LIST OF MEMBERS WHO PREPARED QUESTION BANK FOR ECONOMICS FOR CLASS XII

TEAM MEMBERS

Sl. No.	*Name*	*Designation*
1.	**Mrs. Neelam Vinayak** ***(Team Leader)***	*V. Principal* G.G.S.S. Deputy Ganj, Sadar Bazar Delhi-110006
2.	**Sh. S.P.S. Rathi**	*P.G.T. (Economics)* Rajkiya Pratibha Vikas Vidyalaya BT Block, Shalimar Bagh, Delhi-88
3.	**Sh. Sanjeev Kumar**	*P.G.T. (Economics)* G.B.S.S.S. No. 2, Ghonda, Delhi-110053

QUESTION BANK

ECONOMICS

DESIGN OF SAMPLE QUESTION PAPER FOR MARCH, 2012 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.
- Economy is an Economic Organisation which provides sources to earn livelihood.
- 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**

Allocation of Resources

What to produce? How to produce? For whom to produce?

- For the selection of an opportunity, the sacrifice of next best alternative use is called opportunity cost.
- 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 PPF
  - (a) Slopes downward from left to right
  - (b) Concave to the origin.
- Rightward shift of PPF indicates increase in resources and improvement in technology.
- Marginal Rate of Transformation (MRT) is the ratio of number of units of a good sacrificed to increase one more unit of the other good.
- MRT can also called Marginal opportunity cost. It is defined as the additional cost in terms of number of units of a good sacrificed to increase an additional unit of the other good.

VERY SHORT ANSWER TYPE QUESTIONS (1 MARK)

1. With the help of an example, define micro economics.
2. Define macro economics with the help of an example.
3. Define opportunity cost.
4. Why does an economic problem arise?
5. Write two characteristics of resources.
6. What do you mean by scarcity?
7. Define Marginal Rate of Transformation.
8. What do you mean by an economy?

HOTS

9. Sugar industry is a subject matter of micro economics. Give reason.
10. What do you mean by alternative uses of resources?
11. What will be the shape of PPF when MRT is constant?
12. 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. Why is a production possibility curve concave? Explain.
6. Define opportunity cost with the help of an example, how does it differ from marginal opportunity cost?

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. How is PPC affected by unemployment in the economy? Explain.
10. Define opportunity cost and explain it with the help of an example.
11. Explain how a PPC is affected where resources are in efficiently employed in an economy.
12. Calculate MRT from following table. What will be the shape of PPF and why?

Combinations	***Good A (units)***	***Good B (units)***
A	20	0
B	18	1
C	14	2
D	8	3
E	0	4

13. Explain features of P.P.C.

ANSWER OF VERY SHORT TYPE QUESTIONS

1. Micro Economics is that branch of economics in which economic problems are studied at individual level e.g. the behaviour of consumer, firms, etc.
2. Macro economics is that branch of economics which studies the economy as a whole and its aggregates e.g. National income, the level of employment.
3. An economic problem arises due to scarcity of resources having alternative uses in relation to unlimited wants.
4. Resources are scare (limited) and they have alternative uses.
5. Scarcity refers to a situation in which demand is more than supply.
6. Marginal rate of transformation (MRT) is the ratio of one good sacrificed to increase one more unit of the other good.
8. An economy is an economic organisation which provides sources to earn livelihood.
9. Sugar industry is a subject matter of micro economics because it is only a unit of industries.
10. Alternate use of resources mean, more than one uses to which a resource can be put.
11. Shape of PPF will be a straight line sloping down ward.
12. Unemployment in India is a subject matter of macroeconomics because it relates to economy as whole.

HINTS [3 MARKS QUESTIONS]

12.

Combinations	*Good A*	*Good B*	*MRT = $\Delta A/\Delta B$*
A	20	0	–
B	18	1	2 : 1
C	14	2	4 : 1
D	8	3	6 : 1
E	0	4	8 : 1

UNIT 2

CONSUMER'S BEHAVIOUR & THEORY OF DEMAND

POINTS TO REMEMBER

- **Consumer :** is an economic agent who consumes final goods and services.
- **Total utility :** It is the sum of satisfaction from consumption of all the units of a commodity 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 Marginal utility derived from the last unit goes declining.
- **Consumer's Bundle :** It is a quantitative combination of two goods which can be purchased by a consumer from his given income.
- **Budget set :** It is quantitative combination of those bundles which a consumer can purchase his from given income at prevailing market prices.
- **Consumer Budget :** It states the real income or purchasing power of the consumer from which he can purchase the certain quantitative bundles of two goods at given price.
- **Budget Line :** Shows those combinations of two goods which a consumer can buy from limited income on same curve.
- **Monotonic Preferences :** Consumer's preferences are called monotonic when between any two bundles, one bundle has more of one good and no less of other good.
- **Change in Budget Line :** There can be parallel shift (leftwards or rightwards) due to change in income of the consumer.

- **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 :

  (i) In case of one good $\rightarrow MU_x = P_x$

  where $MU_x \rightarrow$ Marginal utility of good X

  $P_x \rightarrow$ Price of Good X

  (ii) Increase of two goods $\frac{MUx}{Px} = \frac{MUy}{Py} = MU_m$

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

  (i) Decreasing 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.

- **Demand :** It is that quantity which a consumer purchases or 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 demand changes due to change in any one of its determinants other than the price.
- **Change in Quantity Demanded :** When demand changes due to change is its own price.

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.

Other Factors → 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 Curve
  - **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.

- **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 or Outlay method
- Geometric method

Percentage Method

$$E_d = \frac{\Delta Q}{\Delta P} \times \frac{P}{Q} \text{ or } Ed = (-)\frac{Q_1 - Q_0}{P_1 - P_0} \times \frac{P_0}{Q_0}$$

$E_d \rightarrow$ Elasticity of Demand

$\Delta Q \rightarrow$ Change in quantity

$\Delta P \rightarrow$ Change in Price

$P \rightarrow$ Initial Price

$Q \rightarrow$ Initial Quantity

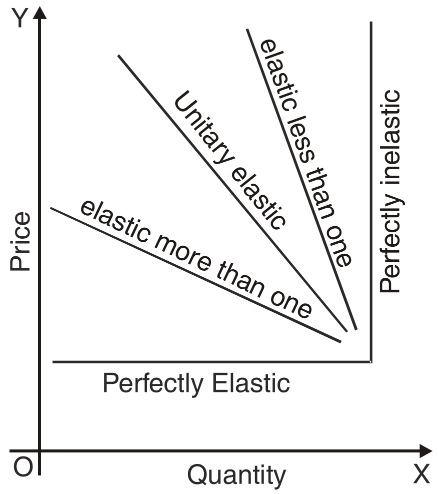
Or $$E_d = \frac{\text{Percentage Change in Quantity}}{\text{Percentage Change in Price}}$$

- **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 segment of the demand curve with the length of upper segment of demand curve at that point.

$$Ed = \frac{\text{Lower segment of the demand curve}}{\text{Upper segment of the demand curve}}$$

Degree of Price Elasticity of Demand



- **Factors effecting Price elasticity of Demand**

  (a) Behaviour of the consumer

  (b) Nature of the commodity

  (c) Possibility of postponement of consumption.

  (d) Part of income to be spent on the commodity

(e) Number of close substitute

(f) Alternative uses of commodity

(g) Income of the consumer

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. What will be the behaviour of total utility when marginal utility is zero?
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. What is meant by budget set.
9. Define Indifference curve Map.
10. How is budget line defined?
11. Why does higher indifference curve give more satisfaction?
12. What is the impact of diminishing marginal rate of substitution on the slope of indifference curve?
13. Define monotonic preference.
14. How is market demand schedule derived with the help of individual demand schedules?
15. Define normal good.
16. How does availability of substitute good affect the elasticity of demand?
17. Demand of good 'X' falls due to increase in the income of the consumer what type of good 'X' is?

18. What will be the impact on demand of the good due to increase in price of the substitute good?

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

20. What is meant by market demand?

21. Define demand schedule.

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

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

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

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

26. Why is demand of water inelastic?

H.O.T.S.

27. What happens to total expenditure of a commodity when its price falls and its demand is unit elastic?

28. Why does total utility increases at diminishing rate due to continuous increase in consumption?

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

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

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 in case of single 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 remains above X–axis

(b) Marginal utility curve touches X–axis

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

5. State three features of indifference curve.

6. Why does two indifference curves not intersect 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. Explain by giving an example, how price elasticity of demand of a good depends on the nature of good.

11. State elasticity of demand of followings :

(a) Luxurious goods

(b) Goods of alternate use

(c) Necessity goods.

12. Distinguish between expansion of demand and increase in demand with the help of diagram.

13. 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.

14. What is an inferior good? In what manner does the demand curve of such a good affected when income of the consumer increase? Use diagrams.

15. Distinguish between change in demand and change in quantity demanded.

16. What will be the effect of following on elasticity of demand.

    (a) time factor (b) nature of the product.

17. How is price elasticity of demand of a good influenced by availability of its close substitute? Explain by giving an example.

18. "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.

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

    (a) Perfectly elastic demand

    (b) Perfectly inelastic demand

    (c) Unit elastic demand.

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

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

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

23. 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.

NUMERICAL QUESTIONS

24. The price elasticity of Demand of commodity X and Y are equal. The price of X falls from Rs. 10 to Rs. 8 per unit and its quantity demanded increase by 16 percent. The price of Y rises by 10 percent. Calculate the percentage decrease in its demand.

25. 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'.

26. 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.

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

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

29. The price elasticity of demand of a commodity is –0.5. At a price of Rs. 20 per unit, total expenditure on it is Rs. 2,000. Its price is reduced by 10 percent. Calculate its demand at the reduced price.

H.O.T.S.

30. State four determinants of price elasticity of demand.

31. Fill in the gaps in the following equations :

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

    (ii) $? = \Sigma MU$

    (iii) $MU_n = TU_n - ?$

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

32. Differentiate between :

    (i) Normal goods and Inferior goods

    (ii) Complimentary goods and substitute goods.

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

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

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

LONG QUESTIONS (6 MARKS)

1. Explain the conditions of consumer's equilibrium with the help of the indifference curve analysis. Represent the same in a diagram.
2. Explain the determination of consumers equilibrium with the help of a schedule in case of two commodities by using utility approach.
3. Why does demand curve slope downward?
4. Explain the determinants of price elasticity of demand.
5. Explain the causes of increase in demand (rightward shift of demand curve).
6. 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 price of complementary good.
7. What are the conditions of consumer's equilibrium under the indifference curve approach? What changes will take place if the conditions are not fulfilled to reach equilibrium?

H.O.T.S.

8. 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.
9. How will a fall in the price of tea affect the equilibrium price of coffee? Explain the chain of effects.
10. Whether the following statements are true or false? Give reasons.
    (i) Two indifference curves never intersects each other.
    (ii) Income effect of inferior good is positive.
    (iii) Change in quantity demanded is the explanations of law of demand.

11. 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 if 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

VERY SHORT ANSWER TYPE QUESTIONS

1. Utility is the power of goods to satisfy human wants.
2. Total utility is derived by summing up the marginal utilities TU = ΣMU.
3. Law of diminishing marginal utility states that as more and more units of a commodity are consumed marginal utility derived from every additional unit must decline.
4. Total utility will be maximum.
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 rate of sacrifice of one good to get an additional unit of other good.
8. The set of bundles available to the consumer with his given income at prevailing market price is called the budget set.
9. A family of indifference curve indicating different levels of satisfaction called indifference map.
10. 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.
11. Higher difference curve shows a higher level of satisfactions. It shows the various combinations of excess quantity of both goods than lower indifference curve.

12. Indifference curve become convex towards the origin.

13. Consumer's preferences are called monotonic when between any two bundles, one bundle has more of one good and no less of other good.

14. By summations of individual schedules.

15. Normal goods are those goods, the demand for which increases as income of the buyer rise. There in positive relation between income and demand of these goods.

16. The demand of a good becomes elastic if its substitute good is available in the market.

17. Good 'X' is an inferior good.

18. The demand of the good will increase.

19. Elastic.

20. Market demand is the sum of total demand of all the consumers in the market at a particular time and at a given price.

21. Demand schedule is a tabular representation which represent different quantities of the commodity demanded at different prices.

22. Increase in price while other factors are constant.

23. Rightward.

24. Equal to unit.

25. Perfectly elastic.

26. Because water is a necessity good.

H.O.T.S. (ANSWERS)

27. Total expenditure will remains unchanged.

28. 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.

29. These are complimentary goods.

30. 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.

  $Ox = F\ (i., i_2 \ldots in)$

  $Ox \rightarrow$ Production of Good X

  $f \rightarrow$ function of

  $i, i_2 \ldots\ldots in \rightarrow$ 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 are employed with given fixed factors, then returns to a factor operates. Returns to a factor shows the changes in total products, marginal product 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 as more and more units of variable factor are employed with fixed factor total physical production increases at increasing rate.

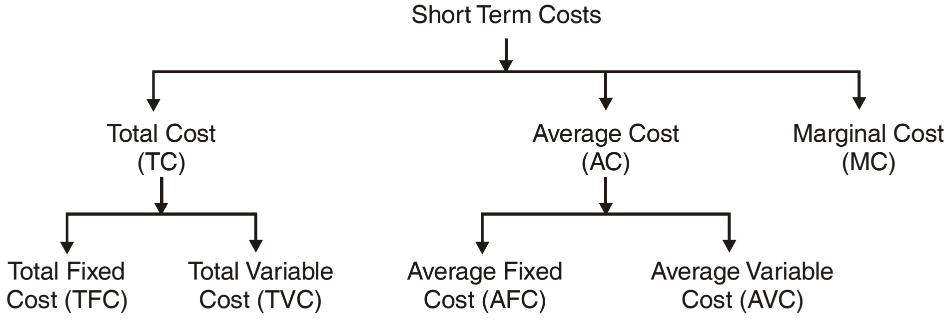
(B) **Decreasing returns to a factor :** As more and more units of variable factors are employed with fixed factors, then total product increases at diminishing rate.

(C) **Negative returns to a factor :** This is the last stage of returns to a factor. 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 those of factor and non-factor inputs which are not owned by produces 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 vertical 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 price 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 :** If refers the stage where producer getting maximum profit.

(A) **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 tabular presentation which shows various quantities of a commodity that a producer is willing to supply at different prices, during a given period of time.

- **Supply curve :** Refers to the graphical representation of supply schedule which represents various quantities of a commodity that a producer is willing to supply at different during given period of time.
- **Law of Supply :** States the direct relationship between price and quantity supplied, keeping other factors constant.

  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 :** (a) If the tangent to the supply curve passes through the point of origin, E_s at that point is equal to unity. (b) If the tangent intersects the x-axis, E_s at that point is less than unity (c) if tangent intersects the y-axis E_s at that point will be greater than unity.

Determinants of Supply

- Price of Commodity
  - Change in Quantity Supplied
    - Extension in Supply → Rise in price of commodity → Upward movement along a Supply curve
    - Contraction in Supply → Fall in Price of Commodity → Downward movement along a Supply curve
- Other Factors
  - Number of firms
  - Change in technology
  - Tax policy
  - Price of Inputs
  - Future Expectation
  - Price of other goods

Other Factors → Change in Supply

- Increase in Supply → Rightward shift of Supply curve

  Causes

  (i) Increase in No. of firms
  (ii) Improvement in technology
  (iii) fall in price of Inputs
  (iv) Decrease in tax rates
  (v) Expected fall in price of commodity in near future

- Decrease in Supply → Leftward shift of Supply curve

  Causes

  (i) Decrease in no. of firms
  (ii) Outdated and obsolete Technology
  (iii) Increase in price of Factor inputs
  (iv) Increase in tax rates.
  (v) Expected rise in price of commodity in near future

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? Give example.
7. By which behaviour of marginal product will total product be maximum?

8. How does fall in total product affects marginal product?
9. What do you mean by cost?
10. Define explicit costs.
11. Which cost curve is parallel to ox-axis? Why?
12. What do you mean by implicit costs?
13. Define marginal cost.
14. Why does the difference between average total cost and average variable cost falls with increase in output?
15. Define Revenue.
16. At what rate average and marginal revenue falls, with fall in per unit price of a good?
17. What will be the behaviour of Average revenue when total revenue increases at constant rate?
18. What do you mean by marginal revenue?
19. What will be the behaviour of total revenue when marginal revenue is zero?
20. Why does average cost curve and averages variable cost curve never intersect each other?
21. What do you mean by producer's equilibrium?
22. State any two conditions of producers equilibrium according to marginal revenue and marginal cost approach.
23. What do you mean by normal profit?
24. What do you mean by break-even point?
25. Define supply.
26. What do you mean by individual supply schedule?
27. What is meant by market period?
28. What is supply function?
29. Name two determinants of supply.

30. What is meant by change in supply?

31. What type of change in price is the cause of upward movement along a supply curve?

32. What effect does an increase is tax rates have on supply of a commodity?

33. What causes a downward movement along a supply curve?

34. What is meant by leftward shift of supply curve?

35. How does a decrease in price of input effect supply curve of the commodity?

36. Why does a supply curve have a positive slope?

37. What is meant by elasticity of supply?

38. What is the price elasticity of supply, if supply curve is parallel to y-axis.

39. When does the elasticity of supply of commodity called equal to unity?

40. When does the producer increase the supply of a good at given price, give two reasons.

41. What is meant by Law of Supply?

42. Write two exceptions of law of supply.

43. What causes an extension in supply?

44. 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.

45. Why is total variable cost curve parallel to total cost curve?

46. Why does average fixed cost fall with increase in output?

47. Why is total fixed cost curve parallel to ox-axis.

48. Under which situation will MR fall when an additional quantity of a good is sold?

49. What behaviour of per unit price will cause the equality of average and marginal revenue.

50. Give one differences between law of supply and price elasticity of supply.

51. What is the price elasticity of supply associated when the supply curve passing through to intersect to x-axis?

52. Why does a producer moves downward along a supply curve due to decrease in price of commodity?

53. What is the price elasticity of supply associated with when a supply curve passes through the origin at 40° angle?

54. When does the supply curve shift rightward while price remains constant.

55. What effect does an increase in price of competitive good have on the supply of a commodity?

56. How does the imposition of a 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 with Marginal Revenue and Marginal Cost Curves.

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

13. Explain producer's equilibrium with the help of a numerical example using marginal revenue and marginal cost approach.

14. Draw in a single diagram the average revenue and marginal revenue curves of a firm which can sell any quantity of the good at a given price. Explain.

15. Complete the following table :

Output (Units)	***Total Cost (Rs.)***	***Average Variable Cost (Rs.)***	***Marginal Cost (Rs.)***
1	90	–	30
2	–	–	–
3	–	–	–
4	180	30	–

16. Given below is the cost schedule of a firm. Its average fixed cost is Rs. 20 when it produces 3 units.

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

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

17. Complete the following table :

Output (Units)	***Average Variable Cost (Rs.)***	***Total Cost (Rs.)***	***Marginal Cost (Rs.)***
1	18	60	20
2	–	–	–
3	–	–	–
4	20	120	–
5	22	–	–

18. Define market supply. Explain its two determinants.

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

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

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

22. 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 price of the good.

23. 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.

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

25. The ratio of elasticity of supply of commodities A and B is 1 : 1.5. 20 percent fall in price of A results in a 40 percent fall in its supply. Calculate the percentage increase in supply of B if its price rises from Rs. 10 per unit to Rs. 11 per unit.

H.O.T.S.

1. State the causes 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. What is a supply schedule? Explain how does change in technology of producing a good affect the supply of that good.

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 diagrammatically the effect on total output when units of one factor is increased and all other inputs are held constant.

2. Complete the following table

Output (Units)	*Total Cost (Rs.)*	*Average Fired Cost*	*Average Variable Cost*	*Marginal Cost*
0	36			
1	–	–	–	18
2	–	–	–	14
3	–	–	16	–
4	–	–	–	24

3. What is producer's equilibrium? Explain the conditions of producer's equilibrium through the 'marginal cost and marginal revenue' approach. Use diagram.
4. State whether true or false. Give reasons.
   (a) Total product is the area under the marginal product curve.
   (b) When marginal product falls, average product always falls.
   (c) For the first unit of output 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 rises, average variable cost also starts rising.
   (c) Total product always increases whether there is increasing returns or Diminishing return to a factor.
6. State whether the following statements are true or false. Give reasons for your answer.
   (a) When total revenue is constant average revenue will also be constant.
   (b) Average variable cost can fall even when marginal cost is rising.
   (c) When marginal product falls, average product will also fall.

ANSWERS

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 output of a variable factor.
6. These factors of production which cannot be varied in short period e.g. machine, land.
7. When marginal product of a factor is zero, then total product will be maximum.
8. When total product falls, marginal product becomes negative.
9. Cost is the sum of explicit and implicit cost.
10. Those monetary payments by producer on factor and non factor payments is called explicit cost. Which are not owned by himself.
11. Total fixed cost because TFC remain constant at all level of output.
12. Implicit cost is the cost of self owned resources of producer.
13. Marginal cost is the net addition to total cost when one additional unit of output is produced.
14. It is because average fixed cost goes on falling with increase in output.
15. Revenue is the amount received from sale of output.
16. Marginal revenue falls twice the rate of average revenue.
17. Average revenue remains constant.
18. Marginal revenue is net additions to total revenue by sale of one additional unit of output.
19. Total revenue will be maximum.
20. Because AFC can never be zero at any level of output.
21. Producer's equilibrium is a situation where he gets maximum profit.
22.
    1. MR = MC
    2. Rising portion of Marginal cost curve intersects marginal revenue curve.
23. Normal profit is a situation where total cost of a firm is equal to total revenue.

24. At the point where TR = TC.

25. 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.

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

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

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

29.
    1. Number of firms
    2. Change in technology

30. 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.

31. Due to increase in price.

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

33. Decrease in price.

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

35. 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.

36. Because of positive relation between price and supply.

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

38. Perfectly elastic.

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

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

41. 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.

42. (i) Score goods

    (ii) Market period

43. Increase in price of a commodity.

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

H.O.T.S.

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

46. AFC can be calculated from TFC. Which remains constant at all level of output.

47. TFC remains constant at all levels of output.

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

49. Per unit price remains constant.

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

51. Inelastic.

52. Because profit margin of firm (producer) decreases.

53. Equal to unity elastic.

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

55. Supply of the commodity will fall.

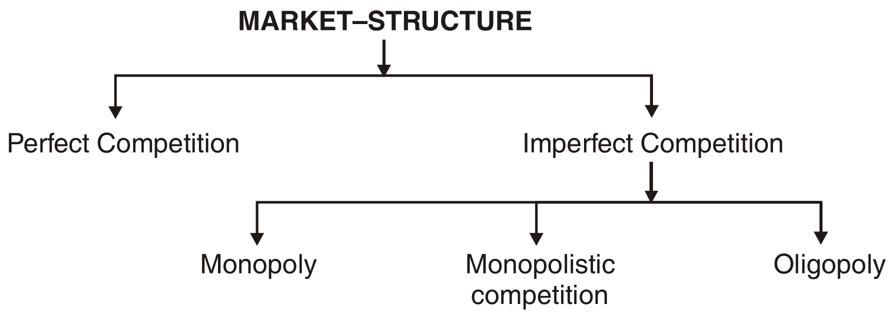
56. The supply curve will shift to the left side.

UNIT 4

FORMS OF MARKET & PRICE DETERMINATION

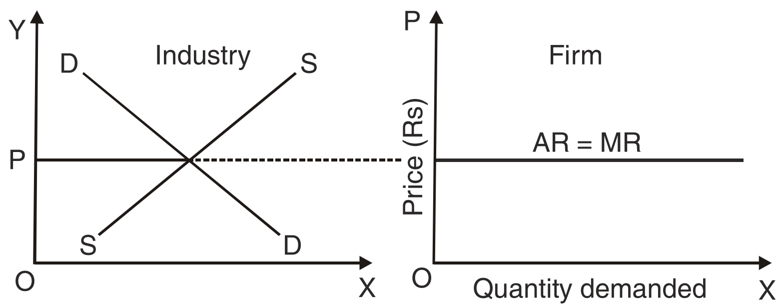
POINTS TO REMEMBER

- 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 entry of firms is not restricted but difficult.

- 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) Collusive oligopoly is that form of oligopoly in which all the firms determine price and quantity of output on the basis of cooperative behaviour.

  (ii) Non-collusive oligopoly is that form of oligopoly is which all the firms determine the price and quantity of output according to the action and reaction of the firms.

FORMS OF MARKET STRUCTURE

- **Perfect Competition**
- **Imperfect Competition (Non-competitive Markets)**
  - **Monopoly**
  - **Monopolistic Competition**
  - **Oligopoly**

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 selling and advertisement cost

Monopoly

- Single firm (seller
- No substitute Product
- Restriction on entry of firm
- Price discrimination
- AR curve down-ward 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 down-ward sloping
- Cut throat competition

Oligopoly

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

VERY SHORT ANSWER TYPE QUESTIONS (1 MARK)

1. Define market.
2. What do you mean by homogenous product?
3. How is price determined under perfect competition?
4. What is the common feature shared by perfect and monopolistic competition?
5. If the firms are earning abnormal profits, how will the number of firms in the industry change?
6. Define the monopoly market.
7. Under which market there is no difference between firm and industry?
8. What is normal profit?
9. Under which form of market the firm is price taker.
10. What is cartel?
11. What is the relationship between AR curve and demand curve in a monopoly market?
12. What do you mean by price discrimination?
13. Define oligopoly.
14. Define equilibrium price.
15. When does the situation of excess supply arise?
16. What will be the effect on equilibrium price when increase in demand is more than increase in supply?
17. Under what situation does the equilibrium price remains unaffected when there is simultaneous increase in demand and supply.

H.O.T.S.

18. What is the relation between average revenue curve and demand curve under monopolistic competition?

SHORT ANSWER TYPE QUESTIONS (3-4 MARKS)

1. Why is firm under perfect competition a price taker and under monopolistic competition is price maker. Explain?
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 the implication of large number of seller feature of perfect competition.
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. MR = AR in perfect competition but MR < AR in monopoly and monopolistic competition why?
12. In which condition 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. Explain equilibrium price. How is it determined? Explain with the help of schedule.

5. Explain how change in price of a substitute commodity would affect market equilibrium of the commodity X.

6. Market for a good is in equilibrium. There is 'increase' in supply of that good. Explain the chain of effects of this change. Use a numerical example.

   Distinguish between 'non-collusive' and 'collusive' oligopoly. Explain the following features of oligopoly:

   (i) Few firms (ii) Non-price competition

7. With the help of a diagram explain the effect of "decrease" in demand of a commodity on its equilibrium price and quantity.

8. 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. Market is a system with the help of it the buyers and seller of a commodity or service come to contact with each other.

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) Free entry and exit of firms

   (ii) Perfect mobility of factors.

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

6. It is a form of market under which there is a single seller, selling a product which does not have close substitutes.

7. Monopoly.

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

9. Perfect competition.

10. 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.

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

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

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

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

15. When market price is more than equilibrium price and market supply is more than market demand.

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

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

H.O.T.S.

18. Both AR and MR curves have negative slope.

HINTS

3-4 MARKS QUESTIONS

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

    Monopoly MR = MC

    Monopoly competition P > MR = 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, that could command a price in the market.
- **Consumption Goods :** Those goods which satisfy human wants directly.
- **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. 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 at market price.
- **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) Territory 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 aircraft 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 financial 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 accruing 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 financial 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 (Nominal National Income) :** 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.

- **Real National Income or 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	Income Method	Expenditure Method
↓	↓	↓
Net value added at factor cost	Sum of total factor Payments	Sum of total final expenditure
↓	↓	↓
Net value added by Primary sector + Net value added by secondary sector + Net value added by Tertiary sector + Net factor income from abroad.	Compensation of employees + Rent + Interest + profit + mixed income + Net factor income from abroad	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.

  OR

  = 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.

  OR

  = 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 estimated income of factor and transfer incomes from all sources to private sector within and outside the country.
- **Personal Income :** Personal Income is actual received 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 Consumption + Personal saving
or
Personal Disposable Income (PDI)

+ Direct personal tax
+ Misc fees and fines paid by households / Misc Receipts of the Govt.

Personal Income

+ Corporate profit tax
+ Undistributed profit

Private Income

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

Domestic Factor Income Accruing to Private Sector

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

Domestic Income (NDP_{FC})

+ NFIA

National Income (NNP_{FC})

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

Domestic Income (NDP_{FC})

↓ + NFIA

National Income (NNP_{FC})

↓
– Income from property and 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 Consumption + Personal Saving

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 whether the following are stock or flow :

   (i) Losses (ii) Capital

   (iii) Production (iv) Wealth

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 how distribution of Gross domestic product is a limitation in taking domestic product as an Index of welfare.

9. How can externalities be a limitation of using gross domestic product as an index of welfare.

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 whether 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. Calculate (i) gross domestic product at factor cost and (ii) net national disposable income : 6

Rs. (in Crores)

(i)	Net indirect tax	130
(ii)	Government final consumption expenditure	100
(iii)	Profit	90
(iv)	Net domestic capital formation	120
(v)	Change in stocks	(–) 10
(vi)	Private final consumption expenditure	500
(vii)	Net imports	20
(viii)	Net current transfers to abroad	10
(ix)	Net factor income to abroad	30
(x)	Gross domestic capital formation	160

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)	Dividends	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. (Crore)

(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. (Crore)

(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. (Crore)

(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. (Crore)

(i)	Personal tax	212
(ii)	Net national product at factor cost	2500
(iii)	Net indirect tax	180
(iv)	Domestic product accruing 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)	Dividends	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 accruing 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

1 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 (iii) Flow (iv) 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 transactions 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. (i) G.D.P.F.C. :

   VI + II – VII + X – I

   500 + 100 – 20 + 160 – 130

   760 – 150 = 610

   (ii) NNDI

   610 – (160 – 120) – 30 + 130 – 10

   740 – 80 = 660

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 $450 + 1200 = 1650$

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

4. GDP_{FC} :

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

$= 1600 + 200 + 300 + 400$

$= 2500$

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

$CFC = GDCF - NDCF\ (NFCF + \Delta S)$

$= 600 - (400 + 100) = 100$

$GDP_{FC} = 2500 + 100 = 2600$ Crore.

FIPA

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

$2800 = 2600 + NFIA + 240$

$NFIA = -40$

$NFIA = FIFA - FIPA$

$-40 = 50 - FIPA$

$FIPA = 50 + 40 = 90$ Crores

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

$= 1100 + 100 + 40 + 10 - 30 - 50 + 10 + 60 + 80$

$= 1320$ Crores

$GNDI = NNP_{FC} + (iii) + (v) - (i)$

$= 1320 + 90 + 70 - 10$

$= 1470$ 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

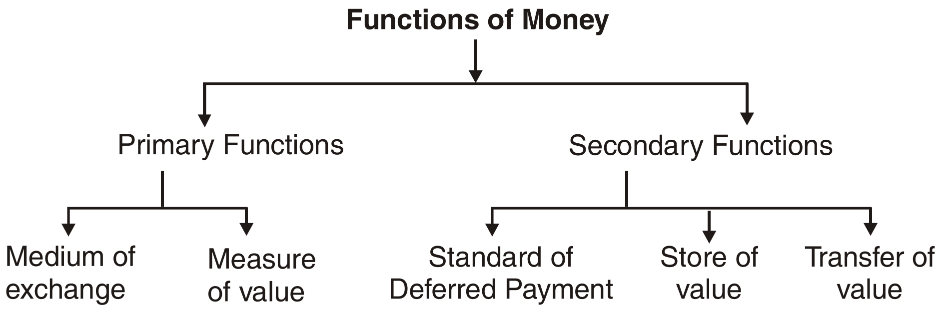
UNIT 7

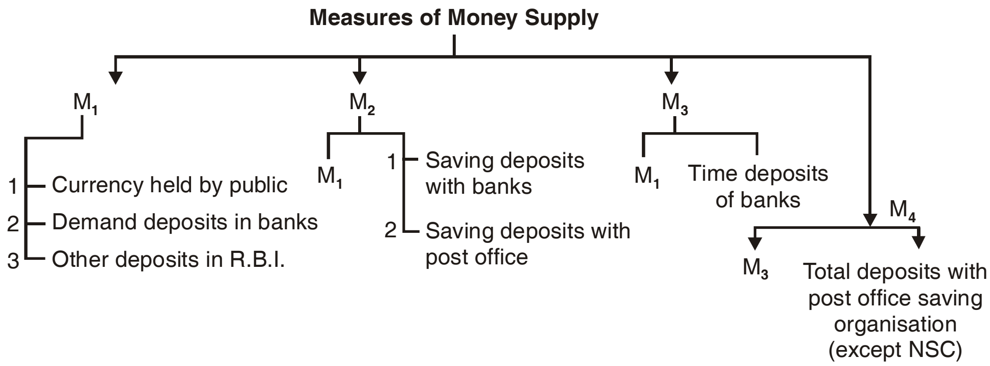
MONEY AND BANKING

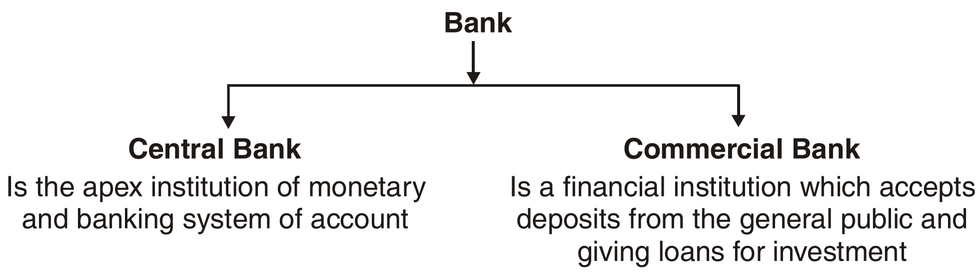
POINTS TO REMEMBER

- **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.
- **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.
  5. Lack of divisibility.
- **Supply of Money :** Total stock of money with the public at a given point of time.
- **Commercial Banks :** Commercial Banks is a financial institution who accepts deposits from the general public and provide loans facilities.

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







Functions of Central 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.

MONEY CREATION CREDIT CREATION BY COMMERCIAL BANKS

$K = \frac{1}{\gamma}$

K = Credit Multiplier

R = Cash resources ratio

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. What is bank rate?
5. State two primary functions of money.
6. What is meant by credit creation?
7. What is credit multiplier?
8. Write two functions of central banks.
9. What is cash reserve ratio (CRR)?
10. What is statutory liquidity ratio (SLR)?
11. What is demand deposits by banks?
12. State two monetary measures of credit control by central bank.
13. What are various money stock measures?

H.O.T.S.

14. What is margin requirement of loans.

SHORT ANSWER TYPE QUESTIONS (3-4 MARKS)

1. Explain the function of money as 'Unit of value'.
2. How does money solve the problem of double coincidence of wants?
3. Explain ' Store of value' function of money.
4. What are open market operations? What is their effect on availability of credit?
5. Explain the 'lender of last resort' function of central bank.
6. Distinguish between SLR and CRR. Explain the Role of SLR and CRR in credit control.
7. How does changes in Bank rate affect money creation by commercial Bank? Explain.
8. State the role of central Bank as a banker of the Government.
9. State any four functions of money.
10. Explain the 'Standard of deferred payment'.
11. How central bank is controller of credit?
12. Explain how does followings helps to control the credit creation.
    (i) Open market operation
    (ii) Margin requirement of loans

H.O.T.S.

13. What is meant by statutory liquidity ratio (SLR). State the effect of rise in rate of SLR on creation of credit.
14. Explain 'currency authority' and 'controller of credit' functions of central bank.
15. Explain effect of increase in bank rate on credit creation by commercial banks.

LONG ANSWER TYPE QUESTIONS (6 MARKS)

1. Define Central Bank. What are the functions of Central Bank?
2. Explain any four functions of money.
3. How does a central bank influence credit creation by commercial banks through 'open market operation' explain.
4. Explain the process of credit creation or money creation by commercial banks with the help of numerical example.

ANSWERS

1 MARK QUESTIONS

1. Any thing which is generally acceptable by the people as medium of exchange, measure of value, standard of deferred payment and performs the function of store of value.
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. Rate at which central bank lends to the commercial bank.
5. 1. Medium of Exchange
   2. Measure of value
6. Credit creation means power to expand demand deposits of Commercial Banks.
7. Credit multiplier measures, number of times deposits are multiplied as credit.

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

8. (i) Currency Authority

   (ii) Controller of money and credit

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

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

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

12. (i) Bank Rate policy.

    (ii) Open market operation

13. Following four measures of money stock are used.

    M1 = C + DD + OD

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

    M3 = M1 + Net time deposit of banks

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

HOTS

14. 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.

HINTS

3-4 MARKS QUESTIONS

11. Quantitative measures and qualitative measures of monetary policy.

13. Increase in SLR reduces credit availability.

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.

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

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

- 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.

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

- **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.

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

- **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

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

  $$1 = APC + APS \qquad \left[\because APC = \frac{C}{Y} \quad APS = \frac{S}{Y}\right]$$

  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 financial year.
- **Ex-Post Investment :** Ex-post investment refers to the actual or realised investment in an economy during a financial year.
- Equilibrium level of income is determined only at the point where AD = AS or S = I. But it cannot always be at full employment level also 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.
- 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 is less than required 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.

1 MARK QUESTIONS

1. Define aggregate demand.
2. Define aggregate supply.
3. What is meant by Ex-Post investment?
4. What is meant by average propensity to consume?
5. Define marginal propensity to consume.
6. What is autonomous consumption?
7. What is Ex-ante aggregate demand?
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 Ex-ante saving?
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. Define inflationary gap.

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?

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. Giving reasons, state whether the following statements are true or false :
    (i) When marginal propensity to consume is zero, the value of investment multiplier will also be zero.
    (ii) Value of average propensity to save can never be less than zero.
18. If national income is 50 crore and saving Rs. 5 crore, find out APC. When income rises to Rs. 60 crore and saving to Rs. 9 crore. What will be the APC and MPS.
19. An economy is in equilibrium. Its national income is Rs. 5000 and autonomous consumption expenditure is Rs. 500. What is the total consumption expenditure if MPC is 0.7?
20. Complete the following table :

Level of Income	***Savings***	***MPC***	***APC***	***APS***
0	– (80)	–	–	–
100	–	0.7	–	–
200	–	0.7	–	–
300	–	0.7	–	–
400	–	0.7	–	–

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 multiplier.

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 equili brium level of income?

30. State whether the following statement are true or false. Give reasons for your answer

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

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

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

    (i) When marginal propensity to consumer is zero, the value of investment multiplier will also be zero.

(ii) Value of average propensity to save can never be less than zero.

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.

16. Explain the step taken in derivation of the saving curve from the consumption curve use. Use diagram.

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. Ex-post investment refers to the actual or realised investment in an economy during a financial year.

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

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

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

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

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

7. Estimated demand of goods and service in an economy during a financial year.

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. Exante-saving refers to amount of saving which household intended to save at different level of income in an economy.

13. We know that

$$MPS + MPC = 1$$

MPS + MPC = 1 Give that MPS = MPC

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

$$K = 2$$

14. The minimum value of K = 1, when MPC = O

15. The maximum value of k = ∞ when MPC = 1

16. No, because consumption can never be zero even at zero level of income.

17. Investment multiplier measures the ratio of change in investment and change in 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. Inflationary gap refers the situation under which AD is excess than required AS at full employment equilibrium.

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 $\Delta Y = K \cdot \Delta I$

$= 2 \times 100$

$= 200$ Crore.

HINTS

3-4 MARKS QUESTIONS

18. (i) 200 Crore (ii) 400 Crore

19. (i) ΔI = 7000 Crore. (ii) ΔC = 6300 Crore.

20. APC = –, 1.5, 1.1, 0.96, 0.9

APS = –, (–), .5, (–) 0.1, .033, .1

S = –80, –50, –20, 10, 40

21. K = 4

$\Delta Y = 4 \times 125$

$= 500$ Crore.

22. Rs. 400

29. Rs. 70

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

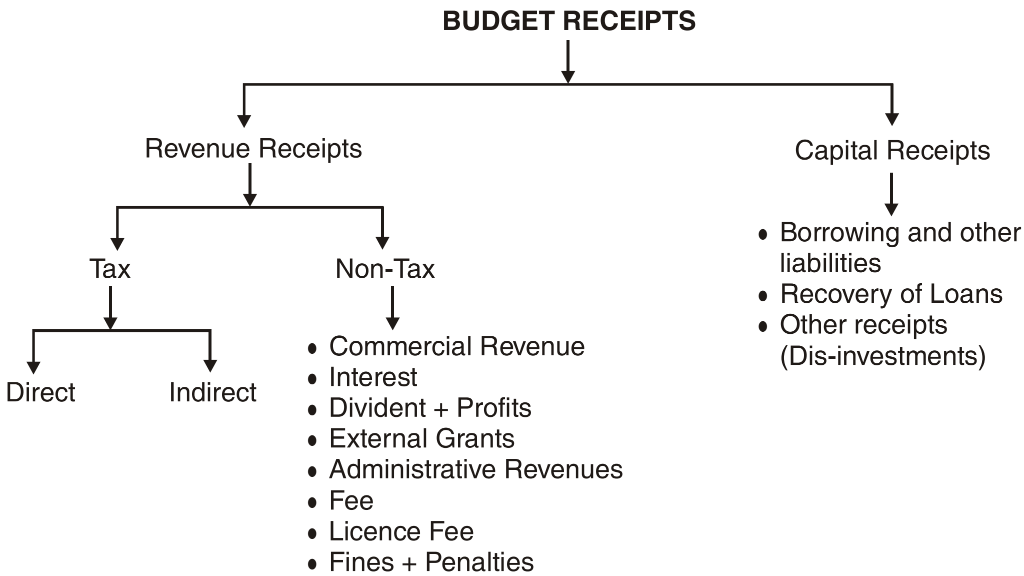
POINTS TO REMEMBER

- Budget is a financial statement showing the expected receipt and expenditure of Govt. for the coming fiscal or financial year.
- Main objectives of budget are :

  (i) Reallocation of resources.(ii) Redistribution 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.



- **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. Define Budget.
2. What is meant by non-tax receipts?
3. What are revenue receipts?
4. What are capital receipts?
5. Give two examples of non-tax revenue receipts.
6. What are the two sources of capital receipts?
7. Define revenue deficit.
8. Define fiscal deficit.
9. Why is repayment of loan a capital expenditure?
10. Why is recovery of loan treated a capital receipt?
11. What is a balanced budget.
12. Define capital expenditure.
13. 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.

14. What are Budget Receipts?
15. 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?

16. What is disinvestment?

17. What does zero primary deficit mean?

SHORT ANSWER TYPE QUESTIONS (3-4 MARKS)

1. Explain the allocation of resources objective of Govt. 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. Explain the "redistribution of income" objective of Govt. budget.

10. Explain the 'Economic stability' objective of Govt. budget.

HOTS (3-4 MARKS)

11. Under which situations deficit budget is beneficial for the economy.

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.

16. From the following data about a government budget find (a) revenue deficit, (b) fiscal deficit and (c) primary deficit.

		(Rs. arab)
(i)	Plan capital expenditure	120
(ii)	Revenue expenditure	100
(iii)	Non-plan capital expenditure	80
(iv)	Revenue receipts	70
(v)	Capital receipts net of borrowing	140
(vi)	Interest payments	30

17. Distinguish between :

    (i) Capital expenditure and Revenue expenditure

    (ii) Fiscal deficit and Primary deficit.

ANSWERS

1 MARK QUESTIONS

1. Budget is a financial statement showing the estimated receipts and estimated expenditure of the Govt. for coming fiscal year.
2. All the revenue receipt of Govt. other than tax receipts.
3. Revenue receipts are those receipts which neither creates liabilities for Govt. nor cause any reduction in assets.
4. Capital receipts are those receipts which either creates a liability or leads to reduction in assets.
5. Interest, Fee.
6. Borrowings, Recovery of loans.
7. When total revenue expenditure exceeds total revenue receipts.
8. When total expenditure exceeds total receipts excluding borrowing.
9. As it leads to reduction in liability.

10. As it leads to reduction in assets.

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

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

13. Fiscal Deficit = Primary Deficit + Interest Payment

    = 25,000 + 15,000

    = 40,000 Crore.

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

15. Rs. 50,000 Crore.

16. Disinvestment refers to withdrawal of existing investment.

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

HINTS

3-4 MARKS QUESTIONS

15. (i) Indirect tax

    (ii) Direct tax

    (iii) Indirect tax

    (iv) Direct tax

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.

- The components of current account do not cause a change in assets or Liabilities status of the residents of a country or its Government.

Components of Capital Account

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

- 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**
  - (i) Direct purchase by foreigners in domestic market.
  - (ii) Direct investment by foreigners in domestic market.
  - (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 MARK)

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?

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. What are the components of the current account of the balance of payment account.

5. Give difference between the autonomous and accommodating items included in BOP.

6. Distinguish between autonomous and accommodating transaction in the balance of payment account. Give an example each.

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 of currency on 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?

24. Distinguish between devaluation and depreciation of domestic currency.

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

    (i) Excess of foreign exchange receipts over foreign exchange payments on account of accommodating transactions equals deficit in the balance of payments.

    (ii) Export and import of machines are recorded in capital account of the balance of payments account.

ANSWERS

1 MARK 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) Direct 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 economy 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.

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. Define microeconomics. 1

2. What is market equilibrium? 1

3. Define market demand. 1

4. Give meaning of "Change in quantity supplied." 1

5. Define 'Revenue'. 1

6. Explain how a production possibility curve is affected when resources are inefficiently employed in an economy. 3

7. A consumer buys 17 units of a good at a price Rs. 10 per unit. When price falls to Rs. 8 per unit the consumer buys 23 units. Using the expenditure approach, what will you say about price elasticity of demand of the good? 3

8. Giving examples, distinguish between fixed cost and variable cost. 3

9. Draw Total Revenue Curve and Marginal Revenue Curve of a firm which is free to sell any quantity of the good at a given price. Explain. 3

   Note : The following question is for the Blind Candidates only, in lieu of Q.No. 9.

   Explain the relation between Total Revenue and Marginal Revenue of a firm which is free to sell any quantity it likes at a given price. 3

10. Explain the implication of the feature 'freedom of entry and exit to firms' under perfect competition.

Or

   Explain the implication of the feature 'large number of sellers' under perfect competition. 3

11. Derive the inverse relation between price of a good and its demand from the ingle commodity equilibrium condition 'Marginal utility = Price'. 4

12. Explain how a fall in prices of the related goods affects the demand for the given period. Give example. 4

13. What is supply schedule? Explain how does change in technology of producing a good effect the supply of that good.

Or

   Define supply curve. How does fall in price of an input affect the supply of the good using that input? 4

14. Given reasons, explain the behaviour of total product under the Law of Variable Proportions. Use diagram. 6

   Note : The following question is for the Blind Candidates only, in lieu of Q.No. 14.

   Give reasons, explain the behaviour of total product under the law of variable proportions. Use a schedule. 6

15. Explain the conditions of consumer's equilibrium with the help of indifference curve analysis. 6

16. Market for a good is in equilibrium. Supply of the good 'decreases'. Explain the chain of effect of this change. Use diagram.

Or

Distinguish between 'cooperative' and 'non-cooperative' oligopoly. Explain the following feature of oligopoly: 6

(i) Barriers to the entry of firms

(ii) Non-price competition

Note : The following question is for the Blind Candidates only, in lieu of Q.No. 16.

Market for a good is in equilibrium. Supply of the good 'decreases'. Explain the chain of effects of this change. Use numerical example. 6

SECTION B

17. Define 'capital goods'. 1

18. Define 'real' gross domestic product. 1

19. Define Legal Reserve Ratio. 1

20. What are demand deposits? 1

21. What is balance of payments? 1

22. What are components of the current account of the balance of payments account? 3

23. Explain how 'externalities' are a limitation of taking gross domestic product as an index of welfare. 3

24. An economy is in equilibrium. Its consumption function is C = 300 + 0.8Y where C is consumption expenditure and Y is income and investment is Rs. 700. Find national income. 3

25. Explain with the help of examples, the distinction between direct tax and indirect tax. 3

26. When price of a foreign currency rises its supply also rises. Explain, why.

Or

When price of a foreign currency falls its demand rises. Explain, why. 3

27. Explain the 'economy stability' objective of a government budget.

Or

Explain the 'allocation of resources' objective of a government budget. 4

28. From the following data about a government budget find (a) revenue deficit, (b) fiscal deficit and (c) primary deficit : 4

(i)	Plan capital expenditure	20
(ii)	Revenue expenditure	100
(iii)	Non-plan capital expenditure	80
(iv)	Revenue receipts	140
(v)	Capital receipts net of borrowing	30
(vi)	Interest payments	30

29. Giving reasons, explain the treatment assigned to the following while estimating national income : 4

(i) Payment of income tax by a firm

(ii) Festival gift to employees

30. Explain the role of the following in correcting deficient demand in an economy :

(i) Government expenditure

(ii) Legal reserve

Or

Explain the role of the following in correcting inflationary gap in an economy: 6

(i) Open market operations

(ii) Government expenditure

31. How do commercial banks create credit? 6

32. Calculate National Income and Personal Disposable Income from the following : 6

		(Rs. Crore)
(i)	Personal tax	150
(ii)	Net imports	(–) 10
(iii)	Private final consumption expenditure	700
(iv)	Private income	600
(v)	Undistributed profit	20
(vi)	Net domestic capital formation	120
(vii)	Government final consumption expenditure	200
(viii)	Net factor income to abroad	(–) 5
(ix)	Corporation tax	100
(x)	Net indirect tax	105

32. Calculate 'Net National Product at Factor Cost' and 'Gross National Disposable Income' from the following : 6

		(Rs. Crore)
(i)	Profits	200
(ii)	Net current transfers to abroad	(–) 10
(iii)	Royalty	10
(iv)	Wages and salaries	600
(v)	Consumption of fixed capital	60
(vi)	National debt interest	8
(vii)	Interest paid by production units	120
(viii)	Social security contributions by employers	100
(ix)	Net factor income to abroad	(–) 20
(x)	Rent	50
(xi)	Net indirect tax	70

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 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. Define a budget line. 1

2. What is meant by inferior good in economics? 1

3. In which market form can a firm not influence the price of the product? 1

4. Define monopoly. 1

5. What can you say about the number of buyers and sellers under monopolistic competition? 1

6. Explain the effect of the following on the price elasticity of demand of a commodity : 3

   (i) Number of substitutes.

   (ii) Nature of commodity

7. Explain any two causes of 'increase' in demand of a commodity.

Or

Explain the inverse relationship between price and quantity demand of a commodity. 3

8. A firm's average fixed cost, when it produces 2 units, is Rs. 30. Its average total cost schedule is given below. Calculate its marginal cost and average variable cost at each level of output. 3

Output (units)	1	2	3
Average Total Cost (Rs.)	80	48	40

9. Total revenue is Rs. 400 when the price of the commodity is Rs. 2 per unit. When price rises to Rs. 3 per unit, the quantity supplied is 300 units. Calculate the price elasticity of supply. 3

10. Why is the number of firms small in an oligopoly market? Explain. 3

11. Explain the problem of 'how to produce'.

Or

Explain the properties of PPC. 4

12. When price of a commodity falls by Re. 1 per unit, its quantity demanded rises by 3 units. Its price elasticity of demand is (–) 2. Calculate its quantity demanded if the price before the change was Rs. 10 per unit. 4

13. How does the equilibrium price of a 'normal' commodity change when income of its buyers falls? Explain the chain of effects. 4

14. State whether the following statements are true or false. Give reasons for your answer : 6

    (i) When marginal revenue is constant and not equal to zero, then total revenue will also be constant.

    (ii) As soon as marginal cost starts rising, average variable cost also starts rising.

    (iii) Total product always increases whether there is increasing returns or diminishing returns to a factor.

15. What are the conditions of consumer's equilibrium under the indifference curve approach? What changes will take place if the conditions are not fulfilled to reach equilibrium? 6

16. From the following schedule find out the level of output at which the producer is in equilibrium, using marginal cost and marginal revenue approach. Give reasons for your answer.

Price per unit (Rs.)	*Output (Rs.)*	*Total Cost (Rs.)*
8	1	6
7	2	11
6	3	15
5	4	18
4	5	23

Or

Explain the law of returns to a factor with the help of total product and marginal product schedule. 6

SECTION B

17. Given the meaning of money. 1

18. What is meant by revenue deficit? 1

19. What is ex-ante aggregate demand? 1

20. Give the meaning of inflationary gap. 1

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

22. Distinguish between real and nominal gross domestic product.

Or

Giving reasons, classify the following into intermediate and final goods: 3

(i) Machines purchased by a dealer of machines.

(ii) A car purchased by a household.

23. Explain the 'banker to the government' function of the central bank. 3

24. Explain the allocation function of a government budget. 3

25. Distinguish between autonomous and accommodating transactions of balance of payments account. 3

26. Giving two examples, explain why there is a rise in demand for a foreign currency when its price falls. 3

27. How does a commercial bank create money?

Or

Explain how do 'open market operations' by the central bank affect money creation by commercial banks. 4

28. Giving reasons, state whether the following statements are true or false: 4

(i) When marginal propensity to consumer is zero, the value of investment multiplier will also be zero.

(ii Value of average propensity to save can never be less than zero.

29. Distinguish between : 4

(i) Capital expenditure and Revenue expenditure.

(ii) Fiscal deficit and Primary deficit

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

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

(ii) Profits earned by a branch of an Indian Bank in Canada.

(iii) Scholarship given to Indian students studying in India by a foreign company.

Or

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

31. In an economy the equilibrium level of income is Rs. 12,000 crore. 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. 20,000 crore. 6

32. Calculate (a) Gross domestic product at market price, and (b) Factor income from abroad from the following data : (3+3) = 6

(Rs. in crores)

(i)	Profits	500
(ii)	Exports	40
(iii)	Compensation of employees	1,500
(iv)	Gross national product at factor cost	2,800
(v)	Net current transfers from rest of the world	90
(vi)	Rent	300
(vii)	Interest	400
(viii)	Factor income to abroad	120
(ix)	Net indirect taxes	250
(x)	Net domestic capital formation	650
(xi)	Gross fixed capital formation	700
(xii)	Change in stock	50