    – depreciation – Net Indirect tax

HINTS

3-4 MARKS QUESTIONS

7. (a) Stock (b) Flow

   (c) Flow (d) Stock

   (e) Stock (f) Stock

10. (a) Intermediate good because it is for resale

    (b) final good because purchased by ultimate consumer.

15. (a) Not include as paid for consumption expd.

    (b) Included as paid for production expd.

NUMERICAL QUESTIONS (6 MARKS)

1. National Income by Income Method

   = (i) + (ii) + (v) + (vi) + (vii)

   = 150 + 250 + 640 + 1000 + 30

   = 2070

   By Expd. method :

   = (iii) + (iv) – (viii) + (xi) + (vii) – (ix)

   = 600 + 1200 – 40 + 340 + 30 – 60

   = 2070

2. GNP_{FC}

   (a) Income Method :

   = (ii) + (vi) + (viii) + (x) + (xi)

   NNP_{FC} = 1850 + 400 + 500 + 1100 + (– 50)

   = 3800

   GNP_{FC} = 3800 + 100 = 3900 Crores

   (b) Expd. Method = (i) + (iii) + (iv) + (v) + (ix) + (xi) – (xii)

   500 + 100 + 1100 + 2600 + (– 100) + (– 50) – 250

   = 3900 Crore

3. GVA_{MP} of Sector A

$$1000 - 50 - 500 = 450$$

GVA_{MP} of Sector B

$$2000 - 200 - 600 = 1200$$

Total $\quad 450 + 1200 = 1650$

$NNP_{FC} = 1650 - 150 - 120 + 20 = 1370$ Crores

4. GDP_{FC} :

$$NDP_{FC} = (v) + (ii) + (iv) + (vi)$$
$$= 1600 + 200 + 300 + 400$$
$$= 2500$$
$$GDP_{FC} = NDP_{FC} + CFC$$
$$CFC = GDCF - NDCF\ (NFCF + \Delta S)$$
$$= 600 - (400 + 100) = 100$$
$$GDP_{FC} = 2500 + 100 = 2600 \text{ Crore.}$$

FIPA

$$GNP_{MP} = GDP_{FC} + NFIA + NIT$$
$$2800 = 2600 + NFIA + 240$$
$$NFIA = -40$$
$$NFIA = FIFA - FIPA$$
$$-40 = 50 - FIPA$$
$$FIPA = 50 + 40 = 90 \text{ Crores}$$

5. $NNP_{FC} = (xi) + (vi) + (vii) + (x) - (viii) - (ix) + (i) + (ii) + (iv)$

$$= 1100 + 100 + 40 + 10 - 30 - 50 + 10 + 60 + 80$$
$$= 1320 \text{ Crores}$$
$$GNDI = NNP_{FC} + (iii) + (v) - (i)$$
$$= 1320 + 90 + 70 - 10$$
$$= 1470 \text{ Crores}$$

6. (a) GDP_{MP} :

$$NDP_{FC} = (iii) + (v) + (vi) + (vii)$$

$= 1500 + 500 + 300 + 400$

$= 2700$ Crores

$GDP_{MP} = NDP_{FC} + CFC + NIT$

$CFC = (GFCF + \Delta S) - 650$

$= (700 + 50) - 650$

$= 100$

$NIT = 250$

$GDP_{MP} = 2700 + 100 + 250$

$= 3050$

(b) FIFA

$GNP_{FC} = GDP_{MP} + NFIA - NIT$

$2800 = 3050 + NFIA - 250$

$NFIA = 0$

$NFIA = FIFA - FIPA$

$0 = FIFA - 120$

$FIFA = 120$ Crores

7. GDP_{MP} :

$NDP_{FC} = (iii) + (iv) + (v) + (vi)$

$= 3000 + 800 + 900 + 1300 = 6000$

$GDP_{MP} = NDP_{FC} + CFC + NIT$

$CFC = GDCF - NDCF$

$= (GFCF + \Delta s) - NDCF$

$= (850 + 50) - 800$

$= 100$

$NIT = 300$

$GDP_{MP} = 6000 + 100 + 300 = 6400$ Crores

FIFA :

$GNP_{FC} = GDP_{MP} + NFIA - NIT$

$6150 = 6400 + NFIA - 300$

NFIA = 50

NFIA = FIFA – FIPA

50 = FIFA – 80

FIFA = 130

8. NNDI = (ii) + (iii) + (viii)

= 2500+ 180 + 20

= 2700

Pr. I = (ii) – (iv) + (vii) + (viii) + (x) – (ix) – (v)

= 2500 – 500 + 100 + 20 + 30 – 70 – 80

= 2000 Crores

9. N.I.

Expd. Method

= (ii) + (x) + (vi) + (vii) – (ix) + (xi) – (iv)

= 750 + 150 + 220 + (– 20) – 50 + 20 – 120

= 950 Crores

N.I. By production method

= (i) + (v) + (viii) – (iii) – (iv) + (xi)

= 300 + 200 + 700 – 150 – 120 + 20

= 950 Crores

10. NVA_{FC} = (ii) + (iii) + (v) – (i) – (iv) – (vi) – (xiii)

= 200 +1800 + 200 – 600 – 100 – 75 – 50

= 1375 Crores

Sum of factor income = (vii) + (viii) + (ix) + (x) + (xi) + (xii)

= 600 + 450 + 75 + 150 + 80 + 20

= 1375

11. (a) PVT Income – Rs. 520 Crore

(b) P.I. – Rs. 425 Crore

(c) P.D.I. = Rs. 405 Crore

UNIT 7

MONEY AND BANKING

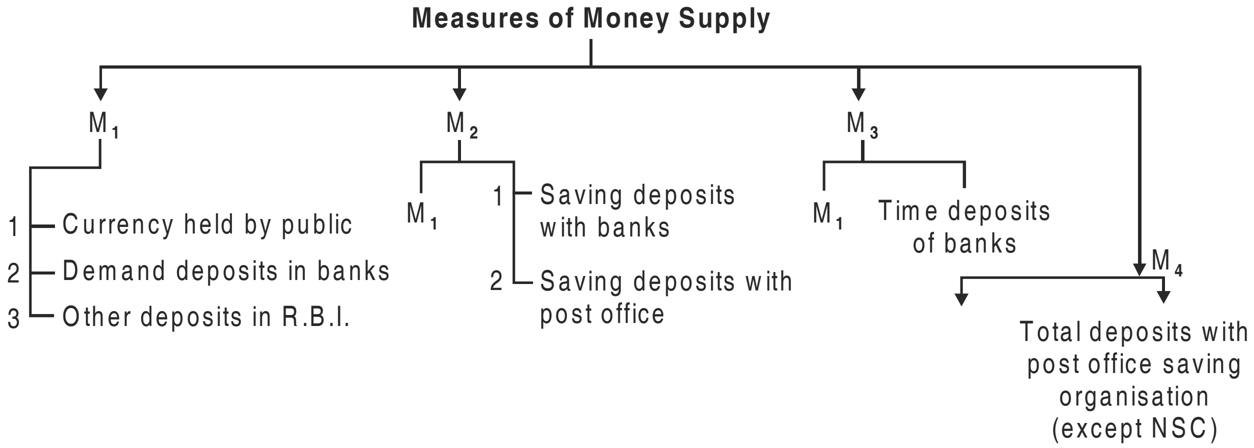
POINTS TO REMEMBER

- **Money :** Money may be defined as anything which is generally acceptable as a medium of exchange and does the function of 'unit of account' and measures of value.
- **Barter Exchange :** It is a system of exchange in which transactions are made by exchange of goods. It was in practice before the invention of money.
- **Difficulties involved in the Barter Exchange**
  1. Absence of a common unit.
  2. The lack of double coincidence of wants
  3. Lacks of any satisfactory units to engage in contracts involving future payments.
  4. Does not provide for any method of storing generalised purchasing power.
- **Supply of Money :** Total stock of money
- **Sources of Money Supply :** (i) Government (which issues one rupee notes and all other coins) (ii) RBI (which issue currency) and (iii) Commercial Banks (which create credit on the basis of demand deposits)
- **Commercial Banks :** Commercial Banks is a financial institution who accepts deposits from the general public and gives loans for investment.

  Central Banks : The central Bank is the apex institution of monetary and banking system of country.

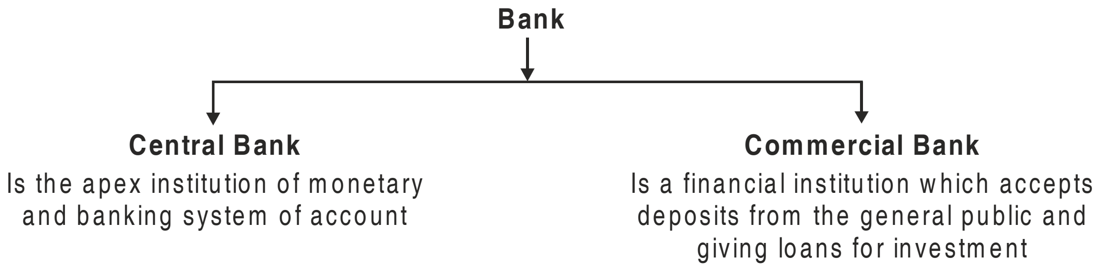
Functions of Money

- Primary Functions
  - Medium of exchange
  - Measure of value
- Secondary Functions
  - Standard of Deferred Payment
  - Store of value



Factors Affecting Money Supply

1. Monetary policy of Central Bank
2. Fiscal policy of Govt.
3. Capacity of Credit creation
4. Policy of commercial banks



FUNCTIONS OF BANKS

1. Currency Authority
2. Banker to Govt.
3. Banker's Bank and Supervisor.
4. Lender of Last resort
5. Custodian of foreign exchange.
6. Controller of money supply and credit.

CREDIT CREATION BY COMMERCIAL BANKS

Credit creation means that strength of commercial banks by which they expand the primary deposite (demand deposite) in secondary deposite. Expansion of secondary deposits is called credit creation.

Commercial Banks Create Credit by

1. lending money
2. Investment in securities.

VERY SHORT ANSWER TYPE QUESTIONS (1 MARK)

1. Define money.
2. What do you know about barter exchange system?
3. What is meant by the term money supply?
4. Write any two draw backs of barter exchange system
5. What is overdraft facility?
6. State two primary functions of money.
7. What is meant by credit creation?
8. What is rationing of credit?
9. What is credit multiplier?
10. What is meant by a cheque?
11. Write two functions of central banks.
12. What is cash reserve ratio (CRR)?
13. What is statutory liquidity ratio (SLR)?
14. What is demand deposits by banks?
15. State two components of credit control by central bank.
16. What are various money stock measures?
17. What is banking?
18. What is meant by liquidity?
19. What is meant by credit money?
20. For what objectives the demand for money desired?
21. What is liquidity trap?

H.O.T.S.

22. Write any two factors affecting money supply.
23. What is marginal requirement of loan.

24. What is meant by speculation?

25. What monetary system does India follow?

SHORT ANSWER TYPE QUESTIONS (3-4 MARKS)

1. What is barter system? Explain any two problems faced in barter system?
2. State three points of difference between central bank and Commercial bank.
3. Explain the function of money as 'Unit of value'.
4. How does money solve the problem of double coincidence of wants?
5. Explain ' Store of value' function of money.
6. What are open market operations? What is their effect on availability of credit?
7. Explain the 'lender of last resort' function of central bank.
8. Distinguish between SLR and CRR.
9. Write difference between M_1 and M_4 measures of money supply.
10. State the role of central Bank as a banker of the Government.
11. State any four functions of money.
12. Explain the 'Standard of deffered payment'.
13. How central bank is controller of credit?
14. Explain different measures of money supply adopted by R.B.I. in India.
15. Write three qualities of Good Money.

H.O.T.S.

16. What is meant by statutory liquidity ratio (SLR). State the effect of rise in rate of SLR on creation of credit.
17. Explain 'currency authority' and 'controller of credit' functions of central bank.
18. Explain effect of increase in bank rate on credit creation by commercial banks.
19. Distinguish between over draft facility and loan.
20. What is relationship between speculative demand for money and rate of interest?

LONG ANSWER TYPE QUESTIONS (6 MARKS)

1. Define a Central Bank. What are the functions of Central Bank?

2. Explain any four functions of money.

3. What is meant by money supply? How does RBI classify the supply of money?

ANSWERS

1 MARK QUESTIONS

1. Any thing which is generally acceptable by the people as medium of exchange, and also performs the function of 'store of value' measure of money.

2. It is the system of exchange in which transactions are made by exchange of goods.

3. Total stock of money which are held by the public at a particular point of time in an Economy.

4. (i) Lack of double coincidence of wants.

   (ii) Difficulty in measurement of value.

5. It is a facility to a (customer) depositer for overdawing the amount more than the balance amount in his account.

6. 1. Medium of Exchange

   2. Measure of value

7. Credit creation means power to expand demand deposits of Commercial Banks.

8. Rationing of credit is a system under which central bank of country fixes the maximum limit of credit creation by commercial bank for creation purposes.

9. Credit multiplier measures, number of times deposits are multiplied as credit.

$$\text{Credit multiplier} = \frac{1}{\text{CRR}}$$

10. A cheque is an instrument that instructs the bank to transfer funds from cheque issuer's account to the receiver of the cheque.

11. (i) Currency Authority

    (ii) Controller of money and credit

12. Commercial Banks are required under law to keep a certain percentage of their total deposite in the central banks in the form of cash reserves. This is called CRR.

13. Every Commercial Bank is required to keep a fixed percentage (ratio) of its assets in cash, called SLR.

14. Demand deposits are deposits which can be withdrawn from bank at any time by the account holder.

15. (i) Bank Rate policy.

(ii) Open market operation

16. Following four measures of money stock are used.

    M1 = C + DD + OD

    M2 = M1 + Saving deposite in Post Office Saving banks.

    M3 = M1 + Net time deposite of banks

    M4 = M3 + Total deposits with post office saving organisation (except NSC).

17. Banking is defined as accepting for purpose of lending or investment of deposits of money from the public repayable on demand or otherwise and withdrawable by cheque, draft etc.

18. Any thing which can be used as a medium of exchange at any time. Coins and paper notes possess 100% liquidity.

19. Credit money refers to money whose face value is greater than the commodity value of material from which the money is made.

20. (i) Transaction demand for money

    (ii) speculative demand for money

21. It is a situation of very low rate of interest where people are ready to hold whatever stock of money is supplied expecting interest rate to rise in future and bond prices to fall.

HOTS

22. (i) Monetary policy of Central Banks

    (ii) Credit creation capacity and policy of Commercial Banks

23. Marginal requirement of loan means the difference in percentage between the amount of the loan and market value of the security offered by the borrower against the loan.

24. Speculation means future changes in interest rate and bond prices.

25. India, at present, follows a 'managed paper currency standard.'

HINTS

3-4 MARKS QUESTIONS

9. M1 being the most liquid and M4 being the least liquid. M1 is treated as measures of narrow money and M4 measures of broad money.

13. Quantitative measures and qualitative measures of monetary policy.

16. Increase in SLR reduces credit availability.

20. Speculative demand for money is inversely related to rate of interest.

UNIT 8

DETERMINATIONS OF INCOME & EMPLOYMENT

POINTS TO REMEMBER

- Aggregate demand refers to total demand for goods and services in the economy. AD represents the total expenditure on goods and services in an economy.
- Main components of Aggregate demand are :
  (i) Household consumption expenditure (C).
  (ii) Investment expenditure (I).
  (iii) Govt. consumption expenditure (G).
  (iv) Net export (X – M).

  In two sector economy AD = C + I.
- Aggregate supply is the total supply of goods and services in the economy. It is also the value of total output available is an economy during a given period of time.

  AS = C + S
- Aggregate supply represents the national income of the country.

  AS = Y (National Income)
- Consumption function shows functional relationship between consumption and Income.

  C = F(Y)

  where C = Consumption

  Y = National Income

  F = Functional relationship.
- Consumption function (propensity to consume) is of two types.
  (a) Average propensity to consume (APC)
  (b) Marginal propensity to consume (MPC)
- **Average propensity to Consume (APC) :** Average propensity to consume refers to the ratio of consumption expenditure to the corresponding level of income.

$$APC = \frac{Consumption(C)}{Income(Y)}$$

Important Points about APC

(i) **APC is more than 1 :** as long as consumption is more than national income before the break-even point, APC > 1.

(ii) **APC = 1,** at the break-even point, consumption is equal to national income.

(iii) **APC is less than 1 :** beyond the break-even point. Consumption is less than national income.

(iv) APC falls with increase in income.

(v) **APC can never be zero :** because even at zero level of national income, there is autonomous consumption.

- **Marginal Propensity to Consume (MPC) :** Marginal propensity to consume refers to the ratio of change in consumption expenditure to change in total income.

$$MPC = \frac{\text{Change in consumption } \Delta C}{\text{Change in Income } \Delta Y}$$

Important Points about MPC

(1) **Value of MPC varies between O and 1 :** If the entire additional income is consumed, then $\Delta C = \Delta Y$, making MPC = 1. However, if entire additional income is saved, than $\Delta C = 0$, making MPC = 0

(2) **MPC of poor is more than that of rich :** As poor people spend a greater percentage of their income on consumption, whereas rich people spend a smaller percentage on consumption.

- Saving function refers to the functional relationship between saving and national income.

S = f (y)

where S = saving

Y = National Income

F = Functional relationship.

- Saving function (Propensity to Save) is of two types.

    (i) Average Propensity to Save (APS)

    (ii) Marginal propensity to Save (MPS)

- **Average Propensity to Save (APS) :** Average propensity to save refers to the ratio of savings to the corresponding level of income.

$$APS = \frac{Savings(S)}{Income(Y)}$$

- **Important Point about APS**

  (1) **APS can never be 1 or more than 1 :** As saving can never be equal to or more than income.

  (2) **APS can be zero :** At break even point C = Y, hence S = 0

  (3) **APS can be negative or less than 1 :** At income levels which are lower than the break-even point, APS can be negative as there will be dissavings in the economy.

  (4) APS rises with increase in income.

- **Marginal Propensity to Save (MPS) :** Marginal propensity to save refers to the ratio of change in savings to change in total income.

$$\text{MPS} = \frac{\text{Change in Savings } (\Delta S)}{\text{Change in Income } (\Delta Y)}$$

- **MPS varies between 0 and 1**

  (i) MPS = 1 if the entire additional income is saved. In such a case, $\Delta S = \Delta Y$.

  (ii) MPS = 0 If the entire additional income is consumed. In such a case, $\Delta S = 0$

- **Relationship between APC and APS**

  The sum of APC and APS is equal to one. It can be proved as under we know :

  Y = C + S

  Dividing both sides by Y, we get

$$\frac{Y}{Y} = \frac{C}{Y} = \frac{S}{Y}$$

$$1 = \text{APC} + \text{APS} \qquad \begin{bmatrix} \because \text{APC} = \dfrac{C}{Y} \\ \text{APS} = \dfrac{S}{Y} \end{bmatrix}$$

  APC + APS = 1

  because income is either used for consumption or for saving.

- **Relationship between MPC and MPS**

  The sum of MPC and MPS is equal to one. It can be proved as under :

  We know

  Y = C + S

  Dividing both sides by ΔY, we get

$$\frac{\Delta Y}{\Delta Y} = \frac{\Delta C}{\Delta Y} + \frac{\Delta S}{\Delta Y}$$

$$1 = MPC + MPS \qquad \left[\because \frac{\Delta C}{\Delta Y} = MPC, \frac{\Delta S}{\Delta Y} = MPS\right]$$

MPC + MPS = 1 because total increment in income is either used for consumption or for saving.

- Investment refers to the expenditure incurred on creation of new capital assets.
- The investment expenditure is classified under two heads :
  - (i) Induced investment
  - (ii) Autonomous investment.
- **Induced Investment :** Induced investment refers to the investment which depends on the profit expectations and is directly influenced by income level.
- **Autonomous Investment :** Autonomous investment refers to the investment which is not affected by changes in the Level of income and is not induced solely by profit motive.
- **Marginal Efficiency of Investment (MEI) :** MEI refers to the expected rate of return from an additional investment.
- **Ex-Ante Savings :** Ex-ante saving refers to amount of savings which household intended to save at different levels of income in the economy.
- **Ex-Ante Investment :** Ex-ante investments refers to amount of investment which firm plan to invest at different level of income in the economy.
- **Ex-Post Saving :** Ex-post savings refer to the actual or realised savings in an economy during a year.
- **Ex-post Investment :** Ex-post investment refers to the actual or realised investment in an economy during a year.
- Equilibrium level of income is determined only at the point where AD = AS or S = I. But it can be at full employment level as it can be at less than full employment.
- Full employment is a situation when all those who are able and willing to work at prevailing wage rate, get the opportunity to work or no one is unemployed.
- Voluntary unemployment is a situation where person is able to work but not willing to work at prevailing wage rate.
- Involuntary unemployment is a situation where worker is able to willing to work at current wage rate but does not get work.
- Under employment is a situation where AD < AS at full employment level.
- Investment multiplier (K) is the ratio of increase in income (ΔY) due to change in investment ΔI.

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

$$K = \frac{1}{1 - MPC} \quad \text{or} \quad K = \frac{1}{MPS}$$

- Excess demand refers to the situations when aggregate demand is in excess of aggregate supply corresponding to full employment.
- Deficient demand refers to a situation when aggregate demand is short of aggregate supply corresponding to full employment.
- Inflationary gap is the gap by which actual aggregate demand exceeds the level of aggregate demand required to establish full employment. It measures the amount of excess of aggregate demand.
- Deflationary gap is the gap by which actual aggregate supply is less than the level of aggregate demand required to establish full employment. It measures the amount of deficiency of aggregate demand.
- Fiscal policy is the policy of public revenue and expenditure of the Govt.
- Monetary policy is the central bank's policy of money supply and availability of credit or credit control policy.

1 MARK QUESTIONS

1. Define aggregate demand.
2. Define aggregate supply.
3. What determines the level of household consumption demand in an economy?
4. What is meant by average propensity to consume?
5. Define marginal propensity to consume.
6. What is autonomous consumption?
7. What do you mean by break even point?
8. Can the value of APC be greater than one?
9. Can APC be ever zero?
10. What is the relationship between APC and APS?
11. If APS is 0.6, how much will be the APC?
12. What is meant by effective demand?
13. If MPC and MPS are equal, what is the value of the multiplier?
14. What can be the minimum value of investment multiplier?
15. What can be the maximum value of multiplier?
16. Can average propensity to consume be negative?
17. What do you mean by investment multiplier?

18. What will be the impact of increase in cash reserve ratio on the aggregate demand?

19. What is investment?

20. Why can the value of marginal propensity to consume not be greater than one?

H.O.T.S.

21. What is the impact of deficient demand on production and employment?

22. What does inflationary gap measure?

23. Under which situation is consumption function represented by a straight line.

24. What is the impact of continuous increase in income on average propensity to consume?

25. How much additional income will be generated in an economy with additional investment of Rs. 100 crore, when MPC = 1/2?

26. What does MPC refer to in a diagram showing consumption function or consumption line?

SHORT ANSWER TYPE QUESTIONS (3-4 MARKS)

1. Define aggregate demand. State its components.

2. Distinguish between average propensity to consume and marginal propensity to consume with the help of numerical examples.

3. Savings and investment are always equal discuss.

4. What is meant by investment multiplier? Explain the relationship between MPC and K?

5. State briefly the effect of excess demand on output, employment and price.

6. Explain the concept of inflationary gap with the help of a diagram?

7. Explain the situation of deficient demand in an economy with the help of a diagram.

8. State briefly any three measures to control excess demand in an economy.

9. What is monetary policy? Explain the role of (i) Bank rate and (ii) Margin requirements in influencing the availability of credit in an economy.

10. Give the meaning of excess demand? Explain any two fiscal measures to current excess demand.

11. What is fiscal policy? What possible fiscal measures can be taken with respect to deficient demand in an economy?

12. What do you mean by full employment equilibrium? Explain with the help of diagram.

13. Explain with the help of diagram the concept of under-employment equilibrium.

14. Distinguish between induced investment and autonomous investment?

15. Explain the concept of consumption function?

16. Briefly explain the relationship between MPC and MPS.

17. What is the impact of excess demand on production, employment and price level? Show it with the help of diagram.

18. In an economy investment expenditure is increased by Rs. 400 crore and MPC is 0.8. Calculate the total increase in income and savings.

19. In an economy investment expenditure is increased by Rs. 700 crore. The marginal propensity to consume is 0.9. Calculate the total increase in income and consumption expenditure.

20. Complete the following table :

Level of Income	***Consumption Expenditure (Rs.)***	***MPC***	***MPS***
400	240	–	–
500	320	–	–
600	395	–	–
700	465	–	–

21. Given marginal propensity to save equal to 0.25, what will be the increase in national income if investment increases by Rs. 125 crore. Calculate.

22. Find out equilibrium level of income, when S = –40 + 0.25 Y and investment is Rs. 60.

23. Can an economy be is equilibrium when there is unemployment in the economy? Explain.

24. How does change in bank rate controls the situations of excess and deficient demand?

25. Briefly explain with the help of diagram the relationship between savings and income?

H.O.T.S.

26. Does an excess of AD over AS always imply a situation of inflationary gap? Explain.

27. What happens if AD > AS prior to the full employment level of output?

28. Find saving function when consumption function is given as :

    C = 100 + .64.

29. In a two sector economy, the saving function is given as :

    S = –10 + 0.2Y

    and investment function is expressed as

    I = –3 + 0.1Y.

    Calculate the equilibrium level of income?

30. Which of the following can have the value of more than one and less than zero.

(i) APC; (ii) APS; (iii) MPC and (iv) MPS ?

LONG ANSWER TYPE QUESTIONS (6 MARKS)

1. Why must aggregate demand be equal to aggregate supply at the equilibrium level of income and output? Explain with the help of a diagram?
2. Explain the equilibrium level of income with the help of saving and investment curves. If saving exceed planned investment, what changes will bring about the equality between them?
3. Explain the working of multiplier with the help of a numerical example.
4. When planned investment is more than planned savings, what will be its impact on income and employment. Explain with the help of diagram.
5. What do you mean by Fiscal Policy? How it helps in controlling excess demand?
6. Can there be equilibrium in case of underemployment. Explain with the help of a diagram?
7. How quantitative and qualitative instruments of Govt. monetary policy controls deficient demand?
8. Distinguish between inflationary gap and deflationary gap. Show deflationary gap on a diagram. Can this gap exist at equilibrium level of income? Explain.
9. In an economy $S = -50 + 0.5Y$ is the saving function (where S = saving and Y = national income) and investment expenditure is 7000. Calculate.
    (i) Equilibrium level of national income
    (ii) Consumption expenditure at equilibrium level of national income.
10. $C = 100 + 0.75y$ is a consumption function where C = consumption expenditure and Y = national income and investment expenditure is 800. On the basis of this information calculate.
    (i) equilibrium level of national income.
    (ii) Saving at equilibrium level of national income.
11. Given below is the consumption function in an economy.

    $C = 100 + 0.5Y$

    with the help of a numerical example show that in this economy, as income increase APC will decrease.

HOTS (6 MARKS QUESTIONS)

12. Draw on a diagram a straight line saving line curve for an economy. From it derive the consumption curve, explaining the method of derivation. Show a point on the consumption curve at which APC is equal to 1.
13. How increase in investment will effect income level of an economy? Explain with the help of an example and diagram.

14. Briefly explain the concept of under employment equilibrium with the help of diagram. How increase in investment helps in achieving, full employment equilibrium?

15. What is 'deficient demand' in macroeconomics? Explain the role of open market operations in correcting it.

ANSWERS

1 MARK QUESTIONS

1. Aggregate demand refers to total demand for goods + services in an economy, measured in terms of total expenditure.

2. Aggregate supply is the money value of the final goods and services or national product produced in an economy during one year.

3. Level of disposable income.

4. Average propensity to consume is the ratios of consumption expenditure to income.

$$APS = \frac{C}{Y}$$

5. Marginal propensity to consume is the ratio of change in consumption to change in income.

$$APC = \frac{\Delta C}{\Delta Y}$$

6. Autonomous consumption refers to minimum level of consumption, even when income is zero.

7. Break even point refers to the point at which consumption is equal to income.

$$C = Y; \quad S = 0.$$

8. Yes, the value of APC > 1 before the break-even point is attained.

9. APC can never be equal to zero as consumption can never be zero at any level of income.

10. The sum of APC and APS is equal to one.

$$APC + APS = 1$$

11. $APC = 1 - APS = 1 - 0.6 = 0.4$

12. Effective demand refers to that level of aggregate demand which is equal to aggregate supply.

13. We know that

$$MPS + MPC = 1$$

$$MPS + MPC = 1 \qquad \because MPS = MPC$$

$$MPS = \frac{1}{2} \qquad\qquad K = \frac{1}{MPS}$$

$$K = 2$$

14. The minimum value of K = 1, when MPC = O
15. The maximum value of k = ∞ when MPC = 1
16. Yes when consumption is more than income.
17. Investment multiplier measures the impact of change in investment on income.
18. Aggregate demand will fall.
19. Investment is an addition to capital stock. It is also called capital formation.
20. It is because change in consumption cannot be greater than change in income.
21. Production and employment will decrease due to shortage of aggregate demand.
22. It measures the quantum of excess demand.
23. When marginal propensity to consume remains constant.
24. APC falls with continuous increase in income.
25. $$K = \frac{1}{1 - MPC} = \frac{1}{1 - \frac{1}{2}} = \frac{1}{0.5} = 2$$

    and $\Delta Y = K \,.\, \Delta I$

    = 2 x 100

    = 200 Crore.
26. In diagram showing consumption function or consumption line, MPC refers to the slope of consumption line.

HINTS

3-4 MARKS QUESTIONS

18. (i) 200 Crore,

    (ii) 400 Crore
19. (i) ΔI = 7000 Crore.

    (ii) ΔC = 6300 Crore.

20. MPC = –, 0.8, 0.75, 0.70

MPS = –, 0.2, 0.25, 0.30

21. K = 4

$\Delta Y = 4 \times 125$

$= 500$ Crore.

22. Rs. 400

29. Rs. 70

30. (i) APC can be more than 1 when C > Y.

(ii) APS can be less than zero.

(iii) MPC and

(iv) MPS cannot be more than 1 or less than zero.

6 MARKS QUESTIONS

9. (i) National income (Y) = 14100

(ii) Consumption expenditure (C) = 7100

10. (i) Equilibrium National Income (Y) = 3600

(ii) Saving = 800

UNIT 9

GOVERNMENT BUDGET AND THE ECONOMY

POINTS TO REMEMBER

- Budget is a financial statement showing the expected receipt and expenditure of Govt. for the coming fiscal or financial year. In India, fiscal year is from 1st April to 31st March.
- Main objectives of budget are :
  - (i) Reallocation of resources.
  - (ii) Redistributuion of income and wealth
  - (iii) Economic stability
  - (iv) Management of public enterprises.
- There are two components of budget :
  - (a) Revenue budget
  - (b) Capital budget
- Revenue Budget consists of revenue receipts of Govt. and expenditure met from such revenue.
- Capital budget consists of capital receipts and capital expenditure.

BUDGET RECEIPTS

- Revenue Receipts
  - Tax
    - Direct
    - Indirect
  - Non-Tax
    - Commercial Revenue
    - Interest
    - Divident + Profits
    - External Grants
    - Administrative Revenues
    - Fee
    - Licence Fee
    - Fines + Penalties
- Capital Receipts
  - Borrowing and other liabilities
  - Recovery of Loans
  - Other receipts (Dis-investments)

- **Revenue Receipts :**
  - (i) Neither creates liabilities for Govt.
  - (ii) Nor causes any reduction in assets.
- **Capital receipts :**
  - (i) It creates liabilities or
  - (ii) It reduces assets.

BUDGET EXPENDITURE

Revenue Expenditure | Capital Expenditure

- **Revenue Expenditure :**
  - (i) Neither creates assets
  - (ii) Nor reduces liabilities
- **Capital Expenditure :**
  - (i) It creates assets
  - (ii) It reduces liabilities.
- **Revenue Deficit :** Total revenue expenditure > Total revenue receipts
- Revenue deficit when total revenue expenditure excess total revenue receipts.
- **Implications of Revenue Deficit are :**
  - (i) It leads to repayment burden in future without investment.
  - (ii) It shows wasteful expenditures of Govt. on administration.
  - (iii) It increase the burden of taxes.
- **Fiscal Deficit :** Total expenditures > Total Receipts excluding borrowing.

  Fiscal deficit : When total expenditure exceeds total receipts excluding borrowing.
- **Implications of Fiscal Deficits are :**
  - (i) It leads to inflationary pressure.
  - (ii) A country has to face debt trap.
  - (iii) It reduces future growth + development.
- **Primary Deficit :** Fiscal deficit – Interest payments.

Primary Deficit : By deducting Interest payment from fiscal deficit we get primary deficit.

- **Budgetary Deficit :** Total Expenditure > Total Receipts.

  Budgetary Deficit : Total expenditure exceeds total receipts.

VERY SHORT ANSWER TYPE QUESTIONS (1 MARK)

1. What does a fiscal policy relate to?
2. Define Budget.
3. Define a tax.
4. What do you mean by direct tax?
5. What do you mean by indirect tax?
6. What are revenue receipts?
7. What are capital receipts?
8. Give two examples of non-tax revenue receipts.
9. What are the two sources of capital receipts?
10. Define revenue deficit.
11. Define fiscal deficit.
12. Why is repayment of loan a capital expenditure?
13. Why is recovery of loan treated a capital receipt?
14. What is a balanced budget.
15. Define capital expenditure.
16. In a Govt. Budget primary deficit is Rs. 25,000 Cr. and interest payments are Rs. 15,000 Cr. How much is the fiscal deficit?

H.O.T.S.

17. What are Budget Receipts?
18. In a Govt. Budget, revenue deficit is Rs. 8,00,000 Cr. and borrowings are Rs. 50,000 Cr. How much is the fiscal deficit?
19. What is disinvestment?
20. What does zero primary deficit mean?
21. Can a huge budgetary deficit cause bankruptcy of the government?
22. What is meant by monetary expansion?

SHORT ANSWER TYPE QUESTIONS (3-4 MARKS)

1. What are the objectives of a budget?
2. What is the difference between revenue budget and capital budget?
3. What is meant by revenue receipts? Explain the components of revenue receipts of the Govt.
4. Distinguish between direct tax and indirect tax.
5. What do you mean by capital receipts? What are the main components of the capital receipts?
6. Give the meaning of revenue deficit and fiscal deficit. What problems can the fiscal deficit create?
7. What is fiscal deficit? What are its implications?
8. Distinguish between revenue expenditure and capital expenditure with an example of each.
9. How can a govt. budget help in reducing inequalities of income. Explain.
10. What do you mean by monetary expansion.

HOTS (3-4 MARKS)

11. Is deficit budget a sign of Govt. inefficiency? Explain.
12. Are fiscal deficits necessarily inflationary? Give reasons in support of your view.
13. Discuss the issue of deficit reduction.
14. How can surplus budget be used during inflation.
15. Giving reasons, classify the following as direct and indirect taxes.
    (i) Entertainment tax
    (ii) Corporation tax
    (iii) Excise tax
    (iv) Capital gains tax.

LONG ANSWER TYPE QUESTIONS (6 MARKS)

1. How can the deficit in the budget be financed? Explain.
2. Distinguish between primary deficits and fiscal deficit what are the implications of primary deficit?
3. Distinguish between Balanced and Unbalanced Budget. Is balanced budget an achievement of the Govt.
4. Identify the following as revenue receipts and capital receipts. Give reasons.
    (i) Loan from the world Bank.

(ii) Grants received from the World Bank

(iii) Sale of shares held by Govt. in a PSU.

(iv) Foreign aid against earthquake victims.

(v) Borrowing from public.

(vi) Profits of public sectors undertaking.

5. Identify the following as revenue expenditure and capital expenditure. Give reasons.

   (i) Purchase of a railway coach from Japan.

   (ii) Grants given by central Govt. to state Govt.

   (iii) Pension paid to retired Govt. employees.

   (iv) Interest paid on National Debt.

   (v) Repayment of Loan taken from World Bank.

   (vi) Expenditure on construction of metro.

ANSWERS

1 MARK QUESTIONS

1. Fiscal policy relates to revenue and expenditure of the Govt.
2. Budget is a financial statement showing the expected receipts and expenditure of the Govt. for coming fiscal year.
3. A tax is the compulsory payments against which monetary benefit cannot be expected.
4. Direct tax is the tax which is borne and paid by the same person.
5. Indirect tax is the tax for which liability to pay is on one person but paid by other person.
6. Revenue receipts are those receipts which neither creates liabilities for Govt. nor cause any reduction in assets.
7. Capital receipts are those receipts which either creates a liability or leads to reduction in assets.
8. Interest, Fee.
9. Borrowings, Recovery of loans.
10. When total revenue expenditure exceeds total revenue receipts.
11. When total expenditure exceeds total receipts excluding borrowing.
12. As it leads to reduction in liability.

13. As it leads to reduction in assets.

14. Balanced budget is that when estimated receipts are equal to estimated expenditure.

15. Capital expenditure is that which creates assets and which reduces liabilities.

16. Fiscal Deficit = Primary Deficit + Interest Payment

= 25,000 + 15,000

= 40,000 Crore.

17. Estimated money receipt received by the Govt. from different sources in fiscal year are called budgetary receipts.

18. Rs. 50,000 Crore.

19. Disinvestment refers to withdrawal of existing investment.

20. Zero deficit means that interest commitment on earlier loans have compelled the Govt. to borrow.

21. No, the govt. never goes bankrupt, no matter how large are its liabilities.

22. Monetary expansion means printing money to the extent of deficit.

HINTS

3-4 MARKS QUESTIONS

15. (i) Indirect tax

(ii) Direct tax

(iii) Indirect tax

(iv) Direct tax

6 MARKS QUESTIONS

4. (i) Capital receipts (ii) Revenue receipts

(iii) Capital receipts (iv) Revenue receipts

(v) Capital receipts (vi) Revenue receipts

5. (i) Capital Expenditure (ii) Revenue Expenditure

(iii) Revenue Expenditure (iv) Revenue Expenditure

(v) Capital Expenditure (vi) Capital Expenditure

UNIT 10

BALANCE OF PAYMENT

POINTS TO REMEMBER

- The balance of payment is annual record of the transaction in goods, services and assets between residents of a country with the rest of the world.

ACCOUNTS OF BALANCE OF PAYMENTS

Current Account

The current account records exports and imports of goods and services and unilateral transfers.

Capital Account

The Capital account records all international purchases and sale of assets such as money-stocks. bond etc.

- ***Components of Current Account***
  1. Visible items (import and export of goods)
  2. Invisible items (import and export of services.)
  3. Unilateral transfers.

Components of Capital Account

1. Foreign Direct investment.
2. Loans
3. Portfolio investment.
4. Banking capital transactions.

- The components of current account do not cause a change in assets or Liabilities status of the residents of a country or its Government.
- The components of capital accounts cause in change in assets or Liability status of the residents and the Government of a country.
- Balance of trade is the net difference of Import and export of all visible items between the normal residents of a country and rest of the world.
- Autonomous items are those items of balance of payment which are related to such transaction as are determined by the motive of profit maximisation and not to maintain equilibrium in balance of payments. These items are generally called 'Above the Line items' in balance of payment.

- Accommodating item refers to transactions that take place because of other activity in Balance of Payment. Then transactions are meant to restore the Balance of Payment identity. These items are generally called 'Below the Line items'.
- Foreign exchange rate refers to the rate at which one unit of currency of a country can be exchanged for the number of units of currency of another country.

SYSTEM OF EXCHANGE RATE

Fixed exchange rate | Flexible exchange rate.

- The epitome of the fixed exchange rate system was the gold standard in which each participant country committed itself to convert freely its currency into gold at a Fixed Price.
- **Merit of Fixed Exchange Rate**
  - (i) Stability in exchange rate
  - (ii) Promotes capital movement and international trade.
  - (iii) No scope for speculation.
- Demerits of fixed exchange rate
  - (i) Need to hold foreign exchange reserves.
  - (ii) No automatic adjustment in the 'Balance of payments.'
  - (iii) Enhance dependence on external sources.
- In a system of flexible exchange rate (also known as floating exchange rates), the exchange rate is determined by the forces of market demand and supply of foreign exchange.
- The demand of foreign exchange have inverse relation with flexible exchange rate. If flexible exchange rate rise the demand of foreign exchange falls. Vice versa.
- Sources of Demand for Foreign Exchange :
  - (a) To purchase goods and services from the rest of world.
  - (b) To purchase financial assets (*i.e.,* to invest in bonds and equity shares) in a foreign country.
  - (c) To invest directly in shops, factories, buildings in foreign countries.
  - (d) To send gifts and grants to abroad.
  - (e) To speculate on the value of foreign currency.
  - (f) To undertake foreign tours.

- The supply of foreign exchange have positive relation with foreign exchange rate. If foreign exchange rate rise the supply of foreign exchange rate also rise and vice versa.
- Sources of Supply of Foreign Exchange
  - (a) Foreigners purchasing domestic country's goods and services.
  - (ii) Foreign investment in the domestic country or economy
  - (iii) Remittances by non-residents living abroad.
  - (iv) Flow of foreign exchange due to speculative purchases by N.R.I.
  - (v) Exports of goods and services.
- Merits of Flexible Exchange Rate :
  - (i) No need to hold foreign exchange reserves
  - (ii) Leads to automatic adjustment in the 'balance of payments'.
  - (iii) To increase the efficiency in the economy by achieving optimum resources allocation.
  - (iv) To remove obstacles in the transfer of capital and trade.
- Demerits of Flexible Exchange Rate :
  - (i) Fluctuations in future exchange rate.
  - (ii) Encourages speculation.
  - (iii) Discourages international trade and investment.
- In currency depreciation, there is a fall in the value of domestic currency in term of foreign currency. In currency appreciation, there is a rise in the value of domestic currency in term of foreign currency.
- In currency appreciation, there is a rise in the value of domestic currency in terms of foreign currency.
- Equilibrium flexible exchange rate is determined at a level where demand for and supply of foreign exchange are equal to each other.
- Managed floating system is a system in which the central bank allows the exchange rate to be determined by market forces but intervenes at times to influence the rate.

VERY SHORT ANSWER TYPE QUESTIONS (1 MARK)

1. What is meant by balance of trade?
2. Define balance of payment.
3. When is there a deficit in the balance of trade.

4. The balance of trade shows a deficit of Rs. 300 crs. and the value of exports is Rs. 500 crs. What is the value of imports?
5. List two items included in the balance of trade account.
6. List two items of the capital accounts of balance of payment.
7. Define visible items with the help of an example.
8. What is meant by invisible items?
9. What is meant by unilateral transfer?
10. What is meant by Autonomous transactions?
11. Write the name of those economic transactions which are made by the government to make equilibrium in balance of payment.
12. What do you mean by Fixed Exchange Rate?
13. Define Flexible Exchange rate?
14. Name the forces that determine flexible exchange rate.
15. State two merits of Flexible Exchange Rate.
16. State two demerits of Flexible Exchange Rate.
17. State two merits of fixed exchange rate.
18. State two demerits of fixed exchange rate.
19. What is the slope of demand curve of foreign exchange like?
20. What is the slope of supply curve of Foreign Exchange?
21. What will be the effect on exports, if foreign exchange rate increases?
22. What will be the effect on imports if foreign exchange rate increases.
23. Define Devaluation of Domestic Currency.
24. What is meant by Depreciation of Domestic Currency?
25. What is meant by Appreciation of Domestic Currency?

HOTS (1 MARKS)

26. In which circumstances, the devaluation of currency will be in favour of economy?
27. In which circumstances the appreciation of currency will be non favourable for the economy?
28. Under which circumstances, the purchasing power of foreign currency increases in comparison to domestic currency?

29. With the help of which item BOP gets balanced?

30. Does BOP always remain balanced?

31. What is the basis of categorization of transactions from the rest of the world into current account and capital account of BOP?

SHORT ANSWER TYPE QUESTIONS (3-4 MARKS)

1. Write any three points of difference between BOT and BOP.
2. Distinguish between current account and capital account of BOP.
3. How can deficit in BOP be financed?
4. Distinguish between positive balance of trade and negative balance of trade?
5. Give difference between the autonomous and accommodating items included in BOP.
6. Differentiate between visible trade and invisible trade.
7. Give three reasons why people desire to have foreign exchange.
8. Give any three/four sources of supply of foreign exchange.
9. Explain the relationship between foreign exchange rate and demand for it.
10. Explain the relationship between foreign exchange rate and supply of foreign exchange.
11. Explain the terms 'appreciation and depreciation of currency.'
12. Explain the merit and demerits of fixed exchange rate.
13. Explain the merits and demerits of flexible exchange rate.
14. How is flexible exchange rate determined in a free market economy? Explain with the help of diagram.
15. Higher the foreign exchange rate, lower the demand fore foreign exchange. Explain why?
16. Lower the foreign exchange rate, higher the demand for foreign exchange. Explain why?
17. Explain the impact of Devaluation of domestic currency on the export and imports of an economy.
18. Give the meaning of fixed flexible and managed floating exchange rate.
19. Why the demand for foreign exchange falls when the foreign exchange rate rise explain with the help of an example.

HOTS

20. What is the impact of appreciation currency of the demand for foreign exchange?
21. What is the impact of appreciation of currency on the supply of foreign exchange?

22. What is the impact of depreciation of currency on the demand for foreign exchange?

23. What is the impact of depreciation of currency on the supply of foreign exchange?

ANSWERS

1 MARKS QUESTIONS

1. It is the difference between monetary value of exports and imports of material goods or visible items.

2. A balance of payment is a statement of double entry system of all economic transactions between residents of a country and the residents of foreign countries during a given period of time.

3. When the value of imports is more than value of exports.

4. 800 Crores.

5. Visible items Watch, Petrol, Electronic item.

6. (i) Foreign investment

   (ii) Loans

7. The visible items are all those types of physical goods which are exported and imported.

8. Invisible items are all those type of services which are exported and imported.

9. These refers to one sided transfers from one country to other. These are not trading transactions.

10. Autonomous transactions refer to international economic transactions in the current and capital account that are undertaken for profit.

11. Accommodating items.

12. Fixed exchange rate is the rate which is officially fixed in terms of fold or any other currency by the govt. or adjusted only frequently.

13. Flexible exchange rate is determined by demand for and supply of a given currency in foreign exchange market.

14. (i) Market demand for foreign exchange

    (ii) Market supply of foreign exchange.

15. (i) No need to hold foreign exchange reserve.

    (ii) Optimum resource allocation.

16. (i) Fluctuations in figure exchange rate.

    (ii) Encourages speculation.

17. (i) Stability in Exchange rate.
    (ii) No scope for speculation.
18. (i) Need to hold foreign exchange reserves.
    (ii) No automatic adjustment in the 'Balance of Payments.'
19. Negative slope.
20. Positive slope.
21. Exports will increase because Indian goods have become cheaper for foreigners.
22. Import will decrease because foreign goods have become costlier for Indians.
23. Devaluations means to reduce parity rate of its currency with respect of gold or any other currency by the Government.
24. When the value of domestic currency reduce with respect to other currency by the demand and supply forces of foreign exchange in a free exchange market.
25. Appreciation of currency refer when the value of foreign currency reduce with respect to domestic currency. It occurs in a free exchange market by the forces of demand and supply of currency.

1 MARK HOTS QUESTIONS

26. When we adopt the policy of Export Promotions.
27. When we adopt the policy of Import Substitution.
28. Capital account records capital transfer such as loans and investment between one country and the rest of the world which causes a change in the asset or liability status of the residents of a country or its government.
29. With the help of international loans.
30. They may be disequilibrium in BOP but in according sense, it is always balanced.
31. On the basis of change in assets and liabilities of the govt. in relation to other countries.

SAMPLE QUESTION PAPER – SET I

ECONOMICS

Time : 3 Hours **Maximum Marks : 100**

General Instructions :

(i) All questions in both the sections are compulsory.

(ii) Marks for questions are indicated against each.

(iii) Question Nos. 1–5 and 17–21 are very short-answer questions carrying 1 mark each. They are required to be answered in one sentence each.

(iv) Question Nos. 6-10 and 22-26 are short-answer questions carrying 3 marks each.

(v) Question Nos. 11-13 and 27-29 are also short-answer questions carrying 4 marks each. Answer to them should not normally exceed 70 words each.

(vi) Question Nos. 14-16 and 30-32 are long-answer questions carrying 6 marks each. Answer to them should not normally exceed 100 words each.

(vii) Answer should be brief and to the point and the above word limit be adhered to as far as possible.

SECTION – A

1. What does a rightward shift of PP curve (production possibility curve) indicate? 1

2. What is the price elasticity of supply of a commodity whose straight line supply curve passes through the origin forming an angle of 75°. 1

3. Give the meaning of Oligopoly. 1

4. What happens to total expendition on a commodity when its price falls and its demand is price elastic?1

5. How is total variable cost derived from a MC schedule? 1

6. Differentiate between substitute goods and complementary goods. 3

7. Define producers equilibrium and state its conditions. 3

8. The price elasticity of supply of good X is half the price elasticity of supply of good Y. A 10% rise in price of good Y results in a rise in its supply from 400 units to 520 units calculate the percentage change in quantity supplied of good X when its price falls from Rs. 10 to Rs. 8 per

unit. 3

9. A firms' average fixed cost of producing 2 units of a good is Rs. 9 and given below is its total cost schedule. Calculate its Average variable cost and marginal cost for each of the given level of output. 3

Output	1	2	3
TC (Rs.)	23	27	30

10. Explain the implication of 'Homogeneous Product' feature of perfect competition.

OR

Explain the implication of 'Product Differentiation' feature of monopolistic competition.

11. Does a fall in income have the same affect on demand for the given commodity? 4

12. Explain the meaning of 'Market Economy' and 'Centrally Planned Economy'. 4

OR

Explain the Central problem of distribution in an economy. 4

13. Mention any four features that effect the price elasticity of demand. 4

14. Giving reasons, state wheather the following statements are true or false.

    (i) When there are diminishing returns to a factor marginal product and total product both always diminish.

    (ii) When marginal revenue is positive and constant, AR and MR will both increase at constant rate.

    (iii) As output is increased, the difference between average total cost and average variable cost falls and ultimately becomes zero.

15. What will the impact on market price and quantity exchanged when 6

    (i) There is rightward shift in demand curve

    (ii) The demand curve is perfectly elastic and supply curve shifts rightward.

    (iii) Both the demand and supply decrease in same proportion.

16. Why is the consumer in equilibrium when he buys only that combination of two goods that is shown at the point of tangency of the budget line with an indifference curve? Explain. 6

OR

Explain three characteristics of indifference curve.

SECTION B

17. Write the meaning of autonomous consumption. 1

18. What is meant by ex-ante saving? 1

19. Give two examples of tax revenue. 1

20. State two sources of demand for foreign exchange. 1

21. Give the meaning of money. 1

22. Distinguish between stocks and flows. Give an example of each

OR

Explain the circular flow of income. 3

23. Explain the 'lender of last resort' function of the Central Bank. 3

24. Explain two components of the Govt. Budget. 3

25. Distinguish between fixed and flexible foreign exchange rate. 3

26. Distinguish between current account and capital account of Balance of payment account. 3

27. How does money overcome the main problem of exchange in the barter system. Explain. 4

28. Explain the objective of stability of prices of Government Budget. 4

OR

Explain the allocation function of a Government budget.

29. State wheather the following statements are true or false. Give reasons for your answer. 4

    (a) When investment multiplier is 1. The value of MPC is zero.

    (b) The value of average propensity to save can never be less than 1.

30. Explain the problem of double counting in estimating national income, with the help of an example also explain two alternative ways of avoiding the problem. 6

OR

How are the following treated in estimating the national income by income method? Give reason.

    (a) Medical expenses of employees borne by employers.

    (b) Interest on a car loan paid by an individual.

    (c) Interest on a car loan paid by a government owned company.

31. Calculate (a) Gross domestic product at factor cost and (b) factor income to abroad, from the following data.

		Rs. (Crore)
(i)	Gross national product at factor cost	3750
(ii)	Compensation of employees	2000
(iii)	Net Exports	–(50)
(iv)	Profits	700
(v)	Net domestic capital formation	1000
(vi)	Opening stock	150
(vii)	Closing stock	200
(viii)	Gross fixed capital formation	1050
(ix)	Interest	600
(x)	Rent	400
(xi)	Factor income from abroad	20

32. In an economy the consumption function is C = 500 + 0.8Y where C is consumption expenditure and Y is income. Calculate the equilibrium level of income and consumption expenditure when investment expd. is 500. 6

MARKING SCHEME / SOLUTION

1. It indicates growth of resources or technological improvement or both resulting in increased productivity.
2. Price elasticity of supply is equal to one.
3. It is a form of market in which there are a few firms.
4. Total expenditure will increase.
5. Total variable cost is derived by summing up of marginal cost.
6. Substitute goods are a pair of goods which can be used in place of each other to satisfy a given want (tea and coffee) where as complementary goods are a pair of goods which are used together to satisfy a given want (Car and petrol).
7. A producer is said to reach equilibrium at the level of output which gives him maximum profit. Its conditions of equilibrium are

   (i) TR – TC is maximum or

   (ii) MR = MC and MC should be rising

8. $$\text{Es of good Y} = \frac{\text{\% Change in supply of good Y}}{\text{\% Change in price of good Y}}$$

   $$= \frac{\frac{120}{400} \text{x} 100}{10} = \frac{30}{10} = 3$$

   Since Es of X is half of Es of Y.

   Therefore Es of 'X' $= \frac{3}{2} = 1.5$

   $$1.5 = \frac{\text{\% Change in supply of X}}{\frac{-2}{10} \times 100}$$

   % Change in supply of X = 1.5 × (–20) or supply of X falls by 30%

9. TFC = AFC × No. of Units of output

   = 9 × 2 = 18

Output Q Units	*TC Rs.*	*TFC Rs.*	*TVC Rs.*	*AVC Rs.*	*MC Rs.*
1	23	18	5	5	5
2	27	18	9	4.50	4
3	30	18	12	4	3

10. Homogeneous product means that the buyer treat product of all firms in the industry as identical. Therefore the buyers are willing to pay only the same price for the products of all the firms in the industry. It also implies that no individual firm is in a position to change a higher price for its product. This ensures uniform price in the market.

OR

Product differentiation means that the buyer of a product differentiate between the same product produced by different firms. Therefore, they are also willing to pay different prices for the same product produced by different firms. This gives an individual firm some monopoly power to influence market price of its product.

11. No, fall in income does not have the same effect on demand for the given commodity.

    (i) If the given commodity is a normal good then fall in income will reduce the demand for the normal good.

    (ii) If the given commodity is an inferior good then fall in income will raise the demand for inferior good.

    (iii) If the given commodity is a necessity then fall in income will not change the demand of necessity good.

12. In a market economy resources are owned privately. The central problems in such an economy are solved by the price mechanism and the objective of production is to earn profit.

    In centrally planned economy the resources are owned by the state. All economic activities are planned by the government or a central authority. The objective of production is social welfare.

OR

The problem is related to distribution of goods and services produced in the economy. It arises because the output produced is limited while the wants of people are unlimited. In other words it is the problem of distribution of income because income gives the people power to purchase these goods.

13. Any ***four*** with explanations

    (i) Nature of commodity.

    (ii) Availability of substitutes.

    (iii) Income level.

    (iv) Postponement of consumption

    (v) Share in total expenditures.

(vi) Habits etc.

14. (i) False. Because MP will diminish but TP will still increase if MP is positive.

(ii) True. Because under perfect competition AR and MR are equal, therefore both increase at a constant rate.

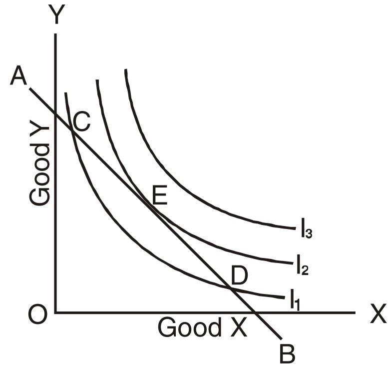
(ii) False. Because difference between ATC and AVC is AFC (Average Fixed cost)

15. (i) Equilibrium (market) price and quantity will increase, presuming supply to be constant.

(ii) It will lead to decrease in price and increase in quantity transacted.

(iii) Equilibrium price will not affected but quantity supplied and demanded will decrease in the same ratio.

16.



Let the two goods be X and Y as shown in the diagram. The tangency is at point E where slope of indifference curve = slope of budget line

or $MRS_{xy} = \frac{Px}{Py}$

The equilibrium purchase is OX of X and OY of Y on the indifference curve I_2 level higher than I_2 because his income does not permit him to move above the budget line A_B. The consumer will not like to purchase any other bundle on the budget line AB. For example the bundle of C and D because they all lie on the lower indifference curve and give him lower satisfaction. Therefore the equilibrium choice is only of the tangency point E.

OR

Three properties or Characteristics of indifference curve are.

(i) **Sloping downwards from left to right :** The curve is negatively sloped because to obtain more quantity of one good the consumer must give up some quantity of the other good in order to remain at the same utility level the curve represents.

(ii) **Strictly Convex Towards the Origin :** It is because the marginal rate of substitution continuously declines the consumer moves down wards along the curve. This is due to the law of diminishing marginal utility.

(iii) **Higher indifference curve represents higher utility :** This is because of the assumption that preferences are monotonic and more quantity consumed means more utility. Higher indifference curve represents more quantity of good.

(iv) Indifference curve can never intersect each other etc.

SECTION – B

17. The consumption expenditure at zero level of income is called autonomous consumption.

18. Ex-ante saving is planned or intended amount of saving at different level of income with the given period of time.

19. Income tax. Corporate tax.

20. Following are the two sources of demand for foreign exchange :

    (i) Imports of goods and services.

    (ii) Remittances to other countries.

21. Money can be defined as any thing that is generally accepted as a means of exchange and at the same time acts as a measure and store of value.

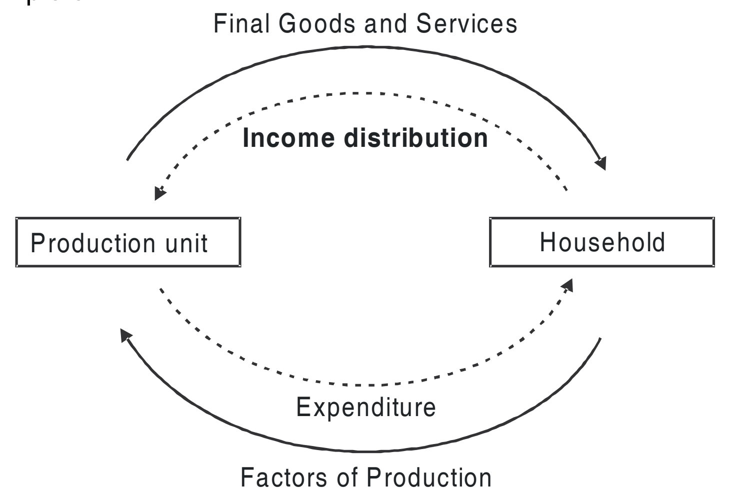
22. Stock-refers those economic variables which are measurable at a particular point of time *e.g.,* population.

    Flow : refers those economic variables which are measurable over a specified period of time *e.g.,* Birth rate, income of person.

OR

The circular flow of income refers to the generation of income is production units leading to distribution of this income between households as factor payments which in turn household spend on goods and services produced by production units.

In this way, income generated in production which reaches back to production unit and makes the circular flow complete.



23. The Central Bank acts as a lender of the last resort for 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 saves banks from a possible breakdown.

24. The two components of Govt. budget are

    (i) **Revenue Budget :** Revenue budget consists of revenue receipts of the Govt. and the expenditure met from such revenues. The revenue receipts include tax revenue and non-tax revenue.

    (ii) **Capital Budget :** It consists of capital receipts and capital expenditure of the Govt. Capital receipts include market borrowing, foreign debts, repayment of loans and advances. Capital expenditure includes construction of buildings, bridges, repayment of loans etc.

25. **Fixed Exchange Rate :** is the rate which is officially fixed in terms of gold or any other currency by the Govt. such rate does not vary with changes in demand and supply of foreign currency only the Govt. has the power to change it.

    Flexible Exchange Rate : is that rate which is determined by the forces of demand and supply of foreign exchange. It is free to fluctuate according to changes in demand and supply of foreign currency.

26. BOP account is a statement of all economic transactions that take place between a nation and the rest of the world during a given period.

    BOP account comprises current account and capital account.

    (1) **Current Account :** is the account which records imports and exports of goods and services and unilateral transfers.

    (2) **Capital Account :** is that account which records capital transactions such as foreign investments, loans, banking other capital and monetary movements.

27. Money has solved the problem of double coincidence of wants by serving as 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 good that we need. Now a person can sell his goods to another person for money and then he can use that money to buy the goods he wants from other. So money has made the exchange of goods easy.

28. The Govt. budget can be used to stabilise the prices in an economy. Price stability refers to the minimisation of fluctuations in prices in the economy. Appropriate taxation and public expenditure policies may be implemented for this purpose. To reduce the purchasing power of the people. Govt. may impose new taxes and raise the rate of existing taxes. The Govt. may reduce public expd. to achieve the objective of price stability.

    OR

    Allocation of resources is an important function of Govt. budget. The Govt. reallocates its resources in accordance with economic and social priorities of the country through its budget. The Govt. can encourage the private sector through tax concessions, subsides etc. to undertake production of certain goods in public interest. The Govt. undertake activities like water supply sanitation etc. in public interest.

29. (a) The statement is true. When the value of K = 1, MPC = 0

It is shown as $K = \frac{1}{1-MPC}$

Given $K = 1$

$$K = \frac{1}{1-MPC}$$

$$1 - MPC = 1$$

$$MPC = 1 - 1$$

$$= 0$$

Thus when investment multiplier is 1, the value of MPC is zero.

(b) The statement is false. The value of APS can be negative. It is shown as :

$APC + APS = 1$

$$APC = \frac{C}{Y}$$

if c = 1200 and Y = 1000

then $APC = \frac{1200}{1000} = 1.2$

$$1.2 + APS = 1$$

$$APS = -0.2$$

The value of APS is generally less than 1.

30. The problem of double counting is the problem of estimating the value of goods and services more than once. All enterprises treat their sales as final goods and services. This leads to the problem of double counting. This should be avoided because if the value of any commodity is counted more than once it will result in overestimation of the national income.

(i) **Final goods and services method :** We can avoid double counting by taking into account the value of final goods and services.

(ii) **Value added method :** This problem can be avoided by taking into account net value added at each stage of production. The value added of each enterprise is added.

31. (a) NDP_{FC} = (ii) + (iv) + (ix) + (x)

= 200 + 700 + 600 + 400

= 3700

$GDP_{FC} = NDP_{FC} + CFC$

$$CFC = GDCF - NDCF$$
$$= (GFCF + \Delta S) - NDCF$$
$$= [1050 + (200 - 150)] - 1000$$
$$= 100$$
$$GDP_{FC} = 3700 + 100 = 3800 \text{ Crores.}$$

(b) FIPA : Factor income paid to abroad.

$$NFIA = GNP_{FC} - GDP_{FC}$$
$$= 3750 - 3800$$
$$= (-)\ 50$$
$$NFIA = FIFA - FIPA$$
$$-50 = 20 - FIPA$$
$$FIPA = 20 + 50 = 70 \text{ Crores.}$$

32. (1) Given $C = 500 + 0.8y$

$$I = 500$$

We know, $Y = C + I$

$$Y = 500 + 0.8y + 500$$
$$Y - 0.08y = 1000$$
$$y = 1000/0.2 = 5000$$

(ii) $C = Y - I$

$$= 5000 - 500$$
$$= \text{Rs. } 4500 \text{ Crores}$$

SET II

Time : 3 Hours **Maximum Marks : 100**

General Instructions :

(i) All questions in both the sections are compulsory.

(ii) Marks for questions are indicated against each.

(iii) Question NOs. 1–5 and 17–21 are very short-answer questions carrying 1 mark each. They are required to be answered in one sentence each.

(iv) Questions NO. 6-10 and 22-26 are short-answer questions carrying 3 marks each.

(v) Question No. 11-13 and 27-29 are also short-answer questions carrying 4 marks each. Answer to them should not normally exceed 70 words each.

(vi) Question No. 14-16 and 30-32 are long-answer questions carrying 6 marks each. Answer to them should not normally exceed 100 words each.

(vii) Answer should be brief and to the point and the above word limit be adhered to as far as possible.

SECTION – A

1. Define opportunity Cost.

2. What do you mean by the budget set of a consumer.

3. Which of the two intersecting supply curves has higher price elasticity?

4. Give two examples of Variable cost.

5. Under which market form, a firm is price taker?

6. Differentiate between positive economics and normative economics.

7. State the conditions of consumer equilibrium in case of indifference curve approach.

8. State three determinants of supply of a commodity and explain any one of them.

9. What is the behaviour of TP when

   (i) MP falls but remains positive

   (ii) MP is zero

   (iii) MP becomes negative.

10. To what extent can a firm influence the price under :

(a) Monopolistic competition

(b) Monopoly

(c) Oligopoly

11. Distinguish between expansion of demand and increase in demand.

12. Price elasticity of demand of a good is (–1). At a given price the consumer buys 60 units of the good. How many units will consumer buy if price falls 10%.

13. "A producer will increase his profit by reducing production when his MC is greater than his MR" explain.

14. Explain with the help of diagram, the affect of following changes on the demand of a commodity.

    (i) An unfavourable change in taste of the buyer for the commodity.

    (ii) A fall in the income of its buyer if the commodity is inferior.

15. Complete the following table.

Input units	*Average variable cost (Rs.)*	*Total Cost (Rs.)*	*Marginal Cost (Rs.)*
1	–	60	20
2	18	–	–
3	–	–	18
4	20	120	–
5	22	–	–

16. Explain with a diagram the chain effect on demand, supply and price caused by leftward shift of demand curve.

SECTION B

17. Define marginal propensity to save.

18. What is meant by Autonomous investment.

19. Define indirect tax.

20. What is meant by Money supply.

21. Define budget.

22. Distinguish between revenue receipts and capital receipts with the help of an example.

23. Explain the role of central bank as "Bankers' Bank".

24. Calculate ‘Sales’ from the following data.

(i)	Net value added at factor cost	300
(ii)	Net addition to stocks	(–)20
(iii)	Sales tax	30
(iv)	Depreciation	10
(v)	Intermediate consumption	100
(vi)	Subsidy	5

25. What is meant by devaluation of domestic currency. Explain that devaluation of domestic currency is a useful policy of Export promotion

OR

Explain with the help of an example that when exchange rate of foreign currency rises, why its demand falls.

26. Explain how the government budget can help in a fair distribution of income in the economy.

27. How does a commercial bank creates money in single banking system explain with numerical example.

28. State the meaning of capital account of balance of payment. State the components of capital account of balance of payment.

29. Define and represent ‘Deflationary Gap’ on the diagram. Explain the role of the “varying reserve requirement’ in removing the Gap.

OR

Giving reasons, State whether the following statements are true or false.

(i) There is an inverse relationship between the value of marginal propensity to save and investment multiplier.

(ii) When the value of average propensity to save is negative, the value of marginal propensity to save will also be negative.

30. In an economy the equilibrium level of income is Rs. 20,000. The ratio of marginal propensity to consume and marginal propensity to save is 3 : 1. Calculate the additional investment needed to reach a new equilibrium level of income of Rs. 25,000 crore.

31. How will you treat the following while estimating national income of India? Give reasons for your answer.

(a) Scholarship given to Indian student studying in India by a Foreign company.

(b) Profit earned by the branch of an Indian bank in Pakistan.

(c) Dividend received by a foreigner from investment in shares of an Indian company.

OR

Distinguish between real gross domestic product and nominal Gross Domestic Product. Can gross domestic product be used as an index of welfare of the people? Give two reasons.

32. Calculate from the following data.

(a) Gross domestic product at Factor cost.

(b) Factor income to abroad.

		Rs. (Crore)
(i)	Gross national product at Factor cost	7,500
(ii)	Compensation of employees	4,000
(iii)	Net exports	–(100)
(iv)	Profit	1,400
(v)	Net domestic capital formation	2,000
(vi)	Opening stock	300
(vii)	Closing stock	400
(viii)	Gross fixed capital formation	2,100
(ix)	Interest	1,200
(x)	Rent	800
(xi)	Factor Income from abroad.	40