



2023-24 II PUC ANNUAL EXAMINATION

ECONOMICS

PART-A

I. Choose the correct answer (Each question carries 1 mark). (5x1=5)

- 1) B) Consumer behavior
- 2) A) Marginal revenue
- 3) C) Price floor
- 4) B) Depreciation
- 5) B) Autonomous Consumption

II. Fill in the blanks by choosing correct answer from the bracket. (5x1=5)

(Each question Carries 1 mark.)

- 6) Problem of choice
- 7) Perfect competition
- 8) Export
- 9) RBI
- 10) 1st April to 31st march

III. Match the following (Each question Carries 1 mark) (5x1=5)

- | | |
|------------------------|-------------------------------|
| 11) SMC | C) $\Delta TC / \Delta Q$ |
| 12) Normal Profit | A) zero profit |
| 13) Domestic Service | B) Non-monetary exchange |
| 14) Money | f) Medium of exchange |
| 15) Balance of payment | D) Trade in goods and service |

IV. Answer the following questions in a sentence or a word (5x1=5)

(Each question carries 1 mark)

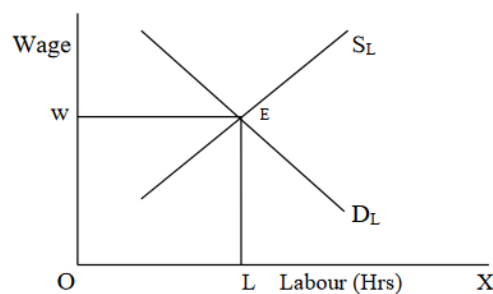
- 16) Marginal rate of substitution
- 17) Market equilibrium is a situation where total demand will equal to total supply in the market
- 18) By deducting Depreciating value of capital goods from Gross value added
- 19) $\Delta C / \Delta Y = MPC$
- 20) The people who enjoy government services without paying the tax is called free riders

PART-B

V. Answer any Six of the following in 4 sentences each
(Each question carries 2 marks)

(6x2=12)

- 21) The goods which are available for cheaper price are called inferior goods. When the income of the consumer increases then demand for these goods decreases and when the income of the consumer decreases demand for these goods decreases
- 22) The two approaches which explain consumer behavior are:
- Cardinal Utility Analysis – Law of Diminishing Marginal Utility
 - Ordinal Utility Analysis – Indifference Curve analysis
- 23) Two determinants of firms supply curve are
- Input price
 - Technological progress
- 24) Equilibrium price is the price at which equilibrium is reached in the market.
The equilibrium quantity is defined as the quantity which is bought and sold at equilibrium price. Therefore price and quantity will be at equilibrium when
 $Q^d(p^*) = Q^s(p^*)$
 p^* denotes the equilibrium price and $Q^d(p^*)$ and $Q^s(p^*)$ denote the market demand and market supply respectively.
- 25) The wage rate is determined at the point where the labor demand and supply curves intersect. This is shown in the following diagram:



In the above diagram, hours of labor is measured in X axis and Wage is measured in Y axis. S_L is labor supply curve and D_L Labor demand curve. With an upward sloping supply curve and downward sloping demand curve, the equilibrium wage rate is determined at the point where these two curves intersect (point E). That means, the wage rate is determined at that point where the labor that the households wish to supply is equal to the labor that the firms wish to hire.

26) Factors of Production and rewards

Land – rent

Labor – wage

Capital – interest
 Entrepreneur – profit

27)

Nominal GDP	Real GDP
It is the value of GDP at current prevailing prices.	It is evaluated at constant set of prices i.e., by keeping base year's price index.
It is not reliable	It is reliable
It does not give real picture of economic development of a country.	It gives real picture of economic development of a country.

28) Investment multiplier is the ratio of the total increment in equilibrium value of final goods output to the initial increment in autonomous expenditure.

formula is Investment Multiplier= $\Delta Y/\Delta A = 1/1-c$.

Where ΔY is the total increment in final goods output, ΔA is initial increment in autonomous expenditure; c is size of the multiplier

29) The distinction between surplus budget and deficit budget is as follows:

Surplus Budget	Deficit Budget
Here, the tax collection of Government exceeds its required expenditure.	Here, the Government's expenditure exceeds its revenue.
It generally made by developed countries.	It is generally made by developing countries.

30) People demand foreign exchange rate because of the following reasons:

- To purchase goods and services from other countries.
- To send gifts abroad
- To purchase financial assets abroad.

PART-C

VI. Answer any five of the following question in 12 sentences each.

(5x4=20)

(Each question carries 4 marks)

31)

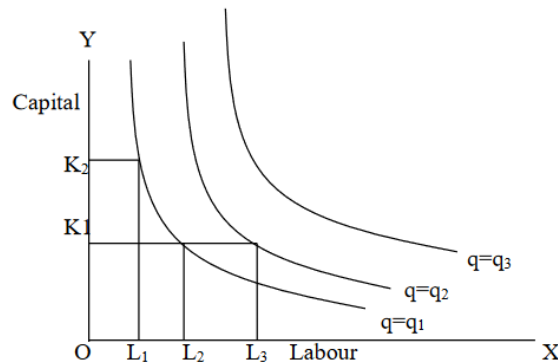
A market economy also known as capitalistic economy is that economy in which the economic decisions are undertaken on the basis of market mechanism by the private entrepreneurs. It functions on demand and supply conditions. In USA, Japan, Australia, UK and other countries we can see Market Economic systems. In market economy, private individuals own the factors of production. Here, the profit is the main goal of business. There is least intervention of Government. Price mechanism plays a major role in market economy. It is a balancing wheel of the market mechanism. Prices coordinate decisions of the producers and consumers. The price is determined by demand and supply in the market. No individual organization or Government is responsible for the production and distribution or pricing of goods. All depend on market mechanism. Regarding basic problems of an economy, the problem of what to produce is solved on the basis of demand and profit. The producers produce those products which bring more income.

The problem - how the goods are to be produced is determined by the competition among different entrepreneurs. The select least cost combination of technology so that they can get more returns with less cost. In market economy, the problem of whom to produce is decided on the basis of purchasing power of consumers. The producers produce commodities to the rich as they can afford to pay more but poorer sections of the society are neglected. In Market economy, profits and losses play a predominant role in growth and development of every producer.

32)

Substitute goods	Complementary goods
<p>i. These are alternative goods available to satisfy our wants.</p> <p>ii. If the price of a product increases, the demand for its substitute also increases.</p> <p>iii. Example for substitute goods are Tea and Coffee, Colgate and Pepsodent.</p> <p>iv. Here the demand curve shifts to the right in case of price rise.</p> <p>v. Price and demand move in same direction.</p>	<p>i. These are the goods which are consumed together.</p> <p>ii. If the price of a product increases, the demand for its complementary good decreases.</p> <p>iii. Example for complementary goods are Pen and Ink, Shoes and socks etc.</p> <p>iv. Here the demand curve shifts to left in case of price rise.</p> <p>v. Price and demand move in opposite directions.</p>

33) An isoquant is the set of all possible combinations of the two inputs that yield the same maximum possible level of output. Each isoquant represents a particular level of output and is labelled with that amount of output. It is just an alternative way of representing the production function. The concept of isoquant can be explained with the help of following diagram:



The above diagram generalizes the concept of isoquant. In the above diagram, labour is measured in OX axis and Capital is measured in OY axis. There are 3 isoquants for the three output levels viz., $q=q_1$, $q=q_2$ and $q=q_3$. Two input combinations (L_1, K_2) and (L_2, K_1) give us the same level of output q_1 . If we fix capital at K_1 and increase labor to L_3 , output increases and we reach a higher isoquant $q=q_2$. When Marginal products are positive, with greater amount of one input, the same level of output can be produced only using lesser amount of the other. Therefore, isoquants curves slope downwards from left to right (negatively sloped).

34)

Price Ceiling: The Government imposed upper limit on the price of a good or service is called price ceiling. Price ceiling is generally imposed on necessary items like wheat, rice, kerosene, sugar and it is fixed below the market determined price. It is fixed below the market price because, at market determined price some sections of the population will not be able to afford these goods. Here, though the intention of the Government is to help the consumers, it could end up creating shortage of products. In order to solve the scarcity of products, the Government may issue ration coupons to the consumers so that no individual can buy more than a certain amount of a product. This stipulated amount of a product sold through ration shops are called Fair Price Shops.

35) Ans: The micro and macro economics are distinguished on the following grounds:

Scope:

- Micro Economics study in individual units so its scope is narrow.
- Macro Economics study in aggregates, so its scope is wider.

Method of study:

- The Micro Economics follows slicing method as it studies individual unit.

- The Macro Economics follows lumping method as it studies in aggregates.

Economic Agents:

- In Micro Economics, each individual economic agent thinks about its own interest and welfare.
- In Macro Economics, economic agents are different among individual economic agents and their goal is to get maximum welfare of a country.

Equilibrium:

- Micro economics studies the partial equilibrium in the country.
- Macro Economics studies the general equilibrium in the economy.

Domain:

- Micro economics consists of theories like consumer's behavior, production and cost, Rent, Wages, Interest, etc.
- Macro economics comprises of theory of income, output and employment, Consumption Function, Investment function, Inflation

36. Write a note on externalities.

Ans: An externality is a cost or benefit conferred upon second or third parties as a result of acts of individual production and consumption. But the cost or benefit of an externality cannot be measured in money terms because it is not included in market activities.

In other words, Externalities refer to the benefits or harms a firm or an individual causes to another for which they are not paid or penalized. They do not have any market in which they can be bought and sold. There are two types of externalities viz.,

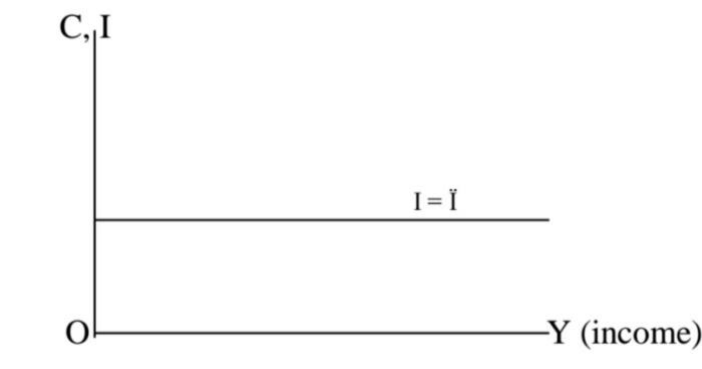
- Positive Externalities and
- Negative Externalities.

For example, let us imagine that there is chemical fertilizer industry. It produces the chemical fertilizers required for agriculture. The output of the industry is taken for counting GDP of an economy. This is positive externality.

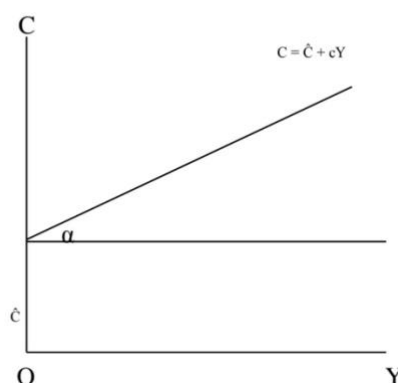
While carrying out the production the chemical fertilizer industry may also be polluting the nearby river. This may cause harm to the people who use the water of the river. Hence their health will be affected. Pollution also may kill fish and other organisms of the river. As a result, the fishermen of the river may lose their livelihood. Such harmful effects that the industry is inflicting on others, for which it will not bear any cost are called negative externalities.

37.) Money also acts as a convenient unit of account. The value of all goods and services can be expressed in monetary units. When we say that the value of a certain wristwatch is Rs 500 we mean that the wristwatch can be exchanged for 500 units of money, where a unit of money is rupee in this case. If the price of a pencil is Rs 2 and that of a pen is Rs 10 we can calculate the relative price of a pen with respect to a pencil, viz. a pen is worth $10 \div 2 = 5$ pencils. The same notion can be used to calculate the value of $10 \div 2 = 5$ pencils. The same notion can be used to calculate the value of money itself with respect to other commodities. In the above example, a rupee is worth $1 \div 2 = 0.5$ pencil or $1 \div 10 = 0.1$ pen. Thus, if prices of all commodities increase in terms of money which, in other words, can be regarded as a general increase in the price level, the value of money in terms of any commodity must have decreased – in the sense that a unit of money can now purchase less of any commodity. We call it a deterioration in the purchasing power of money.

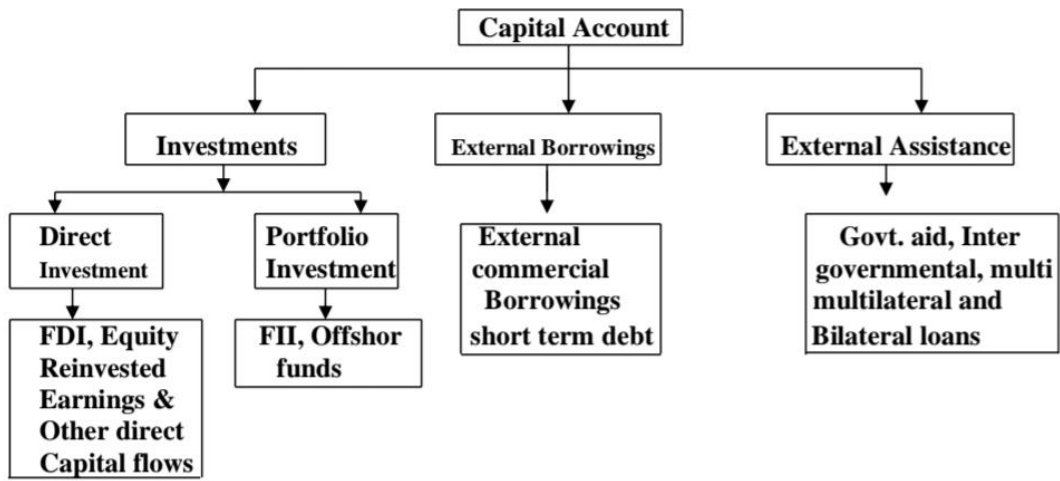
38) Ans: In a two sector model, there are two sources of final demand. The first is consumption and the second is investment. The investment function was shown as $I = \bar{I}$. Graphically, this is shown as a horizontal line at a height equal to \bar{I} above the horizontal axis.



In this model, I is autonomous which means, it is the same no matter whatever is the level of income. The consumers demand can be expressed by the equation $C = \hat{C} + cY$, where \hat{C} is autonomous expenditure and c is the marginal propensity to consume. The consumption function can be shown as follows:



39)



PART-D

VII. Answer any three of the following question in 20 sentences each.

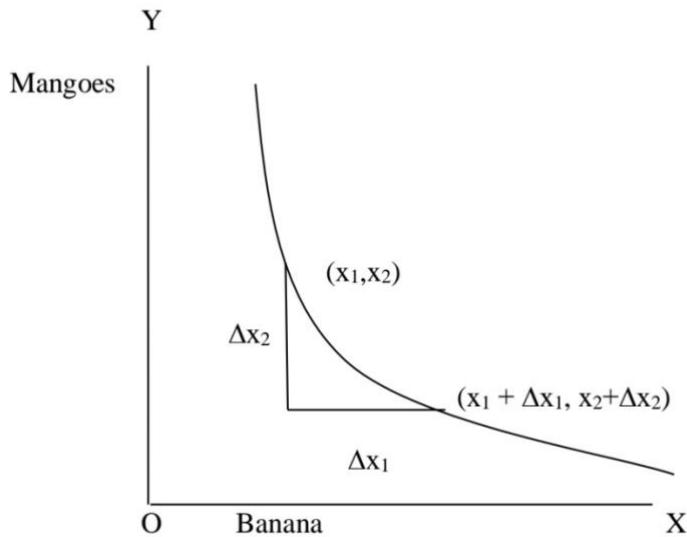
(3x6=18)

(Each question carries 6 marks)

40)

Ans: The main features of Indifference curves are as follows:

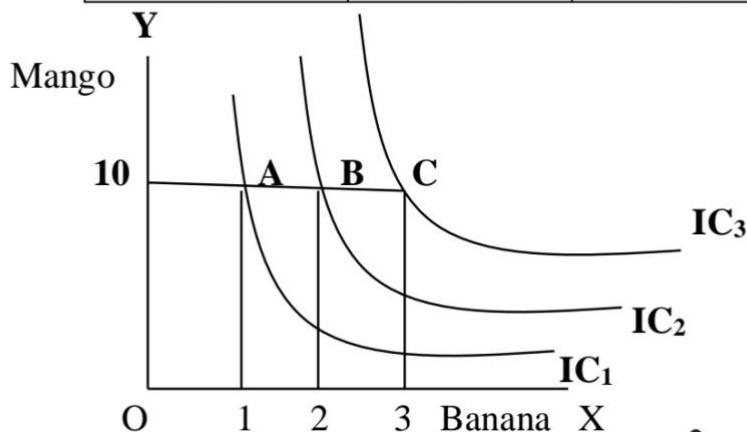
a) Indifference curve slopes downwards from left to right: An indifference curve slopes downwards from left to right because, the consumer in order to have more of one product, he has to forego some units of other product. This can be explained with the help of diagram. Thus, according to above diagram, as long as the consumer is on the same indifference curve, an increase in bananas must be compensated by a fall in quantity of mangoes. That means, an increase in the amount of bananas along the indifference curve is associated with a decrease in the amount of mangoes.



b) Higher indifference curve gives greater level of utility:

As long as marginal utility of a commodity is positive, a consumer always prefers more of that commodity to increase his level of satisfaction. This can be explained with the help of table and a diagram:

Combination	Banana	Mango
A	1	10
B	2	10
C	3	10

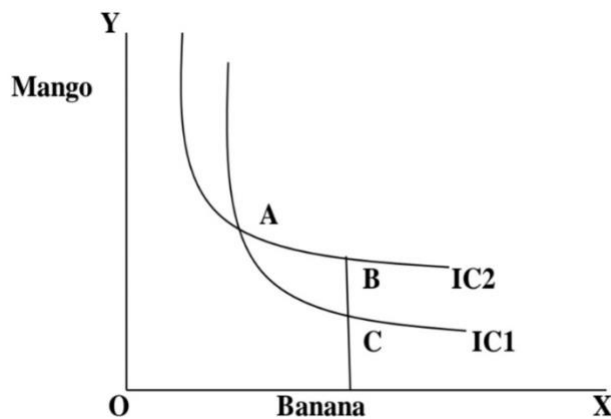


Let us consider the different combinations of two goods bananas and mangoes A, B and C in the above table and diagram. All the three combinations consist of same quantity of mangoes but different quantities of bananas. As combination B has more bananas than A, B will provide the consumer higher level of satisfaction than A.

Therefore, B will lie on higher indifference curve. Similarly, C has more bananas than B and therefore C will provide higher level of satisfaction than B and also lie on higher indifference curve than B. Thus higher indifference curves give greater level of utility.

c) Two indifference curves never intersect each other:

If the two indifference curves intersect each other, they will give conflicting results. This can be explained with the help of diagram. In the above diagram the two indifference curves have intersected with each other. As points A and B lie on IC2, utilities derived from A and B are same. Similarly, as points A and C lie on the same indifference curve IC1, the utilities are same. From this, it follows that utility from point B and C are same. But this is clearly an absurd result as on B, the consumer gets a greater number of mangoes with the same quantity of bananas. So the consumer is better off at point B than at Point C. Thus, it is clear that intersecting indifference curves will lead to conflicting results. Thus, two indifference curves cannot intersect each other.



41)

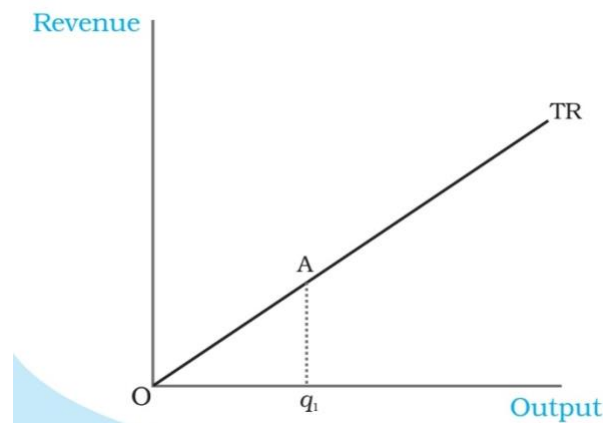
A firm earns revenue by selling the good that it produces in the market. Let the market price of a unit of the good be p . Let q be the quantity of the good produced, and therefore sold, by the firm at price p . Then, total revenue (TR) of the firm is defined as the market price of the good (p) multiplied by the firm's output (q). Hence,

$$TR = p \times q$$

To make matters concrete, consider the following numerical example. Let the market for candles be perfectly competitive and let the market price of a box of candles be Rs 10. For a candle manufacturer Table above shows how total revenue is related to output. Notice that when no box is sold, TR is equal to zero; if one box of candles is sold, TR is equal to $1 \times \text{Rs } 10 = \text{Rs } 10$; if two boxes of candles are produced, TR is equal to $2 \times \text{Rs } 10 = \text{Rs } 20$; and so on.

We can depict how the total revenue changes as the quantity sold changes through a Total Revenue Curve which is given below

Boxes sold	TR (in Rs)
0	0
1	10
2	20
3	30
4	40
5	50

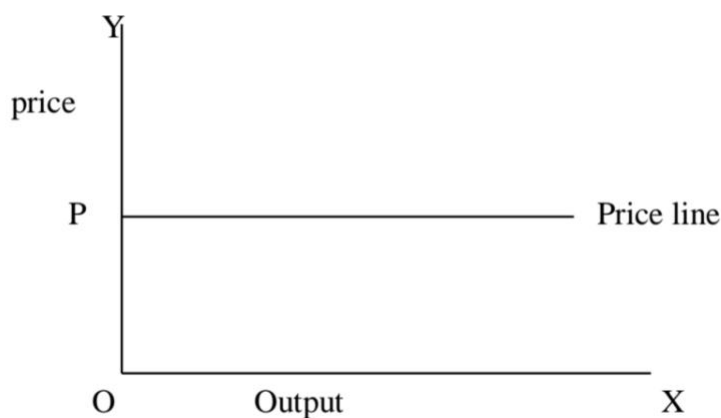


Average Revenue: It refers to the revenue per unit of output sold. It is obtained by dividing the total revenue by the number of units of output sold. The average revenue is defined as total revenue per unit of output.

$$\text{So, } AR = \frac{TR}{Q} = p \times q = pq$$

where, AR is Average Revenue, TR is Total Revenue and Q is quantities sold. That means, for a price taking firm, average revenue equals the market price. Under perfect competition, the AR will be equal to the market price. This is because, in perfect competitive market, the seller sells his product at the same price which is prevailing in the market. If the seller sells at low price, he incurs losses or if he increases the price, he loses customers. This can be represented in diagram:

The average revenue for different values of firm's output is shown in Y and X axis respectively. Since the market price is fixed at P, we obtain a horizontal straight line that cuts the Y axis at a height equal to P. This horizontal straight line is called the price line. It is also firm's AR curve under Perfect competition. The AR curve of a firm is also the demand curve of the customers, because the price paid by the consumer for each unit is the average revenue from the seller's point of view.



42)

The macroeconomic identities are as follows:

a) **Gross Domestic Product (GDP):** Gross Domestic Product measures the aggregate production of final goods and services taking place within the domestic economy during a year. But the whole of it may not accrue to the citizens of the country. It includes GDP at Market prices and GDP at Factor cost. GDP at market price is the market value of all final goods and services produced within a domestic territory of a country measured in a year. Here everything is valued at market prices. It is obtained as follows:

$$\text{GDPMP} = C + I + G + X - M$$

GDP at factor cost is gross domestic product at market prices minus net indirect taxes. It measures money value of output produced by the firms within the domestic boundaries of a country in a year.

$$\text{GDPFC} = \text{GDPMP} - \text{NIT}$$

b) **Gross National Product:** It refers to all the economic output produced by a nation's normal residents, whether they are located within the national boundary or abroad. It is defined as GDP plus factor income earned by the

domestic factors of production employed in the rest of the world minus factor income earned by the factors of production of the rest of the world employed in the domestic economy. Therefore,
 $GNP = GDP + \text{Net factor income from abroad}$

c) Net National Product (NNP): A part of the capital gets consumed during the year due to wear and tear. This wear and tear is called depreciation. If we deduct depreciation from GNP the measure of aggregate income that we obtain is called Net National Product. We get the value of NNP evaluated at market prices. So,
 $NNP = GNP - \text{Depreciation}$

d) Net National Product (NNP) at factor cost: The NNP at factor is the sum of income earned by all factors in the production in the form of wages, profits, rent and interest etc., belong to a country during a year. It is also known as National income. We need to add subsidies to NNP and deduct indirect taxes from NNP to obtain NNP at factor cost.
 $NNPFC = \text{NNP at market prices} - \text{indirect taxes} + \text{subsidies.}$

e) Personal Income (PI): It refers to the part of National income (NI) which is received by households. It is obtained as follows:
 $PI = NI - \text{Undistributed Profits} - \text{Net interest payments made by the households} - \text{Corporate tax} + \text{Transfer payments to the households from the Government and firms.}$

f) Personal Disposable Income (PDI): If we deduct the personal tax payments (income tax) and Non-tax payments (fines, fees) from Personal Income, we get PDI. Therefore,
 $PDI = PI - \text{Personal tax payments} - \text{Non-tax payments.}$

43) : The open market operations as one of the tools of RBI to control money supply, refers to buying and selling of bonds issued by the Government in the open market. This purchase and sale is entrusted to the RBI on behalf of the Government. When RBI buys a Government bond in the open market, it pays for it by giving a cheque. This cheque increases the total amount of reserves in the economy and thus increases the money supply. Similarly, selling of a bond by RBI to private individuals or institutions leads to reduction in quantity of reserves and money supply. There are two types of open market operations. They are as follows:

a) Outright: Outright open market operations are permanent in nature. When the RBI buys the securities, it is without any promise to sell them later. Similarly, when the RBI sells these securities, it is without any promise to buy them later. As a result, the injection/absorption of the money is of permanent nature.

b) Repo: This is another type of operation in which the RBI buys the security with agreement of purchase on particular date and price. This is called repo. The interest rate at which the money is lent in this way is called repo rate. Similarly, instead of outright sale of securities the RBI may sell the securities through an agreement which as a specification about the date and price at which it will be repurchased. This type of agreement is called reverse repo. The rate at which the money is withdrawn in this manner is called the reverse repo rate. The RBI conducts repo and reverse repo operations at various maturities like overnight, 7 days, 14 days etc. These types of operations have now become the main tool of monetary policy of the RBI.

44)

Ans: The public expenditure can be classified as follows:

- Revenue Expenditure
- Capital Expenditure

Revenue Expenditure: It is the expenditure of government spent on the purposes other than the creation of physical or financial assets. It is incurred for the normal functioning of the government departments and various services, interest payments, grants given to state governments and other parties. The revenue expenditure consists of the following:

- Plan Revenue expenditure; and
- Non-plan revenue expenditure.

The plan revenue expenditure is related to central plans and central assistance for state and union territory plans. The non plan revenue expenditure is the more important component of revenue expenditure. It covers a vast range of general, economic and social services of the government. The main items of non-plan expenditure are interest payments, defence services, subsidies, salaries and pensions.

Capital Expenditure: The capital expenditure of the government includes the expenditures which result in creation of physical or financial assets or reduction in financial liabilities. This includes expenditure on the acquisition of land, building, machinery, equipment, investment in shares, and loans and advances by the central government to

state and union territory governments, public sector undertakings (PSUs) and other parties.

The capital expenditure is categorized as follows:

- > Plan capital expenditure and
- > Non-plan capital expenditure

The plan capital expenditure is related to central plan and central assistance for state and union territory plans.

The non-plan capital expenditure covers various general, social and economic services provided by the government.

PART-E

VIII. Answer any two of the following projects and assignment-oriented questions

(Each question carries 5 marks)

(2x5=10)

45)

- a) 4 Bananas
- b) 2 Mangoes
- c) Slope of the budget line is downward sloping
- d) Yes, the bundles on the budget line are equal to the consumer's income.
- e) True. If we want to have more of banana we have to give up mangoes.

46)

FACTOR L	TP L	MPL	APL
0	0	0	0
1	10	10	10
2	24	14	12
3	40	16	13.33
4	50	10	12.5
5	56	6	11.2
6	57	1	9.5

47)

Countries	Currency
USA	US dollars
UK	British Pound
Germany	Euro
Japan Japanese	Yen
China	Chinese yuan
Argentina	Argentine peso
UAE	UAE dirham
Bangladesh.	Bangladeshi taka
Russia	Russian Ruble
