**SECTION A : MICRO ECONOMICS**

<table>
<thead>
<tr>
<th>Q.No.</th>
<th>Value points to answers</th>
<th>Marks Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>A consumer is said to be ‘rational’ when he aims at maximizing his utility from the consumption of the given commodity, within his money income</td>
<td>(1)</td>
</tr>
<tr>
<td>2.</td>
<td>Economics as a ‘normative science’ deals with situations of value judgments or condition of ‘what ought to be’. Eg. India should create more employment opportunities.</td>
<td>(1/2)</td>
</tr>
<tr>
<td>3.</td>
<td>Quantity demanded is that quantity of a commodity which a consumer is willing and able to buy at a particular price and a given point of time</td>
<td>(1)</td>
</tr>
<tr>
<td>4.</td>
<td>(d) 250</td>
<td>(1)</td>
</tr>
<tr>
<td>5.</td>
<td>Increasing marginal opportunity cost or any other valid assumption</td>
<td>(1)</td>
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</tbody>
</table>
| 6.    | i. MPP initially rises to its maximum  
ii. MPP then decreases (stays positive) to become zero  
iii. MPP becomes negative | (1) |
| 7.    | Price (in ₹) | Demand (in units) | Supply (in units) |
|       | 1 | 16 | 4 |
|       | 2 | 14 | 6 |
|       | 3 | 12 | 8 |
| 4     | 10 | 10 |
| 5     | 8  | 12 |
| 6     | 6  | 14 |
| **Schedule** | | | |
| **Explanation** – in the above schedule the market equilibrium is established at price of ₹ 4 where the quantity demanded and quantity supplied are equal, with equilibrium quantity of 10 units. | (2) |
| **(Any other valid schedule with explanation is also correct)** | |
| 8.    | The market in the question is ‘Oligopoly’. Explanation of any one Feature, say Price Rigidity. | (1) |
Price rigidity is the tendency of oligopolistic firms to stick to the ongoing price of the product, with a view to avoid any sort of price war.

**OR**

Indeterminateness of Demand Curve: In an Oligopoly form of market no single firm can predict its prospective sales with perfection. This is because any given change in the price/output decision by a rival firm would initiate a series of actions, reactions and counter actions by others. Therefore there is no certain nature and position of demand curve under this form of market for a firm.

9. (a) Ascending order: -0.3, -0.7, -0.8, -1.1.
(b) (minus sign only represents the inverse relation between price and quantity demanded)

<table>
<thead>
<tr>
<th>Price (in ₹)</th>
<th>Quantity (in units)</th>
<th>Total outlay (in ₹)</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>50</td>
<td>900</td>
</tr>
<tr>
<td>13</td>
<td>100</td>
<td>1300</td>
</tr>
</tbody>
</table>

CONCLUSION: The given data shows an inverse relation between Px and Total outlay, thus as per the total expenditure method, Ed > 1.

10. Out of the given options, (B) is incorrect. Indifference Curves have a property that two ICs cannot intersect.

Suppose, there are any two ICs intersecting each other. As per the figure

\[ A = C \ (\text{on IC1}) \]
\[ D = E \ (\text{on IC2}) \]

But if we see the peculiarity of point B (the point of intersection), this would result into absurd situation of A=C=B & D=C=B, which is not possible, as they are violating the basic definition of the Indifference Curves.
OR

(a) \( P_xQ_x + P_yQ_y = M \)
\( 25Q_x + 10Q_y = 250 \)

(b) Slope of Budget Line = \((-\) \( P_x/P_y \) = \(-\) 25/10 = \(-\) 2.5

(c) If \( Q_y \) is to be Zero
\( 25Q_x + 10Q_y = 250 \)
\( 25Q_x + 10(0) = 250 \)
\( Q_x = 250/25 = 10 \) units

(d) If \( P_y \) falls the consumer will be able to buy more of good \( Y \) in the same money income pushing the \( Y \)-intercept of the Budget Line away from origin, keeping the \( X \)-intercept constant. (shifts outwards)

11. The **marginal opportunity cost** can be defined as the ratio of number of units of a good sacrificed to produce an additional unit of another good. It is also known as **Marginal Rate of Transformation (MRT)**.

Marginal opportunity cost of a good in terms of the other good can be estimated as:

\[
MOC = \frac{\Delta \text{ loss of output of good } Y}{\Delta \text{ gain of output of good } X} = \frac{\Delta Y}{\Delta X} = \frac{Y_2 - Y_1}{X_2 - X_1}
\]

Marginal opportunity signifies the rate of sacrifice of good \( Y \)

<table>
<thead>
<tr>
<th>Combinations</th>
<th>Good X</th>
<th>Good Y</th>
<th>MOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>20</td>
<td>-</td>
</tr>
<tr>
<td>B</td>
<td>2</td>
<td>18</td>
<td>2</td>
</tr>
<tr>
<td>C</td>
<td>3</td>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td>D</td>
<td>4</td>
<td>11</td>
<td>4</td>
</tr>
</tbody>
</table>

*Example:* In the given schedule, if we want to move from combination A to combination B, we will produce one additional unit of X, but we will have to forgo 2 units of Y. The marginal opportunity cost of X in terms of Y at this stage is 2 units, similarly for other combinations too can be worked out.

12. **PRICE FLOOR**
A price floor is the lowest legal price of a commodity at which it can be sold, fixed by the government. Price floors are used by the government to prevent prices from being too low.

The main reason for imposing the price floor policy is the welfare of the producers / farmers.

Eg the minimum wages, minimum support price

Consequence:
Buffer Stock: In order to maintain the minimum support price, the government may have to build buffer stocks to enable producers to dispose of their surplus stocks. The government purchases the surplus stocks available with the farmers/producers; these stocks are released in case the production of the supported commodity suffers.

OR

PRICE CEILING
Price ceiling means the maximum limit that the government imposes on the price of a commodity. Price ceilings are used by the government to prevent prices from being too high.

The main reason for imposing price ceilings is to protect the interests of the consumers in situations in which they are not able to afford needed commodities. For example, during the recent rise in the prices of pulses.

Consequence:

Shortages of the commodity and Rationing: In case of price ceiling the quantity actually supplied in the market will shrink; as a result, a large chunk of consumer’s demand will go unsatisfied. To deal with such a situation the government may resort to rationing of the commodity.

13. (a) \( E_s \) at point \( L = \frac{\text{Supply Curve intercept on X axis}}{\text{Supply at point L}} \)

Draw a perpendicular from point \( L \) on the axis, say at \( OQ \),

The intercept of the supply curve coincide with the origin.

Therefore, \( E_s \) at point \( L = OQ/OQ = 1 \)

(b) The given statement is correct.
Normal profit is defined as the minimum reward that is just sufficient to keep the entrepreneur supplying his factor service. Since total cost includes payment made to primary inputs: land, labour, capital and enterprise, total cost includes rent, wages, interest and (normal) profits.

Q.14 (a) If \( MU_x/P_x > MU_y/P_y \), then it means that satisfaction of Mr. Aman, derived from spending a rupee on Good X is greater than the satisfaction derived from spending a rupee on Good Y.
Mr. Aman, will reallocate his income by substituting Good X for Good Y.
As the consumption of Good X increases the marginal utility derived from it goes on diminishing and reverse proposition occurs for Good Y, this process will continue till \( MU_x/P_x \) becomes equal to \( MU_y/P_y \).

(b) If \( P_y \) falls, \( MU_x/P_x < MU_y/P_y \), then it means that satisfaction derived from
spending a rupee on Good X is lesser than the satisfaction derived from spending a rupee on Good Y. Mr. Aman will reallocate his income by substituting Good Y for Good X. As the consumption of Good Y increases the marginal utility derived from it goes on diminishing and reverse proposition occurs for Good X, this process will continue till MUx/Px becomes equal to MUy/Py.  

Q.15 a) False: Since the firm under Perfect Competition is a price taker, AR curve will be a straight line parallel to X-axis.  
b) True: Since TFC remains unchanged/constant.  
c) False: When MR is falling but positive, TR will be rising.  
(brief explanation of each)

SECTION B : MACRO ECONOMICS

Q.16 (c) as on any point of time

Q.17 Nominal Flow/Money Flow is the flow of factor payments and payments for goods and services between households & firms.

Q.18 (i) Fiscal deficit less interest payments

Q.19 (iii) Margin Requirements

Q.20 Subsidies are the ‘economic assistance’ given by the government to the firms and households, with a motive of general welfare.

Q.21 When price of foreign currency in terms of domestic currency rises in the foreign exchange market it is termed as depreciation of domestic currency. Any depreciation of home currency results in increase in exports of the country since it increases the global competitiveness of the goods ie foreign countries can purchase more quantity of goods and services with the same amount of foreign currency from the domestic country. As a result exports of the domestic country rise.

Q.22 C= 100+0.75Y  
I = 150

(i) At equilibrium level of income:  
Y = C + I  
Y=100+0.75Y + 150  
Y - 0.75Y = 250  
Y = 250/0.25 = 1,000 (in ₹ crores)

(ii) C=100+0.75Y = 100+0.75(1000) = 100 + 750 = 850 (in ₹ crores)  
Y = C + S or S= Y-C = 1,000-850 = 150 (in ₹ crores)
C+I approach
Aggregate demand, given by C+I, is the planned demand by the various sectors of the economy. Whether this planned demand is realized or not depends on amount of goods and services (aggregate output or Y) produced in the economy. Thus it is only when planned expenditure is equal to the aggregate output does the economy achieve equilibrium.
\[ \text{ie AD} = \text{Y} \]

If \( \text{AD} > \text{Y} \), inventory level with producers falls and they increase output. This happens till \( \text{AD} = \text{Y} \)
Opposite happens if \( \text{AD} < \text{Y} \)

Q. 23

(a) When net current transfer from abroad are zero
(b) When Net Factor Income from Abroad is negative
(c) When intermediate consumption is zero.

Q. 24

GDP doesn’t account for externalities
Positive Externalities: eg: saving commuting time due to construction of a fly-over, increases welfare, GDP as an index understates welfare
Negative Externalities: eg: Pollution from factories, decreases welfare, GDP overstates welfare

Q. 25
Balance of payments is defined as the statement of accounts of a country’s inflows and outflows of foreign exchange in a fiscal year.
Components of Current Account:

i) Visibles: refer to the merchandise/goods exported from or imported by a country. Exports which results inflows for the country are placed on the credit side whereas Imports are placed on the debit side as they result into outflow of foreign exchange from the country.

ii) Invisibles: refer to the different types of services and transfers that take place between nations. They give rise to monetary receipts and payments for the nation.

Q. 26
1. Real GDP: when GDP is measured at constant prices or the base year’s prices is known as Real GDP. GDP at constant prices will only increase when there is an increase in the flow of goods and services in the economy.
2. Nominal GDP: when GDP is measured at the prevailing or the current year’s prices is known as Nominal GDP. GDP at current prices may increase even if there is no increase in flow of goods and services in the economy.

Any suitable numerical example.

OR
Precautions of Product Method:
1. Avoid double counting
2. Production for self consumption should be included
3. Sale of second hand goods is not to be included
4. Production from illegal activities is not to be included
5. Value of services rendered by housewives/family members is not to be included
   (any four)

Q. 27
(a) The term fiscal deficit is the difference between the government's total expenditure and its total receipts (excluding borrowing). Such borrowings are generally financed by issuing new currency which may lead to inflation. However, if the borrowings are for infrastructural development this may lead to capacity building and may not be inflationary.

(b) The term ‘Economic Growth’ refers to a sustained increase in the real GDP of the economy OR an absolute/net increase in the total volume of goods and services produced by an economy. This is an essential objective of the government budget as the budget can be a very effective instrument for targeting the economic growth. Can be achieved by providing tax rebates, infrastructural stimulation etc.

Q. 28
Range of Investment Multiplier = one to infinity.

Relation: if MPC rises, investment multiplier : positive relation, whereas if MPS rises, investment multiplier falls: inverse relation.
(Relation to be supported by numerical examples or explanation)

Q. 29
This is the most crucial function played by any central bank in the modern times. Central Banks are supposed to regulate and control the volume and direction of the credit by using the:

   i) Quantitative techniques – are those techniques which influence the quantum of credit in the economy like open market operations, bank rate policy, repo and reverse repo rate policy etc.

   ii) Qualitative techniques - or selective credit control techniques are the ones which influence the direction of credit in the economy like margin requirements and moral suasion.
   (brief explanation of each)

OR

Creation of credit is one of the crucial functions performed by a commercial bank in modern times. The commercial bank is responsible for putting money (produced/created by central bank) in circulation through the process of credit creation or the lending process.

Numerical Illustration, may be based on the following assumptions:
   i. There is only one bank in the economy.
   ii. Initial deposits are say ₹10,000 crores and the legal reserve
requirement proposed by the central bank is 10%.

iii. Credit Creation = Initial deposits x \frac{1}{0.1} = 10,000 / 0.1

\[ \text{LRR} = ₹1,00,000 \text{ crores.} \]

Students may provide a schedule for deriving the same

<table>
<thead>
<tr>
<th>Q.30</th>
<th>(i) National Income= (ix) + [(iii) + (xiii) +( vii)] + (i) +(ii)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>=1600 + (500 + 500 + 300)+ 2500+ (-50)</td>
</tr>
<tr>
<td></td>
<td>=₹ 5350 crores</td>
</tr>
</tbody>
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<thead>
<tr>
<th>Q.30</th>
<th>(ii) Personal Disposal Income= (iv) - (vi) – (viii) – (xiv)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>= 4000 - 700 – 500 – 300</td>
</tr>
<tr>
<td></td>
<td>=₹ 2500 crores</td>
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