

**CBSE**  
**Class XII Economics (Re-exam)**  
**All India Board Paper Set 1 – 2018 Solution**

**SECTION A**

1. Problem of scarcity means the situation wherein demand for resources is greater than the availability of resources in an economy.
2. Cost refers to the expenditure incurred by a producer on factors of production such as purchase of plant and machinery and cost of hiring labour.
3. **Option c is the correct answer.** When average cost falls, marginal cost *may fall or may rise*.
4. **Option b is the correct answer.** When marginal product rises, total product *rises*.
5. Difference between Microeconomics and Macroeconomics

Microeconomics	Macroeconomics
Studies the behaviour of individuals.	Studies the behaviour of the economy as a whole.
Deals with the determination of prices and quantities of goods and services in the individual market.	Deals with the determination of the aggregate price level and the quantities of goods and services in an economy.
<b>Example</b> -Individual demand, individual supply, rent, wages, profit and price are main variables.	<b>Example</b> -Inflation, aggregate demand, aggregate supply and employment level are main variables.

**OR**

A production possibility curve is a curve indicating various possibilities of two goods which can be produced by using available resources and the given level of technology. It shows that all the available resources and technology are optimally utilised if a country is producing maximum goods and services.

Yes, a production possibility curve can shift. It can shift under following scenarios.

- i. **When there is a change in availability of resources**- Production Possibility Curve (PPC) shifts to the right when there is an increase in availability of resources. On the other hand, when there is a decrease in availability of resources, Production Possibility Curve (PPC) shifts to the left.
- ii. **When there is a change in technology level**- Production Possibility Curve (PPC) shifts to the right when there is an advancement of technology. In case of deterioration of technology, PPC shifts to the left.

6. The following are the determinants of individual demand:

- i. **Income of the consumer:** Income of the consumer affects the demand for a commodity. How the income of the consumer affects the demand depends on the type of good.
  - a. Normal goods: For normal goods, as the income of the consumer increases, the demand increases and *vice versa*.
  - b. Inferior goods: In case of inferior goods, with an increase in income, the demand decreases and *vice versa*.
- ii. **Future expectations:** Future expectations about the price and availability of the commodity also affect the demand for the commodity. For instance, if the consumer expects that there would be a shortage of the commodity in the future, then he will increase the demand even at the existing price.
- iii. **Consumers' tastes and preferences:** Assume that other things remaining constant, if a consumer has more preference for a good than other goods, then the demand for those goods will increase. On the other hand, if a consumer has no preference for a good than other goods, then the demand for those goods will decrease.

7. Given:

Change in the price of the commodity = 10%

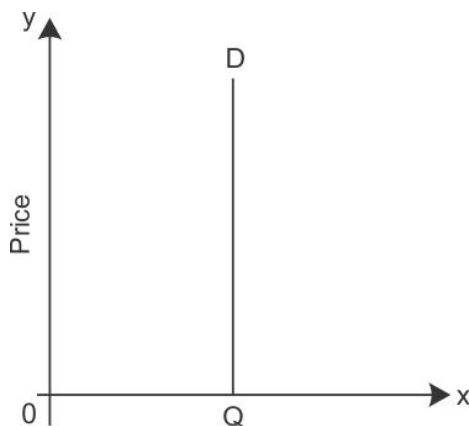
Change in the quantity demanded = 0

$$E_d = \frac{\text{Percentage change in quantity demanded}}{\text{Percentage change in price}}$$

$$E_d = \frac{0}{10}$$

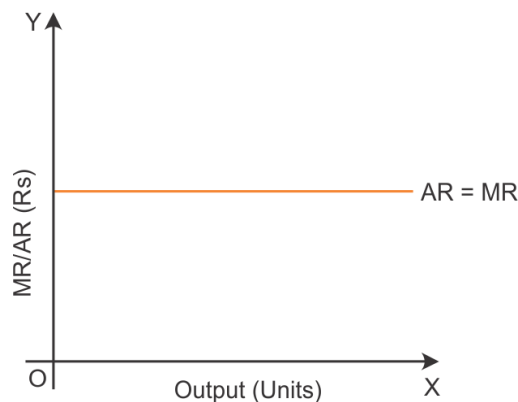
$$\therefore E_d = 0$$

When the demand for a good does not change with the change in the price of that good, it is said to be perfectly inelastic, i.e.  $E_d = 0$ . Thus, demand curve in the given case will **be parallel to y-axis**.



8. In microeconomics, revenue of a firm refers to the money received from the sale of a given output. It is measured by considering the price of goods and the total quantity sold in the market.

### Relationship between MR and AR under Perfect Competition



Marginal revenue is the revenue which is generated by selling an additional unit of a commodity. It is the change in total revenue when an additional unit of a commodity is sold in the market.

$$MR_n = TR_n - TR_{n-1}$$

Average revenue is calculated by considering the total revenue and the quantity sold.

$$AR = \frac{TR}{Q}$$

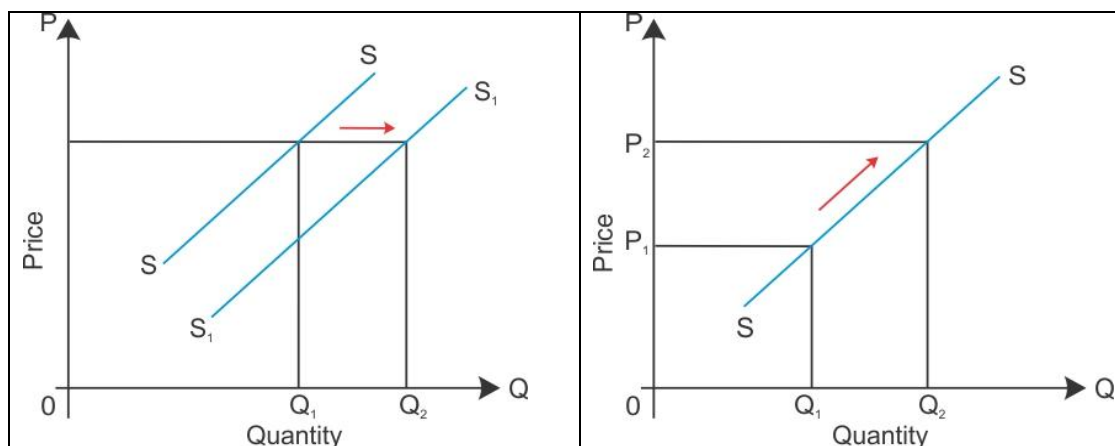
Under the perfect competition market, AR is equal to MR at all levels of output. Hence, the MR curve is a straight horizontal line which is parallel to the X-axis and coincides with the AR curve.

**OR**

Supply refers to the quantity of commodity that the producers offer for sale at different prices.

Difference between increase in supply and extension in supply

<b>Increase in supply</b>	<b>Extension in supply</b>
Occur due to <b><i>change in factors</i></b> other than price of the commodity	Occur due to increase in the <b><i>price</i></b> of the commodity
Shown by <b><i>rightward shift</i></b> in the supply curve	Shown by <b><i>upward movement</i></b> along the supply curve
<b><u>Diagrammatic representation:</u></b>	<b><u>Diagrammatic representation:</u></b>



9. Price floor means the minimum price fixed by the government for a good in the market. The government fixes this price on agricultural products and food grains in particular. A minimum price is fixed which the traders must pay to the farmers in the wholesale market. Thus, the income of the farmer is regulated and a continuous production is assured.

**Implications of price floor:**

- The government ensures to buy the full produce of the farmers which are not sold in the market at the price floor. Hence, they are able to produce the maximum level of output.
- Farmers are ensured with the minimum returns as their products are completely sold in the market at comparatively higher price. This leads to an increase in their level of income.
- Because of price floor, consumers and traders in the market are forced to pay higher price than the equilibrium price.

**10. Conditions of consumer's equilibrium using utility analysis:**

When a consumer buys both Goods X and Y, the consumer's equilibrium condition is expressed through the equation:

$$\frac{MU_x}{P_x} = \frac{MU_y}{P_y} = \frac{MU_m}{P_n} = MU_m$$

Consider the following numerical example to understand the consumer's equilibrium using marginal utility. A consumer Marginal Utility of Money ( $MU_m$ ) is 16 utils and two Goods X and Y whose prices are Rs 1 ( $P_x$ ) and Rs 1 ( $P_y$ ) per unit, respectively. Consider the following schedule to analyse marginal utility of good x ( $MU_x$ ) and good y ( $MU_y$ ).

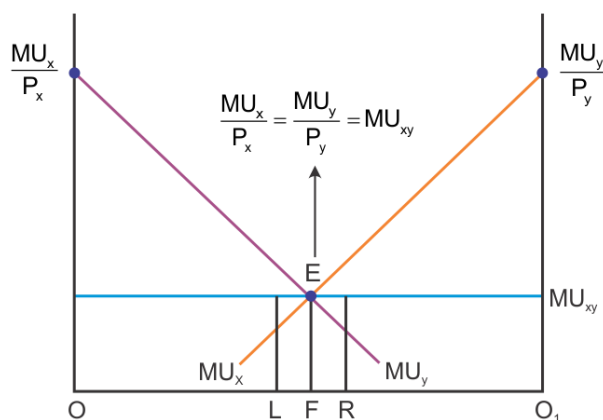
Units of x	MU <sub>x</sub> (Utils)	MU <sub>y</sub> (Utils)
1	28	32
2	24	29
3	21	27
4	20	23
5	16	20
6	13	18
7	9	17
8	5	16
9	3	12
10	1	9

Based on the given schedule, the consumer is in equilibrium at the consumption of 5 units of commodity x and 8 units of commodity y. At such a consumption combination, the marginal utility of a rupee spent on the commodity x  $\left(\frac{MU_x}{P_x}\right)$  is equal to the marginal utility of a rupee spent on the commodity y  $\left(\frac{MU_y}{P_y}\right)$  and also equal to the marginal utility of money ( $MU_m$ ).

Marginal utility of a rupee spent on commodity x = marginal utility of a rupee spent on commodity y = Marginal utility of money

$$\frac{MU_x}{P_x} = \frac{MU_y}{P_y} = MU_m$$

$$\frac{MU_x}{P_x} = \frac{MU_y}{P_y} = \frac{16}{1} = 16 = MU_m$$



In the diagram,  $OO_1$  is the total income of a consumer.  $MU_x$  and  $MU_y$  are the marginal utility curves of commodity x and commodity y, respectively.

The consumer does not attain equilibrium at Point L because the point at L is

$$\frac{MU_x}{P_x} > \frac{MU_y}{P_y}$$

The consumer does not attain equilibrium at Point R because the point at R is

$$\frac{MU_x}{P_x} < \frac{MU_y}{P_y}$$

So, when OF amount of income is spent on commodity x and FO<sub>1</sub> amount is spent on commodity y, the consumer is in equilibrium at Point E. Hence, at this point

$$\frac{MU_x}{P_x} = \frac{MU_y}{P_y} = MU_m \quad \text{OR}$$

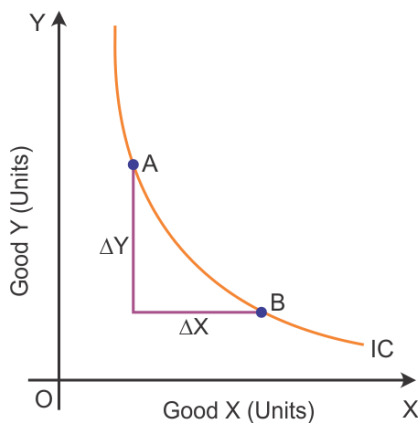
### Properties of indifference curves (ICs)

**i. Indifference curves slope downwards or negative slope:**

The indifference curves slope downwards, left to right, because an increase in the amount of Good X along the indifference curve is associated with a decrease in the amount of Good Y, as the preferences are monotonic.

**ii. Slope of indifference curves represents marginal rate of substitution:**

Marginal rate of substitution (MRS) is the rate at which a consumer is willing to substitute one commodity for another commodity.

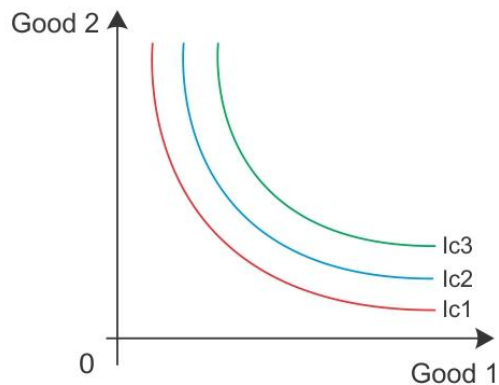


$$\text{Slope of indifference curve between A and B} = \frac{\Delta Y}{\Delta X} = \text{MRS}$$

MRS is the rate at which the output of Good Y is sacrificed for every additional unit of Good X.

**iii. In an indifference map, higher IC represents higher level of satisfaction:**

An indifference map refers to a set of indifference curves. An indifference curve which is to the right and above another shows a higher level of satisfaction to the consumer. Here, IC<sub>3</sub> shows higher level of satisfaction than IC<sub>2</sub>. Thus, the indifference curve relates to a higher level of income of the consumer.



11. **Law of variable proportion:** Law of variable proportion states that as more of the variable factor input is combined with the fixed factor input, a point will eventually be reached where the marginal product of the variable factor input starts declining.

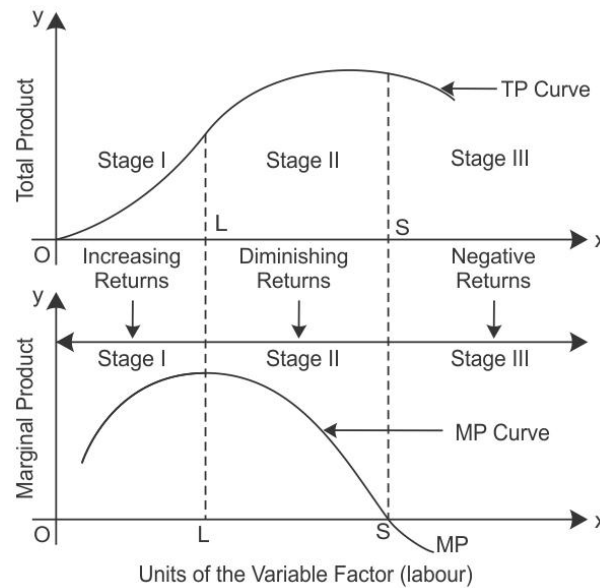
Units of Fixed Factor	Units of Variable Factor	TP	MP
1	1	4	4
1	2	12	8
1	3	24	12
1	4	32	8
1	5	34	2
1	6	34	0
1	7	30	-4
1	8	21	-9
1	9	10	-11

Let us consider the above table.

**Stage I:** As more units of factor input are used, MP tends to rise till 3 units of factor input are used. Here, the total product increases at an increasing rate which is called increasing returns to the factor input.

**Stage II:** However, when the 4<sup>th</sup> unit of factor input is used, the diminishing returns sets in where MP starts decreasing and TP increases at a decreasing rate. Diminishing MP reduces to zero. The total output is the maximum when the marginal output is zero.

**Stage III:** When MP is negative, TP starts declining from 34 to 10 when the 9<sup>th</sup> unit is employed.



12. A perfectly competitive market is a type of market where there are a large number of buyers and sellers.

Characteristics of a perfectly competitive market:

- i. **Large number of sellers and buyers:** The main feature of a perfectly competitive market is a large number of buyers and sellers in the market. Due to this feature, no single buyer or seller can influence market prices.
- ii. **Homogeneity:** All the producers in a perfectly competitive market always produce a similar type of products. Homogeneity in products is one of the important features of a perfectly competitive market.
- iii. **Complete mobility of factors of production:** In a perfectly competitive market, all the factors of production can shift from one place to another for better opportunity purposes.
- iv. **No transportation cost:** All the goods and services are manufactured in a local market, so transportation cost exists in a perfectly competitive market.

### SECTION B

13. **Option a is correct.** With a rise in real national income, welfare of the people **rises**. This is because when real GDP increases, output in the economy increases resulting in greater availability of resources per person. This implies rise in the welfare of the people.

14. If Legal Reserve Ratio is 20%, then value of money multiplier is 5.



$$\text{Money multiplier } (k) = \frac{1}{LRR} = \frac{1}{20\%}$$

$$k = \frac{100}{20}$$

$$\therefore k = 5$$

**15. Option b is correct.** Central bank *does not provide banking facilities to public.*

**16.** If the value of average propensity to consume is given as 0.75, the value of average propensity to save would be **0.25**.

$$APC + APS = 1$$

$$0.75 + APS = 1$$

$$APS = 1 - 0.75 = 0.25$$

**17. (a)** A car used as a taxi- It is a **capital good** as it is used as a fixed asset by the taxi driver.

(b) Refrigerator in a hotel- It is a **capital good** as it is used as a fixed asset in the hotel.

(c) Air-conditioner in a house- It is a **consumer good** as it is used by the final user and is not used in the production of other goods.

**OR**

Consumption of those goods which are within the boundary line of production, still the value is yet to add to these goods and are not available for use by their final users is called **intermediate consumption**. These goods are consumed by another firm and are used as intermediate goods in the production process or for further sale. For example, papers purchased by Newspaper agency for printing news. Here, consumption of paper is intermediate consumption. Value of intermediate goods is merged with the value of final goods.

**Final consumption** refers to consumption of those goods which will not pass any more stages of production process and are ready for use by their final users. Consumers and producers are the final users.

**18. (i)**  $C = 100 + 0.6Y$  (given)

$$\text{We know, } C = 100 + MPC \cdot Y$$

$$\text{Thus, } MPC = 0.6$$

$$\text{Now, } MPC + MPS = 1$$

$$0.6 + MPS = 1$$

$$MPS = 1 - 0.6 = 0.4$$

Hence, marginal propensity to consume is 0.6 and marginal propensity to save is 0.4.

(ii) Saving function is  $S = -100 + 0.4 Y$

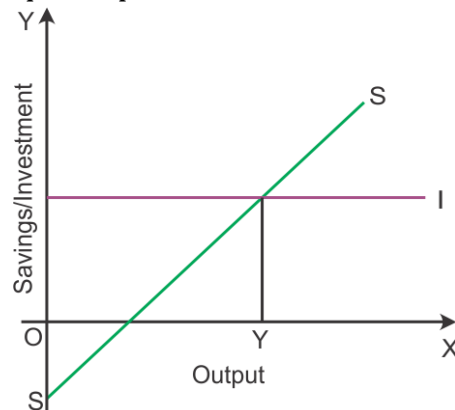
19. The two methods of controlling credit which may be used by the central bank are:

- i. **Bank rate:** The rate at which commercial banks borrow credit from the RBI is called the bank rate. Bank rate is the rate at which the central bank provides credit to commercial banks. An increase or decrease in the bank rate leads to an increase or decrease in the market rate of interest. Thereby the cost of credit changes in the market.
- ii. **Open market operations:** Open market operations refer to the sale and purchase of government securities and bonds by the Central Bank. For example, when Central Bank **sells government securities to the public through the banks**. This results in the transfer of a part of bank deposits to the Central Bank account and reduces credit creation capacity of commercial banks.

Or

The central bank of a country has the exclusive authority to issue the currency (notes + coins). The currency issued by the central bank is known as 'legal tender money' i.e. the value of such currency is backed by the central bank. However, the currency issued by the central bank is its monetary liability. In other words, the central bank is obliged to back the currency issued by it by assets of equal value such as gold coins and foreign exchange. In addition to issuing currency to the general public, the central bank also issues currency to the central government of the country. That is, the central government if required, can sell its securities to the central bank and in return gets the required cash currency.

20. According to the saving–investment approach, equilibrium is attained at the point where planned saving is equal to planned investment.



According to the diagram, equilibrium is attained at Point E, where the saving curve SS intersects the investment curve I. Corresponding to this, the equilibrium level of output is OY.

In case of any deviation from the equilibrium level of output, a readjustment would start which would again bring back the economy to equilibrium.

If planned saving is more than planned investment, then there would be a rise in the level of inventory. To correct the situation, firms would reduce output and employment till investment and saving become equal to each other.

On the other hand, if planned saving is less than planned investment, then there would be a fall in the level of inventory. To correct the situation, firms would increase output and employment till investment and saving become equal to each other.

- 21.** Investment multiplier is the ratio between increase in income  $\Delta Y$  and increase in investment  $\Delta I$ .

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

Where;

k is multiplier

$\Delta Y$  increase in output

$\Delta I$  increase in investment

Additional investment  $\Delta I$  generates additional income  $\Delta Y$  but income generated is many times more than the investment.

*Relationship between multiplier and mpc*

There is a direct relationship between multiplier and mpc. Higher the value of mpc, higher the multiplier effect and vice versa.

*Relationship between multiplier and mps*

There is an inverse relationship between multiplier and mps. Higher the value of mps, lower the multiplier effect and vice versa.

Assume MPC is 0.5, multiplier mechanism is as follows:

As a result of initial increase in investment by Rs 100 crore, there is change in income by Rs 100 crore in first round. Hence, mpc is 0.5, consumption will increase by Rs 50 crore and saving will increase by Rs 50 crore. In the second round, with the consumption expenditure of Rs 50 crore, there will be an increase in income by Rs 50 crore. This change in income Rs 25 crore is utilised for consumption from Rs 50 crore and the remaining Rs 25 crore is saved. Likewise, in different time periods, income will keep on increasing with an increase in consumption expenditure. In an economy, as people become thriftier they end up saving less or same as before in aggregate. This theory produced by Keynes “when people start saving money instead of spending it, in response to growing concerns about recession, they actually make the recession worse”. Rise in MPS means a fall in MPC. When MPC falls, aggregate consumption

expenditure in the economy falls. It leads to a rise in inventory and the producers and firms would thus plan to reduce the production. The demand for factor services and factor incomes will reduce. As a result, the total volume of saving generated in the economy would fall or remain unchanged. This is known as paradox of thrift.

22. (a) Differences between revenue expenditure and capital expenditure:

Revenue expenditure	Capital expenditure
Does not generate assets for the government	Generates assets for the government
Liability of the government cannot be reduced by revenue expenditure	Liability of the government can be reduced by capital expenditure
Examples: Expenditure on the defence sector, paying interest payments	Examples: Buying of shares, expenditure on building roads and highways

(b) Differences between primary deficit and capital deficit:

Primary deficit	Fiscal deficit
It is the difference between fiscal deficit and interest payment.	It is the difference between the government's total expenditure and total receipts without considering the borrowing.
It indicates borrowing requirement of the government exclusive of interest payment.	It indicates borrowing requirement of the government inclusive of interest payment.
Primary deficit = Fiscal deficit – Interest payment	Fiscal deficit = Total expenditure – Total receipts (except borrowings)

OR

Revenue receipts refer to receipts of the government as a result of which there is neither any creation of liability nor any reduction in assets of the government.

Two main sources of revenue receipts of the government:

- i. **Tax receipts:** It refers to the receipts from taxes and other such duties as imposed by the government. Taxes can further be classified as follows:
  - a. **Direct taxes:** Direct taxes refer to taxes which are imposed directly on the individual and companies. The burden of such taxes cannot be passed onto others. Examples: Income tax, corporation tax

b. **Indirect taxes:** Indirect taxes are taxes which are imposed on the consumption of goods and services. The burden of such taxes can be shifted to others. Examples: Sales tax, service tax

- ii. **Non-tax receipts:** Non-tax receipts refer to various receipts of the government from sources other than taxes. Some major sources of non-tax revenue receipts are interests on loans, fees and fines, licence fees, escheats, forfeitures, gifts and grants etc.

The system of taxation and subsidies by the government can be used to reduce the inequality of income in the economy. This can be done by imposing higher taxes on high-income groups and providing subsidies to low-income groups.

Capital receipts refer to receipts of the government as a result of which there is either a creation of liability or any reduction in the assets of the government.

Three main sources of capital receipts of the government:

- i. **Recovery of loans:** It includes recovery of loans which was given to the state government.
- ii. **Borrowings and other liabilities:** It includes government borrowing from the general public, the Reserve Bank of India and rest of the world.
- iii. **Other receipts:** It includes disinvestment.

23. Fixed exchange rate (also known as pegged exchange rate) is determined by the government and government has complete control over it. Under a fixed exchange rate, the exchange rate remains fixed as determined by the government.

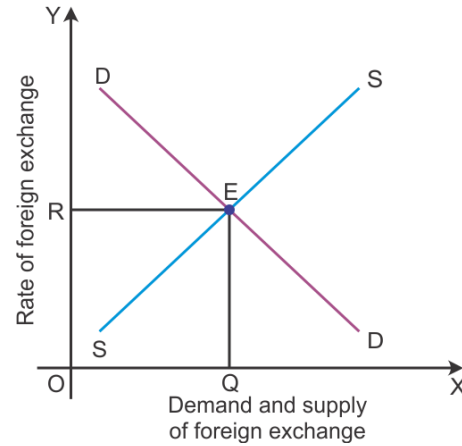
### **Equilibrium Exchange Rate**

Under a flexible exchange rate regime, the exchange rate is determined by the forces of demand and supply. Demand for foreign exchange arises from the need to make payments in foreign exchange. Demand for foreign exchange varies inversely with the foreign exchange rate. As the foreign exchange rate rises, the demand for foreign exchange falls and *vice versa*. Supply of foreign exchange arises from the receipts of foreign exchange.

The supply of foreign exchange rate varies directly with the foreign exchange rate. As foreign exchange rate rises, the supply of foreign exchange rises and *vice versa*.

Equilibrium exchange rate is determined at the point where the demand for foreign exchange is equal to the supply of foreign exchange. Graphically, it is determined at the point where the demand curve for foreign exchange intersects the supply curve of foreign exchange.

According to the graph, the equilibrium is determined at Point E, where the demand curve DD intersects the supply curve SS. Here, the equilibrium exchange rate is OR and the equilibrium quantity of foreign exchange is OQ.



**24. (a)**  $GDP_{MP} = \text{Private final consumption expenditure (C)} + \text{Government final consumption expenditure (G)} + \text{Gross domestic capital formation (I)} + \text{Net exports (X-M)}$

$$GDP_{MP} = 3500 + 4000 + 1100 + 500$$

Thus,  $GDP_{MP} = \text{Rs } 9100$

(b)  $NNP_{FC} = GDP_{MP} - \text{Consumption of fixed capital} + \text{NFIA} - \text{NIT}$

$$NNP_{FC} = 9100 - 120 + 100 - 300$$

Thus,  $NNP_{FC} = \text{Rs } 8780$