



CREATIVE EDUCATION FOUNDATION, KARKALA

SECOND PU ANNUAL EXAMINATION MARCH- 2025

ECONOMICS DETAILED SOLUTION

PART - A

I. Answer the following questions in a word or sentence

1. c) Ranks
2. b) 225
3. a) 1929
4. b) Investment
5. b) Output market linkage

II. Fill in the blanks:

6. Government
7. Perfect competition
8. Product
9. RBI
10. Financial

III. Match the following:

- | | |
|--------------------------------------|-----------------------------|
| 11) | |
| a) Normative Economics | vi) Evaluation of Mechanism |
| b) Wage Rate | i) VMPL |
| c) Domestic Service | v) Non-Monetary Exchange |
| d) M ₃ and M ₄ | ii) Broad Money |
| e) Raw material | iii) Intermediate goods |

IV. Answer in a sentence or word:

12. **Example of market economy:** USA

13. **Market demand curve:**

$$\begin{aligned}d(P) &= (20 - P) + (15 - P) \\ &= 35 - 2P \\ &= (20 - P) + (15 - P) \\ &= 35 - 2P\end{aligned}$$

14. **CPI – Expand:**

Consumer Price Index

15. **Primary deficit:**

It is the difference between Fiscal deficit and Net interest payments

16. **Open economy:**

An economy that engages in international trade of goods, services, and capital

V. Answer in 4 sentences

17. Factors determining the optimal choice of a consumer:

- Income of the consumer
- Prices of goods and services
- Tastes and preferences
- Availability of substitutes and complements

18. Law of Demand:

The Law of Demand states that, other things being equal, the quantity demanded of a good decrease when its price increases and increases when its price decreases.

19. Types of Returns to Scale:

- Increasing Returns to Scale
- Constant Returns to Scale
- Decreasing Returns to Scale

20. Long-run costs:

- Long run Average cost (LRAC)
- Long run Marginal cost (LRMC)

21. Four factors of production and rewards:

- Land – Rent
- Labor – Wages
- Capital – Interest
- Entrepreneurship (Organisation) – Profit

22. Difference between Nominal and Real GDP:

Nominal GDP measures the value of goods and services at current prices., It is not reliable
Real GDP measures the value of goods and services at constant prices, adjusted for inflation., It is reliable

23. Cash Reserve Ratio (CRR) and Statutory Liquidity Ratio (SLR):

CRR: The percentage of a bank's total deposits that must be held as cash with the RBI.

SLR: The percentage of a bank's total deposits that must be maintained in the form of liquid assets like gold or government securities.

24. Motives of Demand for Money:

- Transaction motive
- Speculative motive

25. Autonomous Consumption and MPC:

Autonomous consumption = 150

Marginal Propensity to Consume (MPC) = 0.5

26. Free Riders:

People who benefit from public goods without paying for them. They are called so because they enjoy the benefits without contributing to the economy of the nation

VI. Answer any five of the following in 12 sentences

27. Briefly explain how the family farm, weaver and Teacher can use their resources to fulfil their needs in a simple economy.

Ans: People in the society need many goods and services in their everyday life including food clothing, shelter, transport facilities, postal services and various other services like that of teachers and doctors. In fact, the list of goods and services that any individual needs is so large that no individual in society has all the things he needs. Every individual has some amount of only a few of the goods and services that he would like to use. A family farm may own a plot of land, some grains, farming implements, may be a pair of bullocks and also the labour services of the family members.

A weaver may have some yarn, some cotton and other instruments required for weaving cloth. The teacher in the local school has the skills required to impart education to the students. Each of these decision-making units can produce some goods or services by using the resources that it has and use part of the produce to obtain the many other goods and services which it needs. For instance, the family farm can produce corn, use part of the produce for consumption purposes and procure clothing, housing and various services in exchange for the rest of the produce. Similarly, the weaver can get the goods and services that he wants in exchange for the cloth he produces in his yarn. The teacher can earn some money by teaching students in the school and use the money for obtaining the goods and services that he wants. Thus, each individual can use his resources to fulfil his needs. It is said that no individual has unlimited resources compared to his needs. The quantity of corn that the family farm can produce is limited by the quantity of resources it has and hence the amount of different goods and services that it can procure in exchange of corn is also limited. As a result, the family is forced to make a choice between the different goods and services that are available. It can have more of a good or service only by giving up some amounts of other goods or services.

28. Briefly explain the budget set with the help of a diagram.

Ans: The budget set is the collection of products that the consumer can buy with his income at the prevailing market prices. The Budget set is also known as opportunity set. It includes all the bundles (all possible combination of two goods) which the consumer can purchase with his given level of income. The budget equation can be written as follows:

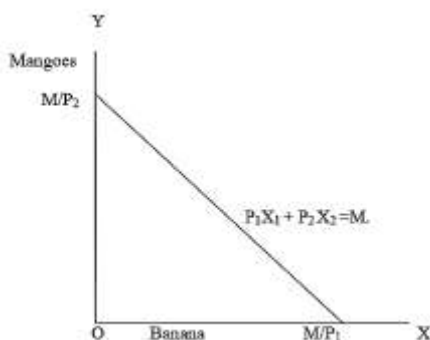
$$P_1X_1 + P_2X_2 \leq M.$$

Consider, for example, a consumer who has Rs.20 and suppose, both the goods are priced at Rs.5 and are available only in integral units. The bundles that this consumer can afford to buy are; (0,0), (0,1), (0,2), (0,3), (0,4), (1,0), (1,1), (1,2), (1,3), (2,0), (2,1), (2,2),

(3,0), (3,1) and (4,0). Among these bundles, (0,4), (1,3), (2,0), (2,2), (3,1) and (4,0) cost exactly Rs.20 and all the other bundles cost less than Rs.20. If both the goods are perfectly divisible, the consumer's budget set would consist of all bundles (x_1, x_2) such that x_1 and x_2 are any numbers greater than or equal to 0 and

$$P_1X_1 + P_2X_2 \leq M.$$

The budget set can be represented in a diagram as follows:



Quantity of bananas is measured along the horizontal axis and quantity of mangoes is measured along the vertical axis. Any point in the diagram represents a bundle of the two goods. The budget set consists of all points on or below the straight line having the equation $P_1X_1 + P_2X_2 = M$.

29. Explain the differences between normal and inferior goods with examples.

| Normal goods | Inferior goods |
|---|---|
| <ul style="list-style-type: none"> These are the goods for which the demand increases with the increase in the income of consumer. Example for normal goods are food, cloths, electronic goods, luxury goods etc. There is positive relationship between income and demand. Here the demand curve shifts towards right if the income of consumer increases. | <ul style="list-style-type: none"> These are the goods for which the demand decreases with the increase in the income of consumer. Example for inferior goods are low quality of goods like unbranded products. There is inverse relationship between income and demand. Here the demand curve shifts towards left if the income of consumer increases. |

30. The following table shows the Total Revenue (TR) and Total Cost (TC) schedules of a perfectly competitive firm. Calculate the profit at each output level.

| Quantity sold (Q) | TR (In Rs.) | TC (In Rs.) | Profit |
|-------------------|-------------|-------------|--------|
| 0 | 0 | 5 | -5 |
| 1 | 10 | 7 | 3 |
| 2 | 20 | 10 | 10 |
| 3 | 30 | 12 | 18 |
| 4 | 40 | 25 | 15 |
| 5 | 50 | 40 | 10 |
| 6 | 60 | 60 | 0 |
| 7 | 70 | 75 | -5 |

Formula Profit=Total Revenue–Total Cost

31. Write the table to show the Impact of simultaneous shift in demand and supply on equilibrium

Ans: The following table shows the impact of simultaneous shifts on equilibrium

| Shift in Demand | Shift in Supply | Quantity | Price |
|-----------------|-----------------|---|---|
| Leftward | Leftward | Decreases | May increase, decrease or remain constant |
| Rightward | Rightward | Increases | May increase, decrease or remain constant |
| Leftward | Rightward | May increase, decrease or remain constant | Decreases |
| Rightward | Leftward | May increase, decrease or remain constant | Increases |

32. Explain the role of the Government (State) and household sector in both developed and developing countries.

Ans:

Role of Government: In both the developed and developing countries, apart from capitalist sector, there is the institution of State. The role of the state includes framing laws, enforcing them and delivering justice. The State here refers to the Government which performs various developmental functions for the society as whole. It undertakes production, apart from imposing taxes and spending money on building public infrastructure, running schools, providing health services etc. These economic functions of the state have to be taken into account when we want to describe the economy of the country.

Role of Household sector: By household we mean a single individual who takes decisions relating to her own consumption or a group of individuals for whom the decisions relating to consumption is jointly determined. Households consist of people. These people work in firms as workers and earn wages. They are the ones who work in government departments and earn salaries or they are the owners of firms and earn profits. Therefore, the market in which the firms sell their products could not have been functioning without the demand coming from the households. Further, they also earn rent by leasing land or earn interest by lending capital

33. 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.,

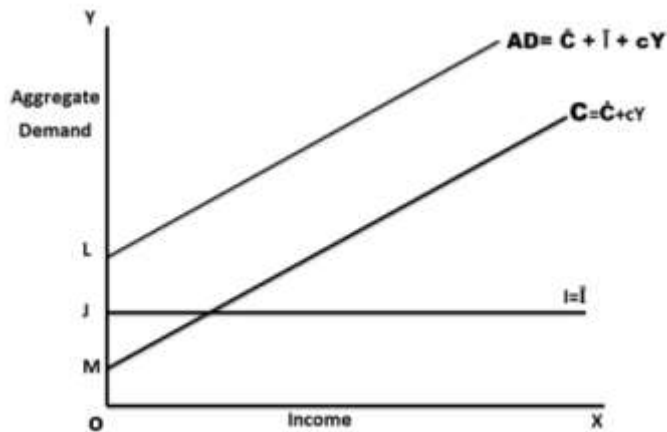
- Positive Externalities and
- Negative Externalities.

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 fishing 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.

34. Explain investment function with the diagram.

Ans: Investment is the addition to the stock of physical capital (such as machines, buildings, roads etc., i.e. anything that adds to the future productive capacity of the economy) and changes in the inventory (or the stock of finished goods) of a producer. The 'investment goods' like machines are also part of the final goods. Machines produced in an economy in a given year are not 'used up' to produce other goods but yield their services over a number of years. Investment decisions by producers, such as whether to buy a new machine, depend, to a large extent, on the market rate of interest. Here we assume here that firms plan to invest the same amount every year. We can write the ex-ante investment demand as $I = \bar{I}$ where \bar{I} is a positive constant which represents the autonomous investment (\bar{I}) in the economy in a given year.

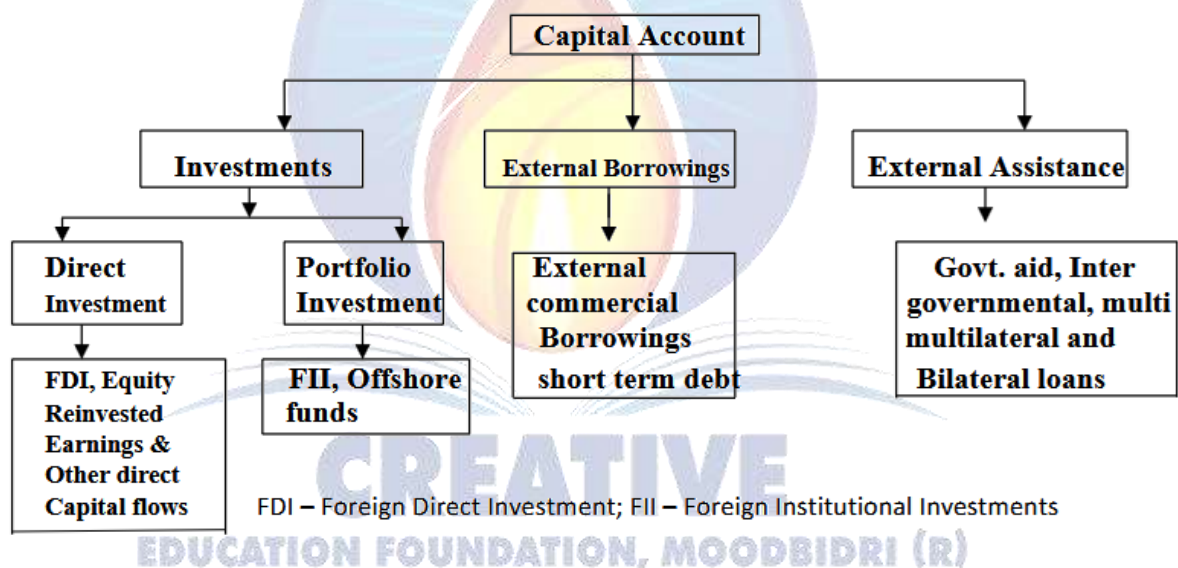
Graphically, the investment function is shown as a horizontal line at a height equal to I above the X axis.



Here, OM = Consumption, OJ = Investment, OL = Aggregate Demand i.e., $AD = C + I$. The aggregate demand is obtained by vertically adding the consumption and investment functions. The aggregate demand function is parallel to the consumption i.e., it has the same slope of ' C '.

35. Write the Capital Account components chart of Balance of Payments.

Ans:



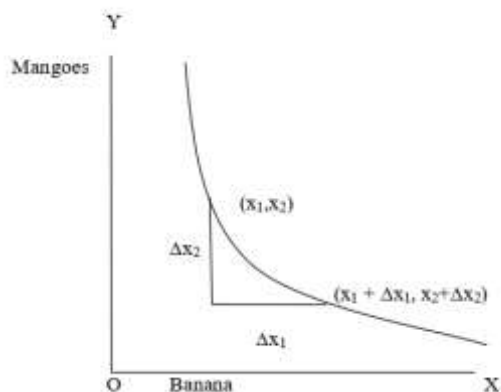
VII. Answer any three of the following questions in 20 sentences

36. Explain the features of Indifference curves with the help of diagrams.

Ans: Indifference curve shows the different combinations of two goods in which the consumer gets equal level of satisfaction. 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 units of one commodity, he has to forego some units of other commodity. This can be explained with the help of diagram.

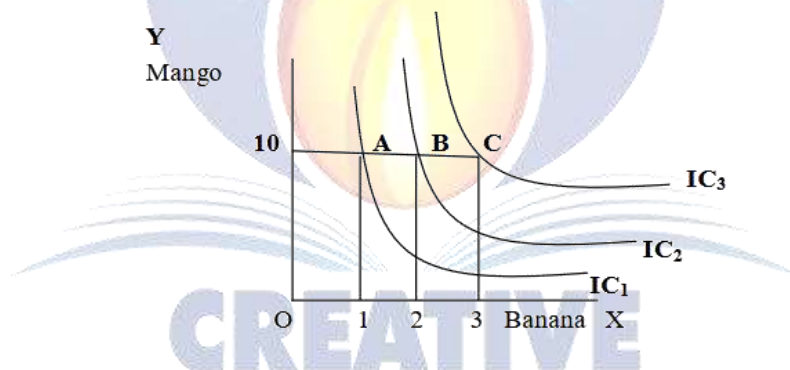


Thus, according to above diagram, as long as the consumer is on the same indifference curve, an increase in bananas must be compensated by a fall in quantity of mangoes. That means, an increase in the amount of bananas along the indifference curve is always associated with a decrease in the amount of 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:

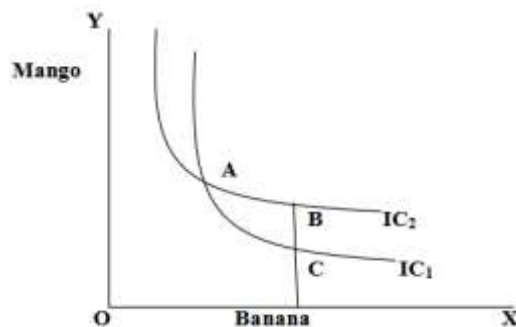
| Combination | Banana | Mango |
|-------------|--------|-------|
| A | 1 | 10 |
| B | 2 | 10 |
| C | 3 | 10 |



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:

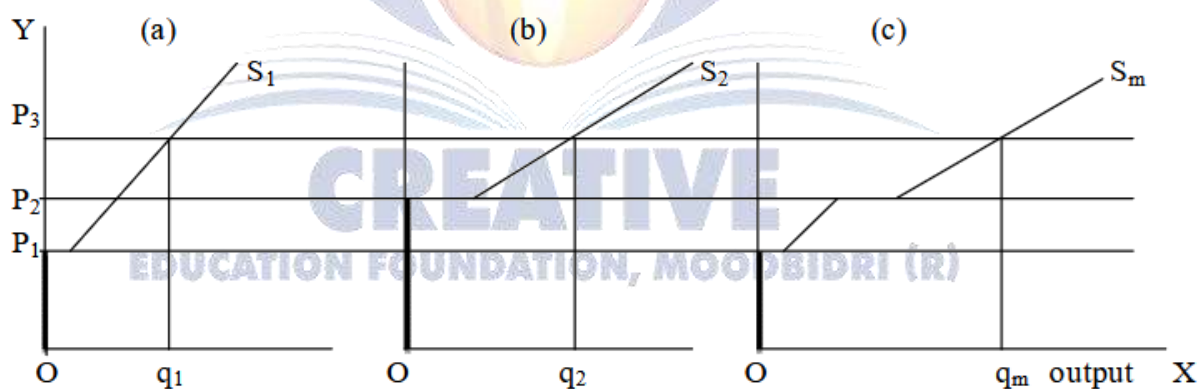
The two indifference curves never intersect with each other. This is because, if the two indifference curves intersect each other, they will give conflicting results. This can be explained with the help of diagram.



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 points 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.

37. Explain market supply curve with the help of a diagram.

Ans: The market supply curve shows the output levels that firms in the market produce in aggregate corresponding to different values of the market price. For example, there are firm 1, firm 2, firm 3 in the market. Suppose the price is fixed at p . Then the output produced by these firms in aggregate will be supply of firm 1 + supply of firm 2 + supply of firm 3. So, the market supply at price p is the summation of the supplies of individual firms at that price. The supply curve geometrically with two firms in the market i.e., firm 1 and firm 2 is given below. The two firms have different cost structures. Firm 1 will not produce anything if the market price is less than P_1 while firm 2 will not produce anything if the market price is less than P_2 . This can be represented in the diagram:



In the above diagram, output is measured in X axis and Price is measured in Y axis. The diagram (a) is the supply curve of firm 1 (S_1), diagram (b) is the supply curve of firm 2 (S_2) and the diagram (c) is the market supply curve (S_m). When the market price is below P_1 , both the firms do not produce the goods. Hence the market supply will be zero. If the market price is greater than or equal to P_1 , but less than P_2 , only firm 1 will produce the goods. In this range, the market supply curve coincides with the supply curve of firm 1. If the market price is greater than or equal to P_2 , both firms will have positive output levels. If the price is P_3 , the firm 1 will supply q_1 units of output and firm 2 supplies q_2 units of output. So, the market supply at price P_3 is q_m , where $q_m = q_1 + q_2$. The market supply curve S_m is obtained by taking a horizontal summation of the supply curves of the two firms in the market S_1 and S_2 .

38. Suppose the GDP at market prices of a country in a particular year is Rs. 4,000 crores. Net Factor Income from Abroad [NFIA] is Rs. 500 crores. The depreciation is Rs. 450 crores and the value of Net Indirect Taxes [NIT] is Rs. 300 crores. Complete the following table.

| Identities | Values (Rs. in crores) |
|------------|------------------------|
| GDP_{MP} | 4000 |
| GDP_{FC} | 3700 |
| NDP_{MP} | 3550 |
| NDP_{FC} | 3050 |
| GNP_{MP} | 4500 |
| GNP_{FC} | 4200 |
| NNP_{MP} | 4050 |

1. **GDP at Factor Cost (GDP_{FC})**

GDP at Market Price (GDP_{MP}) – Net Indirect Taxes (NIT)

2. **Net Domestic Product at Market Price (NDP_{MP})**

GDP at Market Price (GDP_{MP}) – Depreciation

3. **Net Domestic Product at Factor Cost (NDP_{FC})**

NDP at Market Price (NDP_{MP}) – Net Indirect Taxes (NIT)

4. **Gross National Product at Market Price (GNP_{MP})**

GDP at Market Price (GDP_{MP}) + Net Factor Income from Abroad (NFIA)

5. **Gross National Product at Factor Cost (GNP_{FC})**

GNP at Market Price (GNP_{MP}) – Net Indirect Taxes (NIT)

6. **Net National Product at Market Price (NNP_{MP})**

GNP at Market Price (GNP_{MP}) – Depreciation

39. **Elucidate the functions of money? How does money overcome the short comings of a barter system?**

Money is the commonly accepted medium of exchange. In an economy which consists of only one individual there cannot be any exchange of commodities and hence there is no role for money. The main functions of money are as follows:

a) Medium of Exchange: Money plays an important role as a medium of exchange. It facilitates exchange of goods for money. It has solved the problems of barter system. Barter exchanges become extremely difficult in a large economy because of the high costs people would have to

incur looking for suitable persons to exchange their surpluses. It helps the people to sell in one place and buy in another place. Money has widened the scope of market transactions. Money has become a circulating material between buyers and sellers.

b) Measure of Value/Unit of account: The money acts as a common measure of value. The values of all goods and services can be expressed in terms of money. As a measure of value, money performs following functions:

- The value of all goods and services measured and expressed in terms of the money.
- Rate of exchange of goods and services expressed in money.
- Helps in maintenance of accounts.
- It facilitates price mechanism.
- It makes goods and services comparable in terms of price.

For instance, when we say that the value of a book is Rs.500 we mean that the book 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.5 and that of a pen is Rs.10 we can calculate the relative price of a pen with respect to a pencil i.e., a pen is worth $10/5=2$ pencils. If prices of all commodities increase in terms of money i.e., there is 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.

c) Store of value: People can save part of their present income and hold the same for future. Money can be stored for precautionary motives needed to overcome financial stringencies. Money solves one of the deficiencies of barter system i.e., difficulty to carry forward one's wealth under the barter system. For instance, we have an endowment of wheat which we do not wish to consume today entirely. We may regard this stock of surplus wheat as an asset which we may wish to consume or even sell off, for acquiring other commodities at some future date. But wheat is a perishable item and cannot be stored beyond a certain period. Also, holding the stock of rice required a lot of space. We may have to spend considerable time and resources looking for people with a demand for wheat when we wish to exchange our stock for buying other commodities. This problem can be solved if we sell our wheat for money. Money is not perishable and its storage costs are also less.

d) Transfer of value: Money acts as a transfer of value from person to person and from place to place. As a transfer of value, money helps us to buy goods, properties or anything from any part of the country or the world. Further, money earned in different places can be brought or transferred to anywhere in the world. Now a days countries have made an attempt to move towards an economy which use less of cash and more of digital transactions. A cashless society describes an economic state whereby financial transactions are not connected with money in the form of physical bank notes or coins. In India government has been consistently investing in various reforms for greater financial inclusion. During the last few years' initiatives such as Jan Dhan accounts, Aadhar enabled payment systems, e –Wallets, National financial Switch etc.

40. List out the merits and demerits of flexible and fixed exchange rate system.

Ans:

Flexible exchange rate: The flexible exchange rate is determined by the market forces of demand and supply. Here, the exchange rate is determined at that point where the demand curve intersects with the supply curve.

Merits of Flexible exchange rate:

- The flexible exchange rate system gives the government more flexibility and they do not need to maintain large stocks of foreign exchange reserves.
- The movements in the exchange rate automatically take care of the surpluses and deficits in the Balance of payments.

Demerits of Flexible Exchange rate:

- It is subject to international market fluctuations as the rate of exchange is determined by market forces demand and supply.
 - It may lead to uncertainties in foreign exchange market due speculations.
- Fixed exchange rate:**
Under this exchange rate system, the Government fixes the exchange rate at a particular level. Here, the central monetary authority or the Government decides the exchange rate in accordance with the international market requirements.

Merits of Fixed Exchange rate:

- There is more credibility that the government will be able to maintain the exchange rate at the level specified.
- In case of deficit balance of payments, the governments will interfere to take care of the gap by use of its official reserves.

Demerits of Fixed exchange rate:

- If the foreign exchange reserves are inadequate, people would begin to doubt the ability of the government.
- There may be aggressive buying of one currency forcing the government to devalue, so there may be speculative attack on a currency.

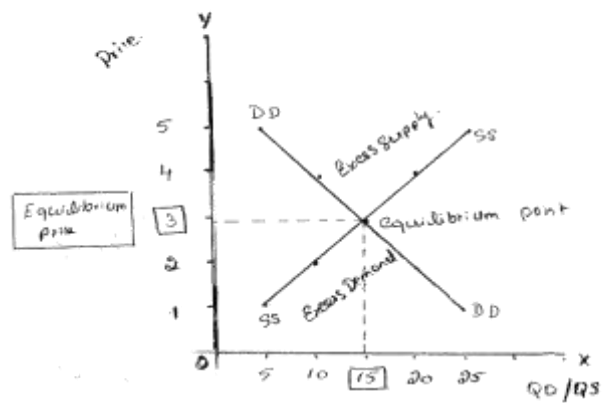
VIII. Answer any two of the following projects and assignment-oriented questions.

41. Find the missing products in the following table

| Factor | TP _L | MP _L | AP _L |
|--------|-----------------|-----------------|-----------------|
| 0 | 0 | 0 | 0 |
| 1 | 15 | 15 | 15 |
| 2 | 25 | 10 | 12.5 |
| 3 | 50 | 25 | 16.66 |
| 4 | 60 | 10 | 15 |
| 5 | 68 | 8 | 13.6 |

42. Draw a diagram for the following table and identify the equilibrium point, equilibrium price, equilibrium quantity, excess demand and excess supply in the diagram.

| P | QD | QS |
|---|----|----|
| 1 | 25 | 5 |
| 2 | 20 | 10 |
| 3 | 15 | 15 |
| 4 | 10 | 20 |
| 5 | 5 | 25 |



Equilibrium quantity 15
Equilibrium Price 3

43. Prepare Surplus on monthly income and expenditure of your Family

Budget for the month of June

| Income | | Expenditure | |
|------------------------|-----------|------------------|------------|
| • Father's salary | Rs.30,000 | • Food | Rs.10,000 |
| • Rent from house | Rs.20,000 | • Water | Rs. 1,000 |
| • Income from Business | Rs.10,000 | • Transportation | Rs. 6,000 |
| | | • School fees | Rs. 10,000 |
| | | • Milk | Rs. 1,000 |
| | | • Medicines | Rs. 2,000 |
| Total : Rs.60,000 | | Total : | Rs.30,000 |

This family has surplus budget as its income is more than expenditure.

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