ISC EXAMINATION PAPER - 2025
ECONOMICS
Class-12th
(Solved)

Maximum Marks: 80   *Time Allotted: Three Hours*   *Reading Time: Additional Fifteen Minutes*


Instructions to Candidates:
1. *You are allowed an additional fifteen minutes for only reading the question paper.*
2. *You must NOT start writing during reading time.*
3. *There are thirteen questions in the paper. All questions are compulsory.*
4. *This paper is divided into three sections: A, B and C.*
5. *Section A has sixteen subparts which are very short answer questions. Each question carries 1 mark.*
6. *While attempting Multiple Choice Questions in Section A, you are required to write only ONE option as the answer.*
7. *Section B has eight questions which are short answer questions. Each question carries 4 marks.*
8. *Section C has four questions which are long answer questions. Each question carries 8 marks.*
9. *Internal choices have been provided in two questions in Section B and in one question in Section C.*
10. *The intended marks for questions are given in brackets [ ].*

SECTION A − 16 MARKS

Question 1
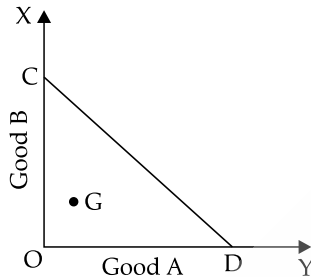
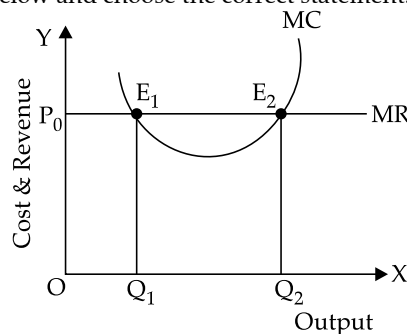**(i)**   **[1]**

In the diagram given above, CD is the budget line. What does the point G represent?
- **(a)** Combination of two goods on which a consumer spends her entire money income
- **(b)** Combination of two goods on which a consumer spends less than her money income
- **(c)** Combination of two goods on which a consumer spends greater than her money income
- **(d)** Consumer spends her entire money income either on Good A or Good B

(ii) Abhinav derives total utility of 11 utils after consuming 4 mangoes and 9 utils after consuming 6 mangoes. **[1]** What is his marginal utility on consuming the 6th mango?

- **(a)** 1 util   **(b)** 21 utils   **(c)** 10 utils   **(d)** −1 util

(iii) Law of Variable Proportions is **NOT** applicable when: **[1]**

- **(a)** all factor inputs increase in the same proportion.   **(b)** the time period is short.
- **(c)** all the units of variable input are equally efficient.   **(d)** technology remains constant.

(iv) Refer to the diagram given below and choose the correct statement. **[1]**

    (a) E₁ is the equilibrium point as MR = MC

    (b) E₁ and E₂ are equilibrium points as MR = MC

    (c) E₂ is the equilibrium point because MC > MR beyond this point.

    (d) E₂ is the equilibrium point because MC < MR beyond this point.

(v) Identify the correct statement with reference to the measures of money supply. **[1]**

    (a) M_3 includes M_2.

    (b) M_3 includes Time Deposits with commercial banks.

    (c) M_1 includes Time Deposits with commercial banks.

    (d) M_2 includes National Saving Certificates.

(vi) Suppose the total receipts are ₹1045 Cr. and total payments are ₹1526 Cr. in the Balance of Payments account of India. **[1]**

    In the above context, which one of the following can improve the Balance of Payments of India?

    (a) Indian tourists buying souvenirs in the foreign countries.

    (b) Foreign Institutional Investor (FII) buying shares of Indian companies.

    (c) Indian students joining foreign universities for higher education.

    (d) Value of the US dollar falling against the Indian rupee.

(vii) Which one of the following scenarios correctly represents a Degressive tax system? **[1]**

    (a) Ruhi paid income tax in three consecutive years at the rate of 10% on her income of ₹10,000, 15% on her income of ₹ 20,000 and 15% on her income of ₹30,000.

    (b) Goods and Service tax on gold ornaments is 3% and 18% on fine dining in restaurants.

    (c) Roshan was promoted to the position of Senior Manager and received a raise in his income. But he continued paying 10% of his income as tax.

    (d) Suhana paid TDS at a higher rate on her increased interest income in the current year as compared to the previous year.

(viii) Given below are two statements marked Assertion and Reason. Read the statements carefully and choose the correct option. **[1]**

    Assertion: Rise in price of burger at Burger Bliss raises the demand for burgers at Burger Heaven.

    Reason: There is a negative relationship between the demand for a good and the price of the complementary good.

    (a) Both Assertion and Reason are true and Reason is the correct explanation of Assertion.

    (b) Both Assertion and Reason are true but Reason is not the correct explanation of Assertion.

    (c) Assertion is true and Reason is false.

    (d) Both Assertion and Reason are false.

(ix) Given below are two statements marked Assertion and Reason. Read the statements carefully and choose the correct option. **[1]**

    Assertion: Commercial banks can deposit their surplus funds with RBI.

    Reason: A high reverse repo rate enables the commercial banks to earn an income.

    (a) Both Assertion and Reason are true and Reason is the correct explanation of Assertion.

    (b) Both Assertion and Reason are true but Reason is not the correct explanation of Assertion.

    (c) Assertion is true and Reason is false.

    (d) Both Assertion and Reason are false.

(x) With the help of a diagram, illustrate the effect of an increase in the price of the product shown in **Image A** on the demand for the product shown in **Image B**. **[1]**

Image A   Image B

(xi) The long run average cost curve is U shaped due to the Law of Variable Proportions. Defend or refute the statement with a reason. **[1]**

(xii) Amit withdrew ₹50,000 from his savings to invest in his own business. He bought a Xerox machine for ₹30,000 for his office the same day. Identify the explicit cost and the implicit cost in the above situation. **[1]**

(xiii) If Indian companies raise the wages in accordance with the Minimum Wage Act, it will lead to cost push inflation. Give a reason to support this statement. **[1]**

(xiv) Sagarika wants to buy a car worth ₹10 lakhs. She has only ₹3 lakhs and plans to borrow the remaining amount from the bank. **[1]**

Name and briefly explain the selective credit control measure that enables Sagarika to get maximum loan from the bank.

(xv) Why does the supply of foreign exchange increase with an increase in the foreign exchange rate? **[1]**

(xvi) What is meant by *primary deficit*? **[1]**

SECTION B − 32 MARKS

Question 2

(i) Ibrahim works as a mechanic and earns ₹5000 per month. To increase his family income, his wife and parents also begin to work. Over a period of time when his income increases to ₹20,000, Ibrahim asks his family members not to work and enjoy leisure. **[2]**

The phenomenon indicated in this situation does not conform to the Law of Supply. Give a reason to support this statement. Draw the supply curve based on the given situation.

(ii) When the price of potato chips falls from ₹40 to ₹20 per unit, its demand increases by 20 units. If the price elasticity of demand is (−) 0.5, calculate the quantity demanded of potato chips at ₹20. **[2]**

Question 3

(i) Study the schedule given below and explain the relation between Average Revenue and Marginal Revenue by giving a suitable reason. **[2]**

Units	Price	TR	AR	MR
1	15	15	15	15
2	14	28	14	13
3	13	39	13	11

(ii) With the help of a diagram, illustrate the effect of a simultaneous and proportional decrease in demand and supply on equilibrium price and quantity. **[2]**

Question 4

(i) Why is fixed cost a short run phenomenon? Draw the Total Fixed Cost curve. **[2]**

(ii) How do Total Product, Average Product and Marginal Product behave under the Law of Increasing Returns to a Factor? Briefly explain *one* reason for the operation of this law. **[2]**

Question 5

(i) Laxman & Sons is a leading producer of perfume among many other firms. Recently, it introduced a new fragrance and offered gift vouchers to the customers who bought this product. **[2]**

Identify the form of market and explain the feature implied in this situation.

(ii) Briefly discuss the situations when a perfectly competitive firm continues to produce even after facing losses in the short run. **[2]**

OR

(i) The main occupation of the villagers in a village is beekeeping. The villagers sell their produce only to firm X. **[2]**

(a) Identify the type of market prevalent here.

(b) Is it a buyer's market or a seller's market? Give a reason. **[2]**

(ii) Monopolistic competition is a blend of perfect competition and monopoly. Discuss the statement by giving two reasons. **[2]**

Question 6

Aditi deposits ₹1,000 in a bank which leads to an increase in money supply in the economy to the extent of ₹4,000. Name and explain the process of this increase in money supply. **[4]**

Question 7

(i) The Indian rupee fell 14 paisa to 83.91 against the US dollar on Wednesday amid outflow of foreign capital and volatile domestic equity markets. **[2]**

(Source(edited): The Pioneer, New Delhi, August 22, 2024)

The above situation would lead to a surplus in Balance of Payments account of India. Defend or refute the statement by giving a reason.

(ii) The government initiated the 'Make in India' programme to attract global investment in the Indian economy. Explain the impact of this programme on the Balance of Payments account of India. **[2]**

<p align="center">**OR**</p>

(i) In July 2024, India's retail inflation rate was 3.54%. Though it is falling yet it continues to persist. Explain how this would affect India's Balance of Payments. **[2]**

(ii) Tata Motors' purchase of iconic British luxury car maker Jaguar Land Rover ($2.3 billion) has proved to be a master stroke. **[2]**

<p align="right">*(Source (edited): https://economictimes.indiatimes.com)*</p>

State whether the above transaction will be recorded under the Debit side or the Credit side of Balance of Payments. Give a reason.

Question 8

(i) With reference to government budget, classify the following as Revenue receipt or Capital receipt. Give a valid reason for each. **[2]**
   (a) Financial help from a Multinational Corporation (MNC) for victims in a flood affected area.
   (b) Sale of shares of a Public Sector Undertaking (PSU) to a private company.

(ii) Budget 2024 outlined the sources of government revenue which comprised 19% from Income Tax, 18% from Goods and Service Tax and the remaining from borrowings. **[2]**

<p align="right">*(Source (edited): Business Standard, New Delhi)*</p>

Categorise the *two* types of taxes mentioned above. State *any one* difference between them.

Question 9

(i) Under the Gruha Lakshmi Scheme in Karnataka, the state government provides ₹2,000 monthly assistance to head female member in each family. Will this receipt be a part of National Income accounting? Explain. **[2]**

(ii) State whether the following are True or False. Give a reason for each. **[2]**

   (a) In a closed economy, GDP is always equal to GNP.

   (b) Money received by an Indian cricketer as Man of the Match does not contribute to the National Income of India.

<p align="center">**SECTION C − 32 MARKS**</p>
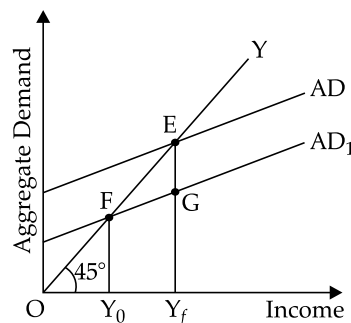
Question 10

(i) The price of chocolates increased during the Valentine week in February leading to an increase in the supply at a greater rate. **[2]**
Identify the price elasticity of supply and illustrate it on a diagram.

(ii) Robert consumes commodities X and Y. The price of commodity X is ₹2 and the price of commodity Y is ₹1. He has decided to spend ₹11 on these two commodities.

   (a) Using the following schedule, identify the combination of the two commodities X and Y that gives maximum satisfaction to Robert. **[4]**

Units	1	2	3	4	5	6
MU_x	16	14	12	10	8	6
MU_y	10	9	8	7	6	5

   (b) State the underlying law related to the schedule given above. Mention the equilibrium condition. **[2]**

Question 11

(i) What is *investment multiplier*? Briefly explain how it is related to Marginal Propensity to Consume (MPC). **[2]**

(ii) Refer to the diagram given below and answer the questions that follow.

(a) What does the gap EG represent? Explain. **[2]**

(b) Recommend *any two* fiscal measures and *any two* monetary measures to combat the situation referred to in subpart (a). **[4]**

Question 12

(i) Discuss the problem of double counting with the help of an example. How can it be solved? **[4]**

(ii) Calculate NDP$_{FC}$ and NNP$_{FC}$ on the basis of the following information. **[4]**

S.No.	Items	₹ (in crores)
(a)	Value of output of primary sector	1300
(b)	Value of output of other sectors	700
(c)	Raw materials purchased by primary sector	800
(d)	Raw materials purchased by the other sectors	600
(e)	Consumption of fixed capital	85
(f)	Subsidies	40
(g)	Indirect taxes	120
(h)	Factor income paid to the rest of the world	30
(i)	Factor income received from rest of the world	15

OR

(i) Discuss *two* reasons for **NOT** considering GDP a true indicator of economic welfare. **[4]**

(ii) Calculate GDP$_{MP}$ and National Income from the following information. **[4]**

S.No.	Items	₹(in crores)
(a)	Net fixed capital formation	500
(b)	Change in stock	60
(c)	Private final consumption expenditure	2500
(d)	Rent	250
(e)	Interest	200
(f)	Net Indirect Taxes	500
(g)	Net exports	30
(h)	Government final consumption expenditure	700
(i)	Net factor income from abroad	(−) 30
(j)	Consumption of fixed capital	120

Question 13

Read the passage given below and answer the questions that follow

In May 2016, the Ministry of Petroleum and Natural Gas (MOPNG), introduced the 'Pradhan Mantri Ujjwala Yojana' (PMUY) as a flagship scheme with an objective to make clean cooking fuel such as LPG available to the rural and deprived households. Under the Union Budget for the Financial year 2021-22, provision for release of additional 1 Crore LPG connections was made. In this phase, special facility was given to migrant families.

LPG belongs to a market form where small number of competitors produce a relatively homogenous product and are aware of one another's presence. To survive in the market, they have to match one another's marketing strategy which sometimes influences the prices of their own products.

(Source (edited): www.myscheme.gov.in)

(i) Identify the form of market referred to in the above passage. Name *any two* industries which come under the same market form. **[2]**

(ii) Explain *any two* important features of the market form referred to in the passage. **[2]**

(ii) Briefly discuss the nature of demand curve in this form of market. **[2]**

(iv) Distinguish between perfect competition and imperfect competition on the following basis: **[2]**

(a) Nature of product

(b) Nature of demand curve

Answers

SECTION – A

(i) Option (b) is correct

Explanation: Point G lies inside the budget line CD, which means that the consumer is not spending all of their available income. Instead, they are purchasing a combination of Goods A and B that costs less than their total money income.

(ii) Option (d) is correct

Explanation: From the given data:
- Total utility after consuming 4 mangoes = 11 utils
- Total utility after consuming 6 mangoes = 9 utils

Change in Total Utility:

$\Delta TU = 9 - 11 = -2$ utils

Change in Quantity:

$\Delta Q = 6 - 4 = 2$ mangoes

Now, calculating the Marginal Utility:

$MU = \dfrac{-2}{2} = -1$ utils

Thus, Abhinav's marginal utility on consuming the 6th mango is -1 utils, indicating disutility or dissatisfaction.

(iii) Option (a) is correct

Explanation: The Law of Variable Proportions examines how output changes when only one input (e.g., labour) is varied while others (e.g., land, capital) remain fixed. However, if all factor inputs increase in the same proportion, the situation falls under the Law of Returns to Scale, not the Law of Variable Proportions.

(iv) Option (c) is correct

Explanation: In the given diagram, equilibrium is determined by the Marginal Cost (MC) = Marginal Revenue (MR) condition. However, for stable equilibrium, the MC curve must be rising after the point of intersection (i.e., MC > MR beyond the point).

At E_1, MC = MR, but MC is still decreasing, making it an unstable equilibrium.

At E_2, MC = MR and MC is increasing beyond this point (MC > MR), ensuring stable equilibrium.

Thus, E_2 is the correct equilibrium point.

(v) Option (b) is correct

Explanation: M_3 (Broad Money)

$M_3 = M_1 +$ Time Deposits with Commercial Banks
- Includes everything in M_1 plus time deposits (fixed and recurring deposits) with banks.
- It is the most widely used measure of money supply in India.

(vi) Option (b) is correct

Explanation: FII investments bring foreign exchange into India because foreign investors buy Indian stocks using dollars or other foreign currencies. This increases India's foreign currency reserves, helping reduce the BoP deficit.

(vii) Option (c) is correct

Explanation: This is a degressive tax because the tax rate does not increase with higher income. Even though his income has increased, he continues to pay the same flat tax rate of 10%, meaning his effective tax burden is lower compared to his income.

(viii) Option (b) is correct

Explanation: The Assertion is true, as a rise in the price of burgers at Burger Bliss leads consumers to switch to Burger Heaven, a substitute good. The Reason is also true, as complementary goods have a negative price-demand relationship, but it does not explain the Assertion, which is about substitutes, not complements.

(ix) Option (a) is correct

Explanation: Commercial banks deposit their surplus funds with the RBI under the Reverse Repo Rate, making the Assertion true. A higher Reverse Repo Rate increases the income earned by banks on these deposits, correctly explaining the Assertion.

(x) An increase in the price of the Car 1 (Image A) will lead to a rise in the demand for the Car 2 (Image B) as they are substitute goods, causing the demand curve for the Car 2 to shift rightward.
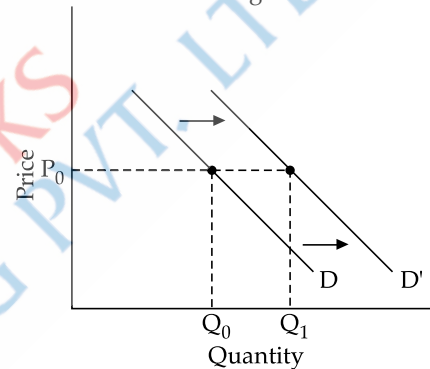
(xi) The statement is refuted because the long-run average cost (LRAC) curve is U-shaped due to economies and diseconomies of scale, not the Law of Variable Proportions, which applies to the short run.

(xii) **Explicit Cost:** ₹30,000 (cost of the Xerox machine).

Implicit Cost: ₹50,000 (opportunity cost of withdrawing savings, i.e., the potential interest or return he could have earned).

(xiii) An increase in wages as per the Minimum Wage Act raises production costs for businesses, leading to higher prices for goods and services, which contributes to cost-push inflation.

(xiv) The selective credit control measure applicable in this case is the Margin Requirement.

Explanation: Margin requirement refers to the percentage of the loan amount that borrowers must finance themselves while the rest is covered by the bank. A lower margin requirement set by the central bank allows borrowers like Sagarika to obtain a higher loan amount, reducing the portion they need to pay upfront.

(xv) The supply of foreign exchange increases with a rise in the foreign exchange rate because higher rates make exports, remittances and foreign investments more attractive, leading to greater inflows of foreign currency.
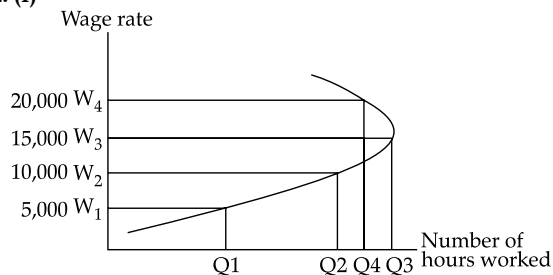
(xvi) Primary deficit refers to the fiscal deficit minus interest payments on past borrowings. It indicates the government's total borrowing needs excluding interest obligations.

Formula:

Primary Deficit = Fiscal Deficit – Interest Payments

SECTION – B

2. (i)

Here is the backward-bending supply curve of labour based on the given situation. Initially, as income increases, the labour supply also increases. In this case, the supply curve initially slopes upwards (higher wages leading to more labour supply) but bends backward at higher wage levels, showing a reduction in labour supply as income increases. However, beyond a certain level (20,000), labour supply decreases as Ibrahim asks his family to stop working and enjoy leisure. This demonstrates how higher income can lead to a reduction in labour supply, deviating from the law of supply.

(ii) The formula for price elasticity of demand (E_d) is:

$$E_d = \frac{\%\Delta Q}{\%\Delta P}$$

Rearranging to find the initial quantity (Q_1):

$\%\Delta Q = E_d \times \%\Delta P$

$$\frac{Q_2 - Q_1}{Q_1} = E_d \times \frac{P_2 - P_1}{P_1}$$

Given:
$E_d = 0.5$,
$P_1 = 40$, $[P_2 = 20]$
$Q_2 - Q_1 = 20$
Now, solving for Q_1:

$$\frac{20}{Q_1} = -0.5 \times \frac{20 - 40}{40}$$

$$\frac{20}{Q_1} = -0.5 \times \left(\frac{-20}{40}\right)$$

$$\frac{20}{Q_1} = -0.5 \times (-0.5)$$

$$\frac{20}{Q_1} = 0.25$$

$$Q_1 = \frac{20}{0.25} = 80$$

Thus, the quantity demanded at $P_2 = 20$ is:
$Q_2 = Q_1 + 20 = 80 + 20 = 100$

3. (i) Relation between Average Revenue (AR) and Marginal Revenue (MR):

**From the given schedule, we observe the following:**

1. AR is declining as more units are sold (from 15 to 13).
2. MR is also declining but at a faster rate than AR (from 15 to 11).

***Explanation*:**
• When AR (price per unit) falls, MR also decreases.
• In this case, MR is less than AR, which indicates that the firm is following a downward-sloping demand curve in an imperfectly competitive

market (such as monopoly or monopolistic competition). MR falls faster than AR because to sell an additional unit, the firm must reduce the price for all previous units, leading to a greater reduction in revenue from earlier sales.

(ii) When both demand and supply decrease in an equal proportion, the price will remain the same but the equilibrium quantity will decrease.

Decrease in Demand = Decrease in Supply
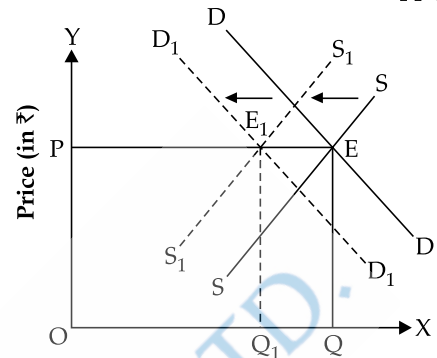
Quantity Demanded and Supplied (in Units)

4. (i) Fixed cost is a short-run phenomenon because it remains unchanged regardless of the level of output and cannot be altered in the short run. These costs, such as rent, salaries and interest payments, must be incurred even if production is zero. However, in the long run, all costs become variable as firms can adjust their inputs.
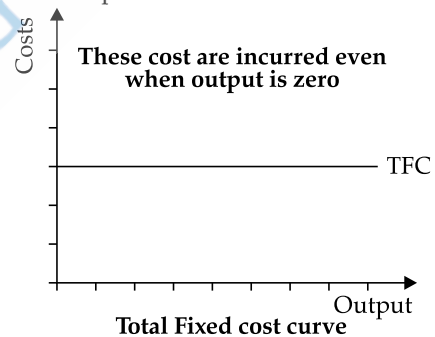
Total Fixed cost curve

(ii) Under the Law of Increasing Returns to a Factor, the behaviour of Total Product (TP), Average Product (AP) and Marginal Product (MP) is as follows:
• Total Product (TP) increases at an increasing rate.
• Marginal Product (MP) rises and reaches its maximum.
• Average Product (AP) also increases but at a slower rate than MP.

Reason: This occurs due to better specialisation and division of labour, which enhances efficiency and output per unit of the variable factor.

5. (i) The form of market in this situation is Monopolistic Competition.

Feature implied:

Non-price Competition: Instead of competing solely on price, firms in monopolistic competition often use advertising, promotions and other strategies to differentiate their products. Offering gift vouchers is a classic example of non-price competition to attract customers and build brand loyalty.

(ii) If P > AVC but P < ATC, then the firm continues to produce in the short-run, making economic

losses. However, If P < AVC, then the firm stops producing as the price is not sufficient enough to cover the variable cost and the firm incurs its fixed costs.

OR

(i) (a) The type of market prevalent here is monopsony, where there is only one buyer (Firm X) and multiple sellers (villagers).

(b) It is a buyer's market because Firm X, being the sole buyer, has greater control over the price and purchasing conditions, giving sellers limited bargaining power.

(ii) Monopolistic competition is considered a blend of perfect competition and monopoly because it shares characteristics of both market structures.

1. **Large Number of Sellers (Like Perfect Competition):** Many firms compete in the market, and no single firm has complete control over the industry, similar to perfect competition.

2. **Product Differentiation (Like Monopoly):** Each firm offers a differentiated product through branding, quality, or features, allowing them to have some monopoly power in pricing.

6. The process that leads to an increase in the money supply is called the Credit Creation process by commercial banks.

Explanation: Aditi deposits ₹1000 in the bank, which becomes a part of the bank's primary deposits. Banks are required to keep a fraction of the deposit as Cash Reserve Ratio (CRR) with the Reserve Bank of India (RBI) and can lend out the remaining amount. Assuming the Reserve Ratio is 25%, the bank keeps ₹250 and lends out ₹750. The borrowed money is deposited back into the banking system, and the process continues.

Using the Money Multiplier Formula:

Total Money Supply

$$= \frac{1}{\text{Reserve Ratio}} \times \text{Initial Deposit}$$

$$= \frac{1}{0.25} \times 1,000 = 4,000$$

This results in an increase in money supply to ₹4000, even though the original deposit was only ₹1000.

7. **(i)** Defend the statement

A currency depreciation can help improve a country's current account balance by reducing imports and increasing exports, potentially leading to a positive impact on the overall balance of payments.

(ii) The 'Make in India' programme aims to attract global investment and boost domestic manufacturing, which can positively impact India's Balance of Payments (BoP) account in the following ways:

(a) **Increase in Capital Inflows**: Foreign Direct Investment (FDI) and Foreign Institutional Investment (FII) inflows rise as global companies invest in Indian industries. This improves the Capital Account surplus.

(b) **Improvement in Trade Balance**: By encouraging domestic production, the programme reduces dependency on imports and promotes exports. This leads to a lower trade deficit or even a surplus in the Current Account.

OR

(i) A persistent retail inflation rate of 3.54% in India, even though declining, can impact India's Balance of Payments (BoP) in the following ways:

(a) **Impact on Exports**: Inflation increases the cost of production, making Indian goods and services less competitive in global markets. This could reduce exports and widen the Current Account Deficit (CAD).

(b) **Impact on Imports**: If domestic prices rise, consumers and businesses may increase imports of cheaper foreign goods, further worsening the trade balance.

(c) **Capital Outflows:** Inflation though falling but persistent, may discourage foreign investment, both direct and portfolio, due to concerns about inflation eroding profits and currency depreciation, potentially leading to capital outflows.

(ii) Tata Motors' purchase of Jaguar Land Rover (JLR) for $2.3 billion will be recorded on the debit side of India's Balance of Payments (BoP).

Reason: This transaction represents an outflow of foreign exchange from India to the UK, as Tata Motors is making a payment to acquire a foreign company. Such capital outflows are recorded as debits in the Capital Account of the BoP.

8. (i) Classification of Government Receipts:

Transaction	Type of Receipt	Reason
(a) Financial help from an MNC for flood victims	Revenue Receipt	This is a one-time grant that does not create any liability or reduce government assets. It is a non-recurring income for the government.
(b) Sale of shares of a Public Sector Undertaking (PSU) to a private company	Capital Receipt	The sale of PSU shares leads to the reduction of government ownership in public enterprises, affecting assets rather than income.

(ii) Categorisation of Taxes:

1. Income Tax – Direct Tax
2. Goods and Services Tax (GST) – Indirect Tax

Direct Tax	Indirect Tax
The burden of the tax cannot be shifted; it is paid directly by the individual or entity on whom it is levied. **Example:** Income Tax	The burden of the tax can be shifted from one person to another, usually from producers to consumers. **Example:** GST

9. (i) No, the ₹2000 monthly assistance provided under the Gruha Lakshmi Scheme will not be a part of National Income accounting.

Reason: This payment is a transfer payment, as it is provided by the government without any productive activity in return. Transfer payments are not included in national income since they do not reflect the production of goods or services.

(ii) (a) True

Reason: In a closed economy, there are no international transactions (no exports, imports or foreign investments). Since Net Factor Income from Abroad (NFIA) is zero, Gross Domestic Product (GDP) equals Gross National Product (GNP).

(b) True

Reason: The money received by an Indian cricketer as Man of the Match does not contribute to the National Income of India because it is considered a transfer payment. National income accounts focus on the value of goods and services produced within a country, and transfer payments (such as prizes, grants, or subsidies) do not reflect production.

SECTION – C

10. (i) The situation describes a scenario where the supply of chocolates increases at a greater rate in response to a price increase during Valentine week. This suggests that the Price Elasticity of Supply (PES) is greater than 1, meaning the supply is highly elastic.

Here is a graphical representation of the highly elastic supply scenario where the supply of chocolates increases significantly in response to a price rise during Valentine week.
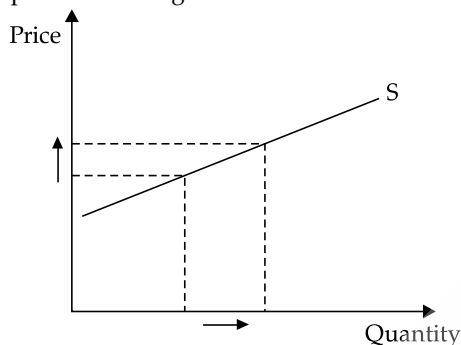
(ii) (a) Optimal Combination for Maximum Satisfaction

Robert should allocate his ₹11 budget according to the Law of Equi-Marginal Utility, which states that utility is maximised when:

$$\frac{MU_X}{P_X} = \frac{MU_Y}{P_Y}$$

Given:

- Price of X (P_X) = ₹2
- Price of Y (P_Y) = ₹1,
- Budget = ₹11

We Calculate the Marginal Utility per Rupee (MU/P) for each unit:

Units	MU_X	MU_X/P_X $(MU_X/2)$	MU_Y	MU_Y/P_Y $(MU_Y/1)$
1	16	8	10	10
2	14	7	9	9
3	12	6	8	8
4	10	5	7	7
5	8	4	6	6
6	6	3	5	5

Allocation of ₹11 for Maximum Satisfaction:

- Buy 3 Units of X → Cost = 3 × ₹2 = ₹6
- Buy 5 Units of Y → Cost = 5 × ₹1 = ₹5
- Total expenditure = ₹6 + ₹5 = ₹11

At this combination:

$$\frac{MU_X}{P_X} = \frac{MU_Y}{P_Y} = 6$$

Thus, this combination provides maximum satisfaction.

(b) Underlying Law and Equilibrium Condition

The schedule follows the Law of Equi-Marginal Utility, which states that a consumer achieves equilibrium when the ratio of marginal utility to price is equal for all goods:

$$\frac{MU_X}{P_X} = \frac{MU_Y}{P_Y}$$

At equilibrium, the consumer distributes expenditure in such a way that the last rupee spent on each commodity gives equal marginal utility.

11. (i) The investment multiplier (K) measures the effect of an initial increase in investment on the overall national income. It is given by the formula:

$$K = \frac{1}{1 - MPC}$$

There exists a direct relation between MPC and multiplier. The higher the value of MPC, the higher the value of the multiplier.

(ii) (a) The gap EG represents a deflationary gap. The deflationary gap is the gap showing a deficient of current aggregate demand over aggregate supply at the level of full employment. It is called deflationary because it leads to deflation (continuous fall in prices).

(b) Recommendations to combat the deflationary gap:

Fiscal Measures:

(a) Decrease in Taxes: To curb the deflationary gap the government may decrease the taxes. This may increase the purchasing power in the hands of the people which in turn may increase the Aggregate Demand in the economy to bring it equal to the Aggregate Supply.

(b) Increase in Government Expenditure: To curb the deflationary gap the government may increase its expenditure. It increases the money income of the people. This may again increase the purchasing power in the hands of the people which in turn may increase the Aggregate Demand in the economy to bring it equal to the Aggregate Supply.

Monetary Measures:

Bank rate – In case of Deflation, the Central Bank reduces the bank rate to increase the supply of money in the economy. Reduction in bank rate increases the money creation power of Commercial Banks and also decreases the market rate of interest which induces the public to borrow more. The aggregate demand increases and the deflation is corrected.

Open Market Operations (OMO) – In a situation of deficient demand leading to deflation, the Central Bank purchases government securities and bonds from a Commercial Bank. With the purchase of these securities, the power of Commercial Bank of giving loans increases, which will control deficient demand.

12. (i) Problem of Double Counting

Double counting occurs when the value of intermediate goods is included in the calculation of national income along with the final goods, leading to an **overestimation** of Gross Domestic Product (GDP). This distorts the actual value of economic output and can misrepresent the level of production in an economy.

Example:

Suppose a farmer sells wheat to a flour mill for ₹10, the mill sells flour to a baker for ₹20, and the baker sells bread to the final consumer for ₹30. If

we count all transactions, the total value would be ₹10 + ₹20 + ₹30 = ₹60, which is incorrect because the value of intermediate goods (wheat and flour) is being counted multiple times. The correct value of production should be only ₹30, the price paid by the final consumer.

Double counting can be avoided by the following ways:

1. **Final Goods Approach:** Only count the value of final goods and services in GDP. In the above example, only the bread's value (₹30) should be included.

2. **Value-Added Method:** Include only the additional value added at each stage of production:
   - Farmer: ₹10
   - Flour mill: ₹10 (₹20 – ₹10)
   - Baker: ₹10 (₹30 – ₹20)
   - Total GDP = ₹30

By using these methods, we can avoid double counting and ensure an accurate measurement of national income.

(ii) Calculation of NDP at Factor Cost (NDP_{FC}) and NNP at Factor Cost (NNP_{FC})

Step 1: Calculate Net Domestic Product at Factor Cost (NDP_{FC})

NDP at Factor Cost is calculated using the formula:

$NDP_{FC} = GDP_{MP} -$ Depreciation – Indirect Taxes + Subsidies

Step 2: Calculate Gross Domestic Product at Market Price (GDP_{MP})

GDP_{MP} = Value of Output of Primary Sector + Value of Output of Other Sectors–Raw Materials Purchased

$GDP_{MP} = (1300 + 700) – (800 + 600) = 600$

Step 3: Apply the Formula for NDP_{FC}

$NDP_{FC} = 600 – 85 – 120 + 40 = 435$

Step 4: Calculate Net National Product at Factor Cost (NNP_{FC})

NNP at Factor Cost is calculated as:

$NNP_{FC} = NDP_{FC} +$ Factor Income Received from Rest of the World − Factor Income Paid to Rest of the World

$NNP_{FC} = 435 + 15 – 30$

$NNP_{FC} = 420$

$NDP_{FC} = ₹435$ crores

$NNP_{FC} = ₹420$ crores

OR

(i) 1. Exclusion of Non-Market Activities GDP only accounts for goods and services traded in the market, ignoring unpaid work such as household chores, volunteer services and caregiving. These activities contribute significantly to societal well-being but are not reflected in GDP calculations.

2. **Environmental Degradation and Negative Externalities:** Economic activities that increase GDP may also lead to pollution, deforestation and resource depletion. While GDP rises, environmental damage can reduce the quality of life, making it an incomplete measure of economic welfare.

(ii) Calculation of GDP_{MP} and National Income

Step 1: Calculate GDP at Market Price (GDP_{MP})

Formula:

GDP_{MP} = Private Final Consumption Expenditure + Government Final Consumption Expenditure + Gross Investment + Net Exports

where Gross Investment = Net Fixed Capital Formation + Change in Stock + Consumption of Fixed Capital

$GDP_{MP} = 2500 + 700 + (500 + 60 + 120) + 30$

$= 2500 + 700 + 680 + 30 = 3910$ crores

Step 2: Calculate National Income (NNP_{FC})

Formula:

$NNP_{FC} = GDP_{MP} -$ Net Indirect Taxes + Net Factor Income from Abroad − Consumption of Fixed Capital

$NNP_{FC} = 3910 – 500 + (−30) – 120$

$= 3910 – 500 – 30 – 120 = 3260$ crores

$GDP_{MP} = ₹3910$ crores

National Income (NNP_{FC}) = ₹3260 crores

13. (i) The market form referred to in the passage is Oligopoly. Two industries that operate under an oligopoly market structure are:
   1. Automobile industry (e.g., Maruti Suzuki, Hyundai, Tata Motors)
   2. Telecommunication industry (e.g., Jio, Airtel, Vodafone-Idea)

(ii) **Two Important Features of Oligopoly:**
   1. Few Large Firms: A small number of firms dominate the market and each firm's actions influence others.
   2. Interdependence: Firms closely monitor competitors' pricing and marketing strategies and often respond accordingly.

(iii) **Nature of the Demand Curve in Oligopoly:** The demand curve in an oligopoly is kinked due to price rigidity. If a firm increases its price, competitors may not follow, leading to a loss of market share. However, if it lowers its price, competitors may also reduce theirs, resulting in a price war. This creates a kink at the current market price, with a steeper demand curve above it and a flatter one below.

(iv)

Basis	Perfect Competition	Imperfect competition
(a) Nature of Product	Homogeneous (identical) products with no differentiation.	Differentiated or heterogeneous products (branding, quality variations, etc.).
(b) Nature of Demand Curve	Perfectly elastic (horizontal) demand curve; firms are price takers.	Downward sloping demand curve; firms have some control over price.