**Q1.** Define marginal revenue?
*Ans.*
It is the net addition to total revenue when one more unit of a good is sold.

**Q2.** What does a right-shift of demand curve indicate?
*Ans.*
It indicates increase in demand.

**Q3.** Under which market form is a firm price-maker?
*Ans.*
Under price monopoly a firm is a price maker.

**Q4.** What is the behaviour of total variable cost when output increases?
*Ans.*
Total variable cost increases initially at diminishing rate, later it increases at increasing rate.
0.5. What do you mean by implicit cost in economics?
Implicit cost refers to imputed value of resources owned by producer and used during production.

0.6. Explain the problem of 'What to Produce' with the help of an example.
What to produce is one of the central problems of an economy related with what types of goods are to be produced and in what quantities. The economy has to choose since resources are limited in supply. The choice can be made between necessities or luxuries, peace-time goods or war-time goods. The increase in production of one good takes place at the cost of other.

0.7. Why can a firm not earn abnormal profits under perfect competition in the long run?
Under perfect competition firms earn normal
profits in long run due to free entry and exit of in short run some firms earn abnormal profits. Some new firms will be attracted towards industry. As a result market supply will increase. Price of the product will fall. Therefore all the firms will start earning normal profits.

or.

Q. 7. Why is the demand curve of a firm under monopolistic competition more elastic than under monopoly? Explain.

Ans. In monopolistic competition firms sell differentiated product. These products are close substitutes to each other. So the demand curve is more elastic.

In monopoly firm is a single producer. The product of a firm is unique with no close substitutes. As a result the demand for the product is less elastic hence the demand curve in monopoly is less elastic.
A consumer consumes only two goods $x$ and $y$ and is in equilibrium. Price of good $y$ falls. Explain the reaction of consumer through utility analysis.

A consumer is in equilibrium when ratio of marginal utilities of both the goods to their respective prices becomes equal to marginal utility of money

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

or when the utility derived from last rupee spent on both the goods becomes equal.

$$\frac{MU}{Price} \text{ (Utility per rupee)}$$

If the price of good $y$ falls then

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

Utility per rupee of good $y$ will be more than utility per rupee of goods, so consumer will increase the consumption.
0. 9.

The price elasticity of supply of a commodity is (1.5). A firm supplies 300 units of it at a price of £6 per unit. At what price will it supply 450 units.

Ans.

\[ E_s = \frac{\Delta Q}{\Delta P} \times \frac{P}{Q} \]

\[ P = £6 \]

\[ Q = 300 \]

\[ \Delta Q = 150 \]

\[ \Delta P = ? \]

\[ E_s = \frac{150}{\Delta P} \times \frac{6}{300} \]

\[ 1.5 = \frac{150}{\Delta P} \times \frac{6}{300} \]

\[ \Delta P = \frac{2}{1.5} = 2 \]

\[ New \ price = £6 + 2 = £8 \]
The price will increase to Rs 100 \text{ e.a.}

New price: \text{6+2=8}

When price increases, quantity supplied also increases.

Q. 10 How is the demand for a good affected by a fall in income of the buyer? Explain.

1b Goods are of two types Normal Goods and Superior Goods

Normal Goods are those goods for which demand falls with the fall in income.

Inferior Goods are those goods for which demand increases with the increase fall in income of buyer.
In case of normal goods, the demand curve shifts to the left with a fall in income of buyers and in case of inferior goods, the demand curve will shift to the right with a fall in income of buyers.

0 11. Explain the relationship between AVC and MC.
Use diagram

(1) When AVC falls, MC will lie below to AVC.
(2) When AVC rises, MC will lie above AVC.
(3) MC intersects AVC at its minimum point.
0.12 How does the nature of commodity affect elasticity of demand?

As in Case of Necessities the elasticity of demand is more less elastic. Their use can not be postponed.

In Case of Luxuries the elasticity of demand is more elastic. Their use can be postponed.

0.13 Draw a Straight line demand curve touching both the axis. Determine elasticity of demand at different points on the demand curve.

At point \( A \):
\[
\frac{\text{lower segment}}{\text{upper segment}} = \frac{0}{\text{Dd}} = 0
\]

Similarly at \( C = \frac{C_d}{C_D} \), \( c < 1 \)

At \( B \):
\[
\frac{B_d}{B_D} = c = 1
\]

At \( A \):
\[
\frac{A_d}{A_D} = c = 1
\]

At \( D = \frac{D_d}{D} \) : \( c = \infty \)
0.13. Draw straight line supply curves showing $e_s = 0$, $e_s = 1$, $e_s > 1$ and $e_s < 1$.

0.14. Why does a consumer attain equilibrium when marginal rate of substitution between two goods become equal to price ratios of those two goods. Explain with the help of a schedule.
A consumer is said to be in equilibrium when he is maximising his satisfaction. According to indifference curve approach a consumer is in equilibrium when marginal rate of substitution between two goods becomes equal to price ratios of these two goods or market rate of exchange.

\[ MRS_{xy} = \frac{P_x}{P_y} \]

\[ MRS_{xy} \] is the amount of one good consumer is willing to give up for one more unit of other good.

\[ P_x \] is the amount of one good consumer has to give up for one more unit of other goods.

Let price of goods is Rs. 30 and price of candy is Rs. 6.

\[ MRE \ or \ \frac{P_x}{P_y} = \frac{30}{6} = 5 \]

It means for every additional unit of goods the consumer has to give up 6 unit of candy.
As the consumer increases his consumption from 1 to 2 units, he is willing to give up 8 units for 2 nd unit of good, but he has to give up 6 units. So he is in gain. He will increase his consumption of good.

As he increases his consumption from 2 nd to 3 rd unit, he is willing to give up 6 units of candy for 3 rd unit of good. And he has to give up 6 units. So he is in equilibrium.

As he increases his consumption from 3 rd to 4 th unit, he is willing to give up 3 units of candy for 4 th unit of good. But he has to give up 6 units. He will be in loss. So he will not consume at that level.
Q15. Explain Producer equilibrium with the help of MC and MR curve in Perfect Competition.

A producer is said to be in equilibrium when he is maximising his profit.

The level of output where he maximises his profit is determined when:
(i) MC becomes equal to MR and
(ii) MC rises after intersecting MR.

The producer is in equilibrium at ON level of output. Here MC = MR and MC rises after intersecting MR. The producer is earning profit equal to area STE.
If the producer decides to produce on level of output he would lose some profit. His profit would be equal to area SBT. So he is not in equilibrium at ON since ar SBT < ar STE.

If he decides to produce more than ON at OK he would add more to cost and less to revenue. He must not be maximising his profit at OK level.

At OK level of output MC = MR but afterward MC falls. This gives an incentive to producers to produce more so that he can increase his profit.

Therefore, the producer is in equilibrium when MC = MR and MC is rising.

Hence, producer is in equilibrium at ON level of output.
Market for a good is in equilibrium. Explain what would happen if:
(i) Market price becomes less than equilibrium price
(ii) Market price becomes more than equilibrium price

When market price becomes less than equilibrium price there will be situation of excess demand. It will lead to competition among buyers. The price starts rising up gradually. It will stop rising when the situation of zero excess demand sets in. This determines equilibrium price.

When market price becomes more than equilibrium price, there will be situation of excess supply. At this price quantity supplied will be more than quantity demanded.
It will lead to competition among sellers. The price will start falling, with the fall in price quantity demanded will rise and quantity supplied would fall. The price will stop falling when the situation of zero excess supply sets in. This determines equilibrium price.

OR

0.16 How equilibrium price is determined in the market. Explain with the help of a schedule. Any equilibrium price is determined when quantity demanded of a good becomes equal to the quantity supplied of that good.

The market for a good is in equilibrium when there is a situation of zero excess demand and zero excess supply.

When price of the good is Rs 1 the quantity demanded is 50 units and quantity supplied is to units.
There is excess demand of 40 units. The competition among buyers takes place. Price will increase. Due to this, quantity demanded will fall and quantity supplied will increase. When price becomes Rs 2, there is still excess demand. Price will further increase. At price Rs 3, both quantity demanded and quantity supplied become equal. This is equilibrium price and equilibrium quantity. When price Rs 3 prevails, there is excess supply of 40 units. Competition among sellers will take place. The price will fall. At price Rs 4, quantity supplied will fall to 40 units and quantity demanded rises to 20 units. Still, there is excess supply of 20 units. Price will further fall due to competition among sellers. When price becomes Rs 3, quantity demanded becomes equal to quantity supplied.

Equilibrium price of a good is determined when quantity supplied of a good becomes equal to quantity supplied.
Section (a) Macroeconomics

Q. 17.  
Define excess demand in macroeconomics?  
It is that level of aggregate demand which is more than full employment level of output.

Q. 18.  
What do you mean by Tax?  
It is a necessary payment given to government without expecting anything in return.

Q. 19.  
What is the maximum value of multiplier?  
The maximum value of multiplier is infinite.

\[ k = \frac{1}{1-MPC}, \quad k = \frac{1}{1-1}, \quad k = \frac{1}{0}, \quad 2 \]

Q. 20.  
What is meant by cash reserve ratio?  
It is that part of deposits held by commercial banks which they have to maintain with central bank.
Q 21. What does zero primary deficit indicate?
Zero primary deficit indicates that fiscal deficit in government budget equal to direct payment.

Q 22. Calculate net value added at factor cost & MRP.

\[ \text{GVA}_{MP} = \text{Value of output} - \text{Intermediate cost} = \left[ 500 + (30 - 60) \right] - 250 = 470 - 250 = 220 \text{ lacs} \]

\[ \text{NVA}_{MP} = \text{GVA}_{MP} - \text{Depreciation} = 220 - 30 = 190 \text{ lacs} \]

Q 23. Differentiate between balance of trade and balance of payment?
Ans 23. Balance of Trade | Balance of Payment
---|---
(i) It is the difference between Value of Exports and Value of Import of Goods | It is the systematic record of all the transactions between reporting country and the rest of world.
(ii) It records only visible items. | It records visible, invisible borrowings, investments etc.
(iii) It is a narrow concept. | It is a wider concept.

Q. 24. From the following data about a government budget, find out (a) Revenue deficit (b) Fiscal deficit (c) Primary deficit

| (i) Tax Revenue | 97 |
| (ii) Capital Receipt | 81 |
| (iii) Non Tax Revenue | 60 |
| (iv) Borrowings | 82 |
| (v) Revenue expenditure | 130 |
| (vi) Interest Payments | 70 |
Q. 25

(a) Define money supply. Briefly explain its any two components. (b) Currency held by public. It includes currency notes and coins.

Money supply refers to total volume of money in circulation at a point of time. Primary deficit = Borrowing

Fiscal deficit = Revenue deficit - Interest Payments

Revenue deficit = ₹ 230 - (91 + 60)

Fiscal deficit = ₹ 82 - 70

PD = ₹ 12cr
2. Demand Deposits - These are the deposits held by banks which are payable on demand. These deposits are also serve as medium of exchange.

### Question 0.26

**Differentiate between Capital Receipt Expenditure and Revenue Expenditure?**

<table>
<thead>
<tr>
<th>Capital Expenditure</th>
<th>Revenue Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>It either creates assets or reduces liabilities.</td>
<td>It neither creates assets nor reduces liabilities.</td>
</tr>
<tr>
<td>Capital expenditure is non-recurring in nature.</td>
<td>Revenue expenditure is incurred regularly.</td>
</tr>
<tr>
<td>Acquisition of Assets, Construction of dams etc.</td>
<td>Pension, Subsidies, Interest etc.</td>
</tr>
</tbody>
</table>
Q 26. Distinguish between direct tax and indirect tax. What is the basis of classifying taxes into direct tax and indirect tax.

<table>
<thead>
<tr>
<th>Direct tax</th>
<th>Indirect tax</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) The burden of direct tax can not be shifted</td>
<td>The burden can be shifted</td>
</tr>
<tr>
<td>(ii) Imposition and incidence lie on same person</td>
<td>Imposition and incidence lie on different person</td>
</tr>
<tr>
<td>(iii) Imposed on income and wealth</td>
<td>Imposed on goods and services</td>
</tr>
</tbody>
</table>

The taxes are classified into direct tax and indirect tax on the basis whether the burden can be shifted or not. If it can be shifted it is an indirect tax. If it cannot be shifted it is a direct tax.

Q 27. Explain 'Bankers to Government' function of
Central Bank?

As 27.

Central Bank act as 'Banker to Government'. It keeps the banking accounts of government. It makes payment on behalf of government. It also receive payment for government. It advances loans to government. It also manages public debt of government. It also manages public debt. It also advises government on various policy measures.

or

Q. 27

How does change in 'Bank rate' and 'Marginal requirement of loan' affect money supply in economy.

Ans.

Bank rate - It is the rate at which central bank advances loans to commercial banks. And the commercial bank determines on the basis of this rate that how much is to charge from their customers.

Bank rate affects demand for loan by customer of bank rate is more less is demand for money credit hence money supply will fall.
If bank rate is less, demand for credit will be more. Hence money supply will increase.

Margin requirement of loan or MRL is the difference between value of security and the loan sanction by bank against this security.

If MRL is 40%, it means 60% of value of security (asset) can be given on loan.

If MRL is more, less will be the supply of credit. If MRL is less, more will be the supply of credit.

Q. 28 Explain the concept of Investment multiplier?

Ans.

Investment multiplier is a number which is multiplied with change in investment to determine change in income.

\[ k \times \Delta I = \Delta Y \]

\[ k = \frac{\Delta Y}{\Delta I} \]

It is the ratio of change in income to change in investment.
The value of multiplier depends upon MPC. Generally, the value of MPC larger the value of multiplier.

\[ K = \frac{1}{1 - MPC} \quad \text{or} \quad K = \frac{1}{MPS} \]

Principle of multiplier - Multiplier works on a principle that expenditure of one person is income of other persons.

Suppose MPC is 0.8 then the value of K will be 5. The increase in income will be 5 times of increase in investment.

Q. 29. Why is supply curve of foreign exchange positively sloped?

Ans. Supply curve of foreign exchange is positively sloped it means when foreign exchange rate
Increases the supply of foreign exchange also increases and when foreign exchange rate falls supply of foreign exchange also falls.

When foreign exchange rate rises the value of domestic currency falls, domestic goods become cheaper for foreigners so exports rises and supply of foreign exchange increases.

When foreign exchange rate falls the value of domestic currency rises, domestic goods becomes costlier for foreigners so exports will fall and supply of foreign exchange falls.

Q. 36
State whether the following statements are true or false. Give reasons.

1. Equilibrium level of income is solely determined by AD in short run.
   True. The economy is in equilibrium when AD = AS. This is short run fixed price model.

2. When MPC is zero, the value of multiplier will also be zero.
   False. When MPC is zero, value of multiplier is 1.
3. If the saving function of an economy is given as \( s = -40 + 0.2y \), then the value of MPC is 0.8.

True: \( MPC + MPS = 1 \)

If \( MPS = 0.2 \)

then \( MPC = 0.8 \)

4. Equilibrium level of income, output and employment is determined only at full employment.

False - Economy is in equilibrium when \( AD = AS \).

\( AD \) may be equal to \( AS \) at less than full employment. There is a situation of deficient demand or underemployment equilibrium.

Q. 31

Explain Expenditure method to determine National Income. Also state two precautions.

Ans:

In an economy, final expenditure on goods and services is equal to income generation.

First of all, Gross Domestic Product is determined by adding final consumption expenditure of household, non-profit organisation serving household, government and
Investment expenditure of firms and Net exports.

(i) Private final consumption expenditure. It is the final consumption expenditure of households and non-profit organisations serving households.

(ii) Government final consumption expenditure. It is the final expenditure of government on purchases of goods and services. The free services provided by government to public is its final consumption expenditure.

(iii) Gross investment. It is net addition to stock of Capital goods and depreciation taken together. It is the sum of Gross business fixed investment, Gross residential construction, Gross public investment and change in stock.

(iv) Net exports is the difference between Exports and Imports. Exports are included as these are the goods produced inside domestic territory. After addition of above all, GDP is determined.

If Factor income is added and from abroad is added and Factor income to abroad is excluded. Gross national income is determined.
Q. 1: If from GDP, depreciation and net indirect taxes are deducted, National Income is determined.

Precaution - (i) Do not take the value of second-hand goods
(ii) Do not include the expenditure of on buying of shares.

OR

Q. 3: Explain the following
(i) Circular flow of Income
(ii) Leakages and injections

Ans: Circular flow of Income shows the interdependence of different sectors on each other. In two sector economy it shows interdependence of households.
and firms on each other, it implies flow of income and flow of goods across different sectors. Households are the owners of factors of production. They supply factors of production to firms and receive factor payments in the form of Rent, Dividend, profit and wages. Firms hire factors of production and produce goods and services and sell to households.

11. Leakages and injections
Any withdrawal from flow of income is considered as leakages. When households and firms save a part of their income, this reduces flow of income hence it is a leakage.
Any additional expenditure in the economy is considered as injection. When consumption expenditure of households increases and firms start investing, it increases flow of income. Hence it is injection.

Q. 32: Calculate private income, personal disposable income from following.

\[
\text{NDP} = \text{GNP}_{mp} - \text{Depreciation} - \text{NPIFA} - \text{NI}
\]
\[
= 4000 - 30 - (-50) - 20
\]
\[
= 4000 - 50 = 4000 \text{ cr}
\]

Part of NDP according to private sector = NDP - Part of NDP to government

\[
= 4000 - \left[ 200 + 300 \right]
\]
\[
= 4000 - 500
\]
\[
= 3500 \text{ cr}
\]

Private income = Part of NDP to private sector + NPIFA + current transfers from central + net current transfers from rest + public debt interest.
Private Income = 3500 + (-50) + 1250 + 150
= 3500 - 50 + 1400
= 4900 - 50
= £4850 cr

Personal Income = Private Income - Corporation tax - Undistributed profit
= 4850 - 225 - 175
= 4850 - 400
= £4450 cr

Personal Disposable Income = Personal Income - Direct Tax - Miscellaneous
Paid by household
= 4450 - 250
= £4200 cr