

CBSE
Class XII Economics
Delhi Board Paper Set 3 – 2013

Time: 3 hrs

Max. Marks: 100

Note:

- Please check that this question paper contains 12 printed pages.
- Code number given on the right hand side of the question paper should be written on the title page of the answer-book by the candidate.
- Please check that this question paper contains 32 questions.
- **Please write down the Serial Number of the question before attempting it.**
- 15 minutes time has been allotted to read this question paper. The question paper will be distributed at 10.15 a.m. From 10.15 a.m. to 10.30 a.m., the students will read the question paper only and will not write any answer on the answer-book during this period.

General Instructions:

- (i) **All** questions in both the sections are compulsory.
- (ii) Marks for questions are indicated against each question.
- (iii) Questions Nos. **1 – 5** and **17 – 21** are very short-answer questions carrying **1** mark each. They are required to be answered in one sentence.
- (iv) Questions Nos. **6 – 10** and **22 – 26** are short answer questions carrying **3** marks each. Answers to them should normally not exceed **60** words each.
- (v) Questions Nos. **11 – 13** and **27 – 29** are also short answer questions carrying **4** marks each. Answers to them should normally not exceed **70** words each.
- (vi) Question Nos. **14 – 16** and **30 – 32** are long-answer questions carrying **6** marks each. Answers to them should normally not exceed **100** words each.
- (vii) Answers should be brief and to the point and the above word limits should be adhered to as far as possible.

SECTION A

1. Give an example each of fixed cost and variable costs. (1)
2. Under which market form a firms marginal revenue is always equal to price? (1)
3. Given the meaning of market demand. (1)
4. Define marginal cost. (1)
5. When is the demand for a good said to be inelastic? (1)

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

OR

Explain the condition of consumer's equilibrium with the help of utility analysis. (3)

7. Explain the difference between an inferior good and a normal good. (3)
8. The price elasticity of supply of a good is 0.8. Its price rises by 50 percent. Calculate the percentage increase in its supply. (3)
9. Complete the following table: (3)

Output (Units)	Average Cost (Rs)	Marginal Cost (Rs)
1	16	
2	20	
3		20
4	18	
5		8
6	14	

10. Explain 'freedom of entry and exit to firms in industry' feature of monopolistic competition. (3)
11. Production in an economy is below its potential due to unemployment. Government starts employment generation schemes. Explain its effect using production possibilities curve. (4)
12. Give the meaning of producer's equilibrium. A producer that quantity of his product at which marginal cost and marginal revenue are equal. Is he earning maximum profits? Give reason for your answer. (4)
13. The price elasticity of demand for a good is - 0.4. If its price increases by 5 percent by what percentage will its demand fall? Calculate. (4)

OR

Explain any two factors that affect the price elasticity of demand. Give suitable examples.

14. Explain the Law of Variables Proportions with the help of total product and marginal product curves. (6)
15. Explain consumer's equilibrium with the help of Indifference Curve Analysis.

OR

Explain the relationship between

- (i) Prices of other goods and demand for the given good.
- (ii) Income of the buyers and demand for a good. (6)

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16. Giving reasons, state whether the following statements are true or false.
(i) A monopolist can sell any quantity he likes at a price.
(ii) When equilibrium price of a good is less than its market price, there will be competition among the sellers. (6)
17. Give two examples of indirect taxes. (1)
18. How can increase in foreign direct investment affect the price of foreign exchange? (1)
19. Give one example of 'externality' which reduces welfare of the people. (1)
20. What is a Government Budget? (1)
21. What are demand deposits? (1)
22. Distinguish between revenue expenditure and capital expenditure in Government budget. Give an example of each. (3)
- OR**
- Distinguish between revenue deficit and fiscal deficit.
23. Explain the effect of appreciation of domestic currency on imports. (3)
24. Distinguish between balance of trade and balance on current account? (3)
25. Explain the problem of double coincidence of wants faced under barter system. How has money solved it? (3)
26. Explain any one objective of Government Budget? (3)
27. Calculate 'sales' from the following data: (4)
- | S. No. | Particulars | (Rs in laths) |
|--------|--------------------------------|---------------|
| (i) | Intermediate Costs | 700 |
| (ii) | Consumption of fixed capital | 80 |
| (iii) | Change in stock | (-) 50 |
| (iv) | Subsidy | 60 |
| (v) | Net value added at factor cost | 1300 |
| (vi) | Exports | 50 |
28. Explain "Banker to the government" function of the Central Bank. (4)
29. Giving reasons categorise the following into stock and flow: (4)
- (i) Capital
(ii) Saving

- (iii) Gross domestic product
- (iv) Wealth

OR

Explain the circular flow of income.

30. Calculate National Income from the following data:

(6)

S. No.	Particulars	(Rs in crores)
(i)	Private final consumption expenditure	900
(ii)	Profit	100
(iii)	Government final consumption expenditure	400
(iv)	Net indirect taxes	100
(v)	Gross domestic capital formation	250
(vi)	Change in stock	50
(vii)	Net factor income from abroad	(-) 40
(viii)	Consumption of fixed capital	20
(ix)	Net imports	30

OR

Calculate net national disposable income from the following data:

S. No.	Particulars	(Rs in crores)
(i)	Gross domestic product at market price	2,000
(ii)	Net current transfers to rest of the world	(-) 200
(iii)	Net indirect taxes	150
(iv)	Net factor income to abroad	60
(v)	National debt interest	70
(vi)	Consumption of fixed capital	200
(vii)	Current transfers from Government	150

31. $C = 50 + 0.5 Y$ is the Consumption Function, where C is Consumption expenditure and Y is National Income and Investment expenditure is 2000 is an Calculate.

(6)

- i. Equilibrium level of National Income.
- ii. Consumption expenditure at equilibrium level of national income.

32. Complete the following table:

(6)

Consumption expenditure (Rs)	Savings (Rs)	Income (Rs)	Marginal propensity to save
100	50	150	
175	750		
250	100		
325	125		

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Class XII Economics

Delhi Board Paper Set 3 – 2013 Solution

Answer 1

Machinery and salary to the permanent staff are examples of fixed cost.

Cost of labour and raw materials are examples of variable cost.

Answer 2

Under the perfect competition market, AR is equal to MR at all levels of output. Individual buyers cannot influence the market price of a good by varying their demands, and hence, $AR = MR$, which is equal to price.

Answer 3

Market demand is the horizontal summation of the individual demand in the market. It indicates various quantities of a good which all the consumers in the market are willing to buy at different possible prices of a good at a point of time.

Answer 4

Marginal cost is an additional cost to the total cost incurred when one more unit of good is produced.

Answer 5

When the percentage change in demand for a good is less than the percentage change in its price, the demand for a good is inelastic.

Answer 6

Law of diminishing marginal utility means that as more units of a good are consumed, the marginal utility received from the consumption of every additional unit of the good declines.

Units of Commodity X	Total Utility (TU) (utils)	Marginal Utility (MU) $MU_n = TU_n - TU_{n-1}$ (utils)
1	50	$50 - 0 = 50$
2	80	$80 - 50 = 30$
3	100	$100 - 80 = 20$
4	110	$110 - 100 = 10$
5	110	$110 - 110 = 0$
6	105	$105 - 110 = -5$

In the given schedule, marginal utility of the second unit is 30 utils and it decreases to 20 and 10 for the consumption of the 3rd and 4th unit of the marginal utility, respectively. It becomes zero for the consumption of the 5th unit, and it becomes negative for the 6th unit. Hence, the

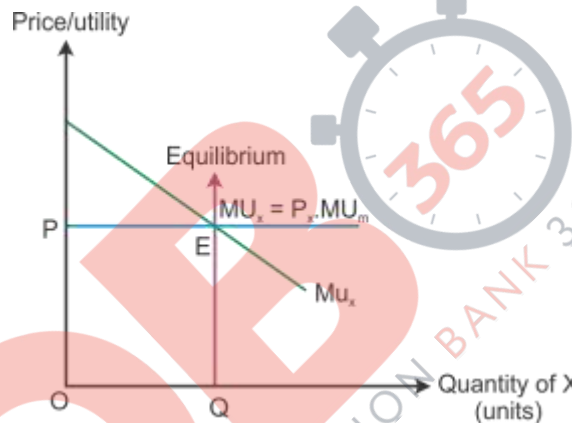
marginal utility will decrease with additional units of consumption.

OR

Given the price of the good, a consumer will decide the amount of goods to buy. So, the consumer compares the price of the good with its utility. A rational consumer will be at equilibrium only when the marginal utility is equal to the price paid for the good.

$$MU_X = P_X$$

The marginal utility is greater than the price paid for the good, i.e. $MU_X > P_X$ implies that the consumer is not in equilibrium and buys more of a good. While the marginal utility is lesser than the price paid for the good, i.e. $MU_X < P_X$ implies that the consumer is not in equilibrium and buys less of that good.



In the diagram, OP is the price of the good given on the Y-axis and OQ is the utility given on the X-axis. The marginal utility curve MU_X slopes downwards because the marginal utility diminishes with every additional consumption of X. The consumer reaches equilibrium at Point E, where the marginal utility is equal to the price paid for the good.

Answer 7

Normal Goods: Normal goods refer to those goods that share a positive relationship with income. That is as the income increases, demand for normal goods increases. On the other hand, as the income falls, the demand for normal goods falls. For example, clothing is a normal good. As income increases, the demand for clothing increases.

Inferior Goods: Inferior goods refer to those goods that share an inverse relationship with income. That is as against normal goods, as the income increases, the demand for inferior goods falls and vice-versa. For example, coarse cereals are inferior goods. As the income increases, the consumer reduces its demand for coarse cereals and instead shifts its demand towards superior quality cereals.

Answer 8

$$e_s = 0.8$$

$$\Delta P = 50\%$$

$$\Delta Q = ?$$

$$e_s = \frac{\text{Percentage change in quantity supplied}}{\text{Percentage change in price}}$$

$$0.8 = \frac{\Delta Q}{50}$$

$$\Delta Q = 40\%$$

Percentage change in quantity supplied is 40%

Answer 9

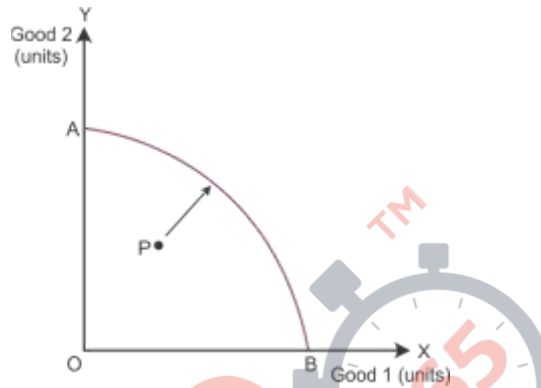
Output (Units)	Average Product $AP = \frac{TP}{L}$	Marginal Product (units) $MP_n = TP_n - TP_{n-1}$	Total Product $TP = AP \times L$ or $TP_n = TP_{n-1} + MP_n$
1	16	-	16 (1 × 16)
2	20	24 (40 - 16)	40 (2 × 20)
3	20 (60 ÷ 3)	20	60 (40 + 20)
4	18	12 (72 - 60)	72 (4 × 18)
5	16 (80 ÷ 5)	8	80 (72 + 8)
6	14	4 (84 - 80)	84 (6 × 14)

Answer 10

Monopolistic competition is a form of market in which there are many sellers of the product, but the product of each seller is different from one another. There is no barrier to the entry and exit of new firms. They earn neither abnormal profit nor loss in the long run. However, the entry of firms is not as easy in perfect competition. As there are many rivals and close substitutes of products in the market, a monopolistic firm cannot have full control over the price. If the price exceeds the minimum of short run average cost, then the new firms are attracted into the industry. Similarly, if the price exceeds the minimum of long run average cost, then the new firms are attracted into the industry. On the other hand, if the supply exceeds with the entry of new firms in the market, then the price will decline. At the low level of price, certain firms exit the industry to avoid any loss. Then, the supply will decrease with the exit of firms and the price will rise to the minimum cost to earn normal profit. This situation prevails because of free entry and exit of firms.

Answer 11

When an economy is producing below its potential level because of unemployment, it implies that the economy is not functioning on the PPC but below the PPC, i.e. Point P as shown in the below diagram. Given the resources and technology, along with the initiation of government schemes, the employment level will increase. Therefore, Point P will **shift nearer to PPC**.



Answer 12

The producer's equilibrium refers to the situation in which he maximises his profits. A producer strikes equilibrium when two conditions are satisfied:

- MR = MC
- MC is rising or the MC curve cuts the MR curve from below.

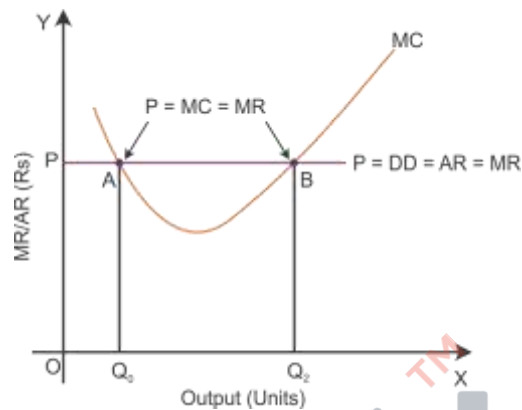
MR, MC Schedule and Producer's Equilibrium:

Output	MR	MC
1	10	8
2	10	7
3	10	6
4	10	8
5	10	10
6	10	13

Here, it is assumed that price (AR) is constant, so that MR is constant, i.e. = Rs 10 under perfect competition. This table indicates that the two conditions of equilibrium are satisfied only when 5 units of output are produced. It is here that (i) MR = MC = Rs 10 and (ii) MC is rising.

Equilibrium is not struck when MR > MC. In such a situation, producing an additional unit would add more to TR than to TC. This implies that the gap between TR and TC tends to widen or that profits are still to be maximised.

In the diagram, the MC curve intersects the price line (or MR) at two points—A and B. Here, Condition 1 of profit maximisation $MR = MC$ is satisfied at these two points. Next, let us consider Condition 2.



i. Intersection point at A:

At intersection point A, price is equal to MC but MC is falling, and it is a downward-sloping curve. If the output is increased more than the OQ_1 level, then the price is more than MC. This means that the firm can increase the production more than the OQ_1 level of output to maximise profit.

ii. Intersection point at B:

At intersection point B, if the output is increased more than output OQ_2 , the price is more than MC. This states that the firm can increase the production more than the OQ_2 level of output to maximise profit. While if the firm produces higher level of output than OQ_2 , then the price is less than MC. This clearly states that high profit is possible by decreasing the output level to OQ_2 . Thus, Point B is the producer's equilibrium and OQ_2 is the output level to maximise profit by satisfying the two necessary conditions (i) Price = MC and (ii) the MC curve is rising.

Answer 13

$$e_d = \frac{\text{Percentage in quantity demanded of the good}}{\text{Percentage in price of the good}}$$
$$0.4 = \frac{\text{Percentage in quantity demanded of the good}}{5}$$

$$\text{Percentage in quantity demanded of the good} = 0.4 \times 5 = 2$$

Hence, as the price increases by 5%, the quantity demanded falls by 2%.

OR

Factors affecting the price elasticity of demand are:

i. Availability of substitutes:

The price of a good falls in relation to its substitute. Consumers can easily switch from one good to another even if there is only a small change in price and so its demand will

increase. Hence the price elasticity of demand for commodities having close substitutes is relatively high.

- ii. Nature of good: A good can be necessary, comfort or luxury good as per the preferences of the consumers. The demand for necessary good does not fluctuate with the price as these goods are basic for day-to-day life. Hence it is inelastic. The demand for comfort and luxury goods are elastic as the consumption of these goods can be postponed.

Answer 14

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.

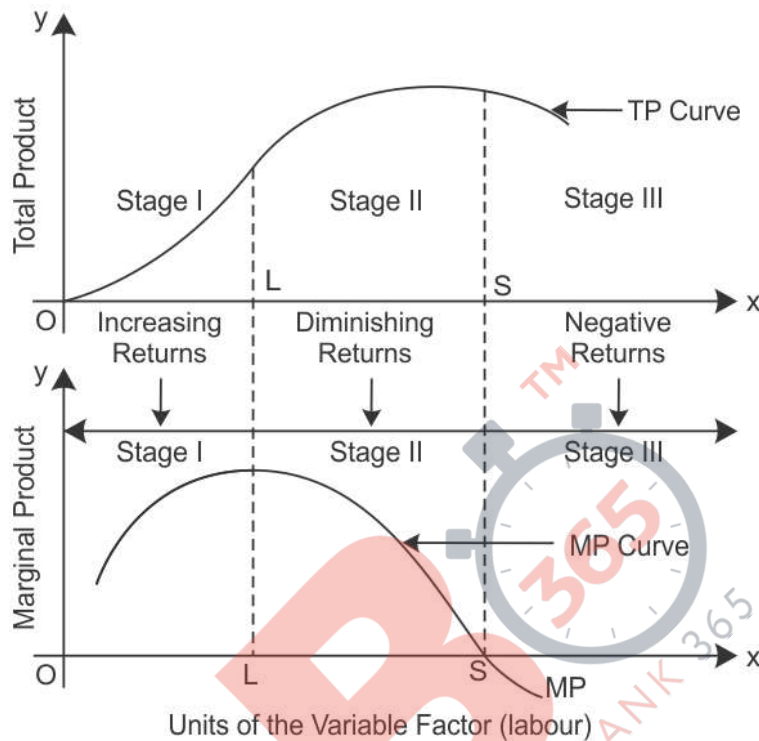
Units of Fixed Factor	Units of Variable Factor	TP	MP	Stages
1	1	4	4	Increasing MP (Increasing returns to a factor)
1	2	12	8	
1	3	24	12	
1	4	32	8	Diminishing MP (Diminishing returns to a factor)
1	5	34	2	
1	6	34	0	
1	7	30	-4	
1	8	21	-9	Negative MP (Negative returns to a factor)
1	9	10	-11	

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 4th 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 9th unit is employed.



Answer 15

Conditions of consumer's equilibrium using indifference curve analysis:

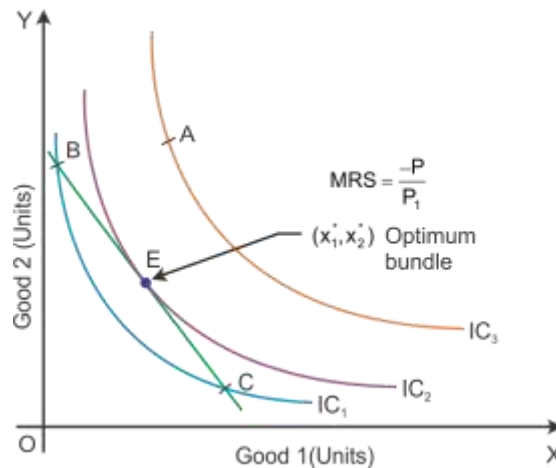
A consumer will strike his equilibrium at the point where the budget line is tangent to an indifference curve.

Slope of IC = Slope of price line

$$\left| \frac{-dy}{dx} \right| = |MRS| = \left| \frac{-P_1}{P_2} \right|$$

Equality of marginal rate of substitution and ratio of prices: When the budget line is tangent to an indifference curve at a point, the absolute value of the slope of the indifference curve and of the budget line are equal at that point, i.e. MRS is equal to the price ratio. The slope of the budget line is the rate at which the consumer can substitute one good for the other in the market. At the optimum, the two rates should be the same. Thus, a point at which the MRS is greater, the price ratio cannot be optimum, and when the MRS is less than the price, the ratio cannot be optimum.

The equilibrium can be represented as follows:



In the diagram, Point E shows the consumer's equilibrium where the budget line is tangent to the indifference curve. Consumers' desire to purchase correspond to the consumer originally purchase, i.e. x_1^*, x_2^* shows the optimum bundle.

Consumer does not reach equilibrium condition at the following points:

At point B: $MRS > -\frac{P_1}{P_2}$

At Point A: $MRS > -\frac{P_1}{P_2}$

OR

(i) Price of Other Goods and Demand for the given Good

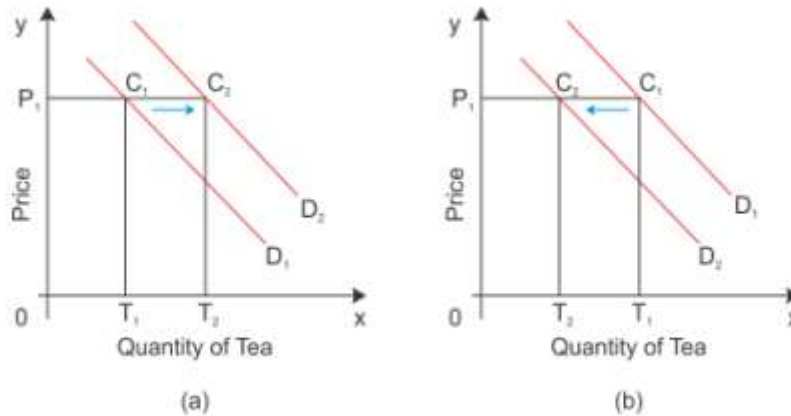
Demand for a commodity in relation to price of the substitute good

When the price of one good falls, it becomes cheaper in relation to another good. As a result, one good is substituted for the other good such as coffee and tea.

Assume tea and coffee are two substitute goods. D_1 is the demand curve for the demand of tea in diagram (a).

Increase in price of substitute good:

When the price of tea is OP_1 , the quantity demanded is OT_1 as shown in diagram (a). If there is an increase in the price of the substitute good coffee, then the demand curve for tea shifts to the right. Now, the consumer is willing to buy P_1C_2 quantity of tea which is equal to OT_2 . Greater the purchase of a commodity at its constant price points to a situation of increase or forward shift in the demand curve. The consumer demand curve shifts from D_1 to D_2 , consuming more of tea even when its price is constant.



Decrease in price of substitute good:

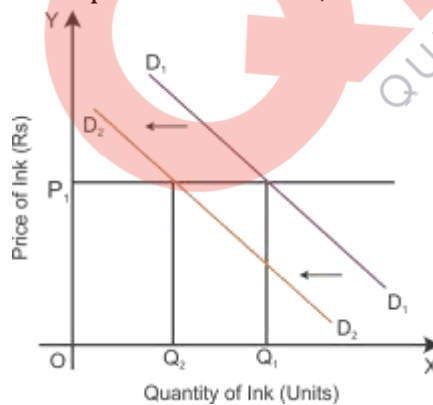
When there is a decrease in the price of the substitute good coffee, the demand curve for tea shifts to the left even when its price is constant. When the price of tea is OP_1 , the quantity demanded is OT_1 as shown in the diagram (b). Now, the consumer is willing to buy P_1C_2 quantity of tea which is equal to OT_2 . Thus, the consumer shifts from D_1 to D_2 , consuming less of tea even when the price of tea is constant. This is a situation of backward shift in the demand curve.

i. Demand for a commodity in relation to price of the complementary good

Complementary goods are purchased jointly such as ink and ink pens.

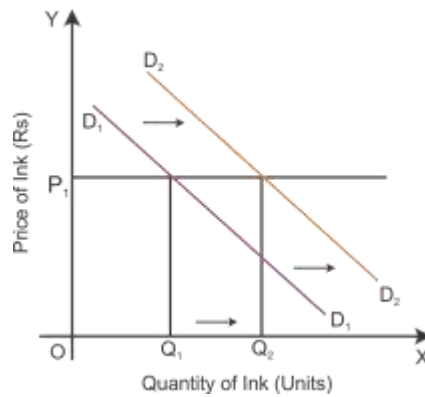
Increase in price of complementary good:

If there is an increase in the price of a good, then the demand for another good will decline. So the demand curve shifts parallel to the left, i.e. from D_1D_1 to D_2D_2 .



Decrease in price of complementary good:

If there is a decrease in the price of a good, then the demand for another good will increase. So the demand curve shifts parallel to the right, i.e. from D_1D_1 to D_2D_2 .



(ii) Income of the Buyer and the Demand for a Good.

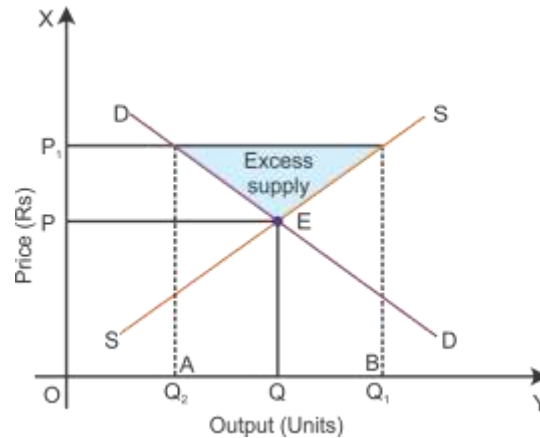
A change in the consumer's income has corresponding changes in the demand for different types of goods in the market. The effects of change in income on demand for different types of goods are as follows:

Normal goods are goods which have a **positive relationship** between income and quantity demanded. Assume that other things remaining constant, an increase in the consumer's income will lead to an increase in the quantity demanded and a decrease in the consumer's income will lead to a decrease in the quantity demanded.

Inferior goods are goods which have a **negative relationship** between income and quantity demanded. Assume that other things remaining constant, an increase in the consumer's income will lead to a decrease in the quantity demanded and a decrease in the consumer's income will lead to an increase in the quantity demanded.

Answer 16

- i. **False, a monopolist cannot sell any quantity he likes at a price.** As there are many rivals and close substitutes of products in the market, the monopolistic firm cannot have full control over the price. A monopolistic firm has partial control over price only through product differentiation. These products cause high elasticity of demand for the firm's product because of the availability of a large number of close substitutes.
- ii. **True, when equilibrium price of a good is less than its market price, there will be competition among the sellers.** In the diagram, the equilibrium price and quantity are OP and OQ. As the equilibrium price is low for farmers, the government fixes the price floor, i.e. the price level increased from OP to OP₁ which leads to a decline in the quantity demand, and therefore, there is **excess supply** in the market. Here, the competition will increase among the sellers, and hence, the price will come down to the equilibrium point where market demand is equal to market supply.



Answer 17

Sales tax and custom duty are examples of indirect taxes.

Answer 18

When there is an increase in foreign direct investment, the supply of foreign currency increases, and thus, the price of foreign exchange falls.

Answer 19

Emissions from driving contribute significantly to global warming. This leads to poor air quality and it contributes to significant health problems. People who breathe in this polluted air are at a higher risk for asthma and damage to the reproductive system. Thus, it affects the health of the people, which in turn reduces the welfare of the nation.

Answer 20

A government budget is a financial statement of expected receipts and payments of government during a particular period of time, such as a financial year 1st April XX–31st March XX.

Answer 21

Demand deposits are not for any specific period of time. They can be withdrawn as and when required. These deposits are chequable deposits.

Answer 22

Basis of Difference	Capital Expenditure	Revenue Expenditure
Meaning	A decline in the government liabilities and creates assets for the government	No decline in government liabilities and does not create assets for the government
Examples	Purchase of shares and bonds	Salaries, pensions and interest payments

Basis of Difference	Revenue Deficit	Fiscal Deficit
Meaning	Excess of revenue expenditure of the government over its revenue receipts	Excess of the total budget expenditure over total budget receipts net of borrowings
Significance	The regular receipts of the government are not enough to meet its regular expenditures	The borrowings of the government, i.e. the debt capital receipts of the government
Formula	Revenue deficit = Revenue expenditure - Revenue receipts	Fiscal deficit = Total budget expenditure - (Total budget receipts - borrowings) i.e. Fiscal deficit = Borrowings

Answer 23

The appreciation of domestic currency refers to an increase in the price of domestic currency related to foreign exchange. For example, \$1 = Rs 50 to \$1 = Rs 42 indicates that the goods from abroad will be cheaper, and hence, **a rise in the demand for imports.**

Answer 24

Basis of Difference	Balance of Trade	Balance on Current Account
Meaning	Record of visible transactions	Record of the visible as well as invisible and unilateral transactions
Components	Balance of exports and imports of all physical goods	Balance of visible trade, invisible trade and unilateral transfers
Nature of transactions	Records the transactions relating to physical goods	Records the transactions relating to goods, services and unilateral transactions

Answer 25

The barter system is a system where goods were exchanged for goods in the olden days. It lacks double coincidence of wants. A person with a particular good has to find a person who has the good of his wants, and he should also possess the good wanted by the other person. Hence, the exchange of goods is not possible without the double coincidence of wants.

The introduction of money resulted in the end of the barter system where goods were exchanged according to needs. Now, money acts as an intermediate in the exchange process, and thus, it is known as a medium of exchange. Anyone can exchange his goods for money and buy commodities which are required by him or his family.

For example, a fruit seller wants to sell his fruits in order to buy wheat. In the absence of money, he will have to look for some person who wants to sell wheat and buy fruits. This is not easy and always possible. However, in the case of availability of money as a medium of exchange, the fruit seller just has to find a buyer for his fruits. When the fruits are exchanged for money, he can now purchase wheat from the market.

Answer 26

Through the budgetary policy, the government can reallocate resources so that social and economic objectives can be met in the following ways:

- i. The government ensures productive expenditure to maximise the welfare of the nation with minimum level of profit.
- ii. The government regularises the activities of the private sector to provide social benefit to the poor.
- iii. The government impose taxes on socially unsafe goods such as alcohol and tobacco to shift resources to the production of socially essential goods.

Answer 27

$$NVA_{FC} = \text{Rs } 1,300$$

$$\begin{aligned} GDP_{MP} &= NVA_{FC} - \text{Subsidies} + \text{Consumption of fixed capital} \\ &= 1,300 - 60 + 80 = \text{Rs. } 1,320 \end{aligned}$$

As we know that

$$GDP_{MP} = \text{Sales} + \text{Change in stock} - \text{Intermediate cost}$$

$$\text{Sales} = GDP_{MP} - \text{Change in stock} + \text{Intermediate cost}$$

$$= 1,320 - (-50) + 700$$

$$= \text{Rs } 2,070$$

Answer 28

Banker to the government

The Central Bank is also a banker, agent and financial advisor to the government. As a banker, it manages government accounts across the country. It buys and sells securities on behalf of the government as an agent of the government. It helps the government in framing policies to regulate the money market by acting as an advisor to the government.

Answer 29

- i. Capital: Capital is a **stock variable** because it is a quantity measured at a particular period of time.
- ii. Saving: Saving is a **flow variable** because it is a quantity measured over a specified period of time (If it is given as savings, then it will be considered a stock concept which

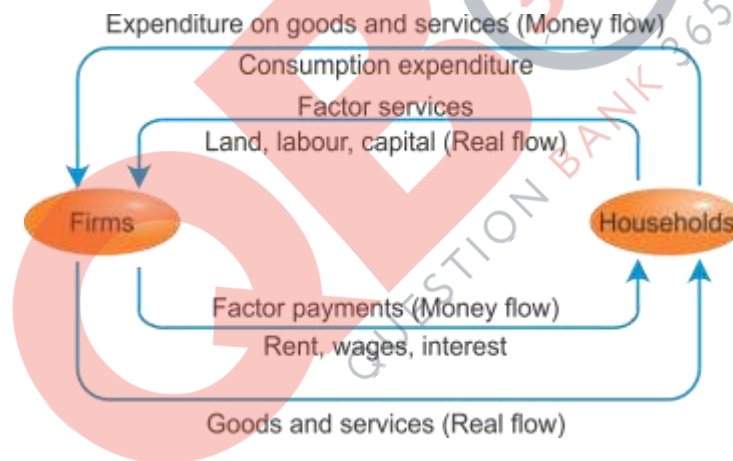
- accumulates money at a particular point of time).
- iii. Gross domestic product: Gross domestic product is a **flow variable** because it is a quantity measured over a specified period of time.
- iv. Wealth: Wealth is a **stock variable** because it is a quantity measured at a particular period of time. It includes accumulated past savings and income not spent.

OR

Circular Flow Model in a Two-Sector Economy

Circular flow of income refers to the unending flow of activities such as production, income generation and expenditure involved in all the sectors of the economy.

In a simple economy, there are the economic activities of firms and households. People from households render factor services to firms and firms hire factor services from households. Households spend their earned income completely on consumption. Products which are produced by firms are sold to consumers, assuming that there is no external trade and government in an economy.



In the diagram, factor services provided by households to firms are shown by inner arrows of the upper portion and factor payments made by firms to households are shown by inner arrows of the lower portion. With this income, households purchase goods and services of the firms which are shown by outer arrows of the upper portion and firms deliver goods and services to households as shown by outer arrows of the lower portion.

- Total production of goods and services by firms is equal to the consumption of goods and services by households.
- Factor payments by firms are equal to the factor incomes of the household sector.
- Consumption expenditure of the household sector is equal to the income of the household sector.
- Money flows are opposite to real flows because factor service flows from households to firms are real flows, and the factor payments made by firms to households are money flows.

- This circular flow model helps to estimate the national income of a country in the following ways:
Aggregate the income of all the factors of production (inner arrows of the lower portion) or
Aggregate the expenditure incurred by all the sectors (outer arrows of the upper portion)

Answer 30

$$\begin{aligned}\text{NNP}_{\text{FC}} &= \text{Private Final Consumption Expenditure} + \text{Government Final Consumption Expenditure} - \text{Net Imports} + \text{Gross Domestic Capital Formation} - \text{Consumption of Fixed Capital} - \text{NIT} + \text{NFIA} \\ &= 900 + 400 - 30 + 250 - 20 - 100 + (-40) \\ &= \text{Rs 1,360 crore}\end{aligned}$$

(Note: Change in stock is not considered as it is a part of the gross domestic capital formation)

OR

To calculate Net National Disposable Income

We know

$$\text{NNDP} = \text{NDP}_{\text{FC}} + \text{NIT} - \text{Net factor income to abroad} - \text{Net current transfers to rest of the world}$$

$$\text{NDP}_{\text{FC}} = \text{GDP}_{\text{MP}} - \text{Consumption of fixed capital} - \text{NIT}$$

$$\text{NDP}_{\text{FC}} = 2,000 - 200 - 150 = 1,650$$

By substituting this value in the given formula, we get

$$\text{NNDP} = 1,650 + 150 - 60 - (-200)$$

$$\text{NNDP} = 1,940 \text{ crore}$$

Answer 31

Given that

$$C = 50 + 0.5Y$$

$$I = 2,000$$

(i) Equilibrium level of National Income

At equilibrium level, $AD = AS$ or, $Y = C + I$

By substituting the values of C and I in the formula, we get

$$Y = 50 + 0.5Y + 2,000$$

$$Y - 0.5Y = 50 + 2,000$$

$$0.5Y = 2,050$$

$$Y = \frac{2,050}{0.5} = 4,100$$

Thus, equilibrium level of National Income is equal to 4,100.

(ii) Consumption expenditure at equilibrium level of National Income

$$C = 50 + 0.5Y$$

By substituting the value of national income at equilibrium level in the formula, we get

$$C = 50 + 0.5(4,100)$$

$$C = 50 + 2,050 = 2,100$$

Thus, consumption expenditure at equilibrium level of National income is equal to 2,100.

Answer 32

Consumption Expenditure (C)	Savings (s)	Income (Y = C + S)	Marginal Propensity to Consume $c = \frac{\Delta C}{\Delta Y}$
100	50	150	-
175	75	250 (175 + 75)	0.75 (75 ÷ 100)
250	100	350 (250 + 100)	0.75 (75 ÷ 100)
325	125	450 (325 + 125)	0.75 (75 ÷ 100)