01.
Define microeconomics.
Microeconomics studies individual units of an economy such as a household, a firm etc.

02.
What does upward movement along the demand curve indicate?
It indicates decrease in quantity demanded of a good due to rise in its price.

03.
What is a price maker firm?
Monopoly is a price maker firm as it can fix the price of its product.

04.
What happens to Average Fixed Cost (AFC) when output falls?
AFC rises when output falls.
6.5. What do you mean by explicit cost?
Ans.
It is expenditure of producer on the resources or inputs hired or purchased from external sources.

6.6. Why is production possibility curve concave to origin?
Ans.
Production possibility curve is concave to origin due to increase in marginal rate of transformation. MRT is the amount of one good given up in order to produce one more unit of other good. MRT du increases as all the resources are not equally efficient in production of all the goods.

6.7. Explain the implications of large number of sellers in a perfectly competitive firm.
Ans.
In perfect competition there are large number of buyers and sellers. The size of an individual firm is very small in comparison to industry. Through it no decisions related to production it can not affect market supply, so it can not affect
given the price of a good how does a consumer decide how many units of that good to buy?

as when he is maximising his profits satisfactorily. he buys the level of output where marginal utility of a good in terms of money becomes equal to price. he compares Mux and Pu to reach a level of output which give him maximum satisfaction.
MU_u = P_u

In terms of money

Let price be Rs 3.

<table>
<thead>
<tr>
<th>Units</th>
<th>MU_u</th>
<th>P_u</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Equation: \( MU_u = P_u \)

The consumer is in equilibrium at 2nd unit when \( MU_u \) in terms of money is equal to price of the good.

A consumer buys 16 units of a good at a price of Rs 5 per unit. When price rises to Rs 8 per unit he buys 10 units. Calculate price elasticity through expenditure approach.

<table>
<thead>
<tr>
<th>P</th>
<th>Q</th>
<th>TE</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>16</td>
<td>80</td>
</tr>
<tr>
<td>8</td>
<td>10</td>
<td>80</td>
</tr>
</tbody>
</table>

The price elasticity of demand will be unitary elastic. Total expenditure remains unaffected due to change in price.
### Question 1.10

How is the demand for a good affected by the rise in the price of other goods? Explain.

**Answer:**

Related goods are those goods whose price of a good changes the demand of other good also changes. Related goods are of two types:

- **Substitute goods:** In case of substitute goods, if price of one good rises, the demand for other good also rises (increases). Example: Pepsi and Coke.

- **Complementary goods:** In case of complementary goods, if price of one good rises, the demand for other good decreases. Example: Car and Petrol.

### Question 1.11

Explain the distinction between change in quantity supplied and change in supply.
<table>
<thead>
<tr>
<th>Change in quantity supplied</th>
<th>Change in supply</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is the result of change in own price of a good.</td>
<td>It is the result of change in factors other than price.</td>
</tr>
<tr>
<td>There is upward and downward movement along supply curve</td>
<td>There is rightward or leftward shift in supply curve.</td>
</tr>
<tr>
<td>If price rises, there is extension of supply; if price falls, there is contraction of supply.</td>
<td>Rightward shift takes place when increase in supply. Leftward shift takes place when decrease in supply.</td>
</tr>
</tbody>
</table>

**Diagram:**
- The left diagram shows a supply curve with supply shifting to the right. The right diagram shows a supply curve with supply shifting to the left.
12. What do you mean by marginal rate of substitution between two goods? Why does it diminish along the indifference curve?

Marginal rate of substitution between two goods means the rate at which consumer substitutes one unit of good x for some units of good y. Alternatively, it is the amount of one good a consumer is willing to give up for one more unit of other good.

Marginal rate of substitution diminishes along the indifference curve. It means that MRS decreases as the consumer increases the consumption of one good he derives less and less satisfaction, so for less satisfaction he gives up less and less amount of other good.

| Good x | Good y | MRS
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>20</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

As the consumption of Good x increases, MRS is falling.
**Am 13. Complete the following table**

<table>
<thead>
<tr>
<th>Q</th>
<th>APC</th>
<th>AVC</th>
<th>ATC</th>
<th>MC</th>
<th>VC</th>
<th>TC</th>
<th>FC</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>40</td>
<td>30</td>
<td>70</td>
<td>30</td>
<td>30</td>
<td>70</td>
<td>40</td>
</tr>
<tr>
<td>1</td>
<td>20</td>
<td>25</td>
<td>45</td>
<td>20</td>
<td>50</td>
<td>90</td>
<td>40</td>
</tr>
<tr>
<td>2</td>
<td>13.3</td>
<td>26.6</td>
<td>40</td>
<td>30</td>
<td>80</td>
<td>120</td>
<td>40</td>
</tr>
</tbody>
</table>

\[ VC = AVC \times Q \]
\[ \frac{1}{2} MC = VC \]
\[ VC + FC = TC \]

**OR**

**Am 13. Explain the relationship between AP and MP with the help of a Schedule**

<table>
<thead>
<tr>
<th>Q</th>
<th>MP</th>
<th>TP</th>
<th>AP</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>20</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>1</td>
<td>20</td>
<td>25</td>
<td>20</td>
</tr>
<tr>
<td>2</td>
<td>30</td>
<td>50</td>
<td>25</td>
</tr>
<tr>
<td>3</td>
<td>20</td>
<td>70</td>
<td>23.3</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>70</td>
<td>17.5</td>
</tr>
<tr>
<td>5</td>
<td>-10</td>
<td>60</td>
<td>12</td>
</tr>
</tbody>
</table>

(1) When AP increases, MP is more than AP
(2) When AP decreases, MP is less than AP
(3) MP equals to AP

When AP is Maximum
Market for a good is in equilibrium. Suppose supply of this good decreases. How will it affect equilibrium price and equilibrium quantity?

When the supply of a good decreases, equilibrium price will rise and equilibrium quantity will also fall.

When supply of a good decreases there will be competition among buyers. The price will start rising gradually. When price rises quantity demanded will fall due to application of law of demand.

OP is initial equilibrium price and OQ is initial equilibrium quantity. When supply decreases supply curve shifts up. SS is new supply curve. Price at intersection DD demand curve at E1. Now equilibrium price OP and new equilibrium quantity OQ is determined.
0.15 If the proportion of variable factor is increased keeping other factors fixed, how will it affect total production. Explain with the help of TP and MP schedules.

Ans

In short run all the factors are fixed only one factor is variable. Output can be increased by increasing the variable factor only. Law of variable proportion will operate. According to this law when the ratio between fixed factor and variable factor is altered. Total product initially increases at increasing rate then increases at diminishing rate and finally starts falling down.

There are three stages of law of variable proportion:

1. Increasing returns to a factor

   - During this stage MP increases and TP increases at increasing rate. This stage ends when MP becomes maximum.

2. Diminishing returns to a factor

   - During this stage MP falls but remains positive and TP increases at diminishing rate. This stage ends when MP is zero and TP is maximum.
Negative returns to a factor

During this stage, MP becomes negative and TP starts decreasing or falling. No rational producer will produce during this stage.

<table>
<thead>
<tr>
<th>Units</th>
<th>MP</th>
<th>TP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td>6</td>
<td>-2</td>
<td>12</td>
</tr>
</tbody>
</table>

1st Stage or IRF

2nd Stage or DFP

3rd Stage or NRF

Up to 2nd unit MP increases and TP increases at increasing rate. This is Increasing returns to a factor.

From 3rd unit to 5th unit there is diminishing return to factor as MP falls and TP increases at diminishing rate during the production of 6th unit MP becomes negative and TP falls. This is negative returns to a factor.
Q 16. Determine Consumers equilibrium using indifference approach.

A Consumer is said to be in equilibrium when he is maximising his satisfaction.

According to indifference curve approach, a consumer attains equilibrium when budget line becomes tangent to indifference curve.

At the point of tangency, marginal rate of substitution between two goods becomes equal to price ratio of two goods.

\[ \text{MRS}_{xy} = \frac{P_x}{P_y} \]

\[ \therefore \text{Slope of Indifference Curve} = \text{Slope of Budget Line} \]

In the diagram, BC is budget line and IC is indifference curve.

Point A, B, and C lie on same IC.

So, bundles A, B, and C will yield same level of satisfaction.

On bundle A and C, the expenditure of consumer is equal to his income as
Bundles A and C lie on Budget line also. B lies below to budget line. So the consumer will prefer B over A and C.

But the consumer wants to spend his entire income so he will shift to higher Indifference Curve EC.

Bundle D is non attainable as it lies outside Budget line. Bundle E is the combination of optimum choice. It is preferable over all.

E is the point of equilibrium. At this point slope of Budget line is equal to slope of Indifference Curve so At E

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

in case of goods and goods.

Explain three properties of Indifference Curve?

Indifference curve is downward slopping, it means in order to increase the consumption of one good, another
Consumption of other good has to be reduced.

(2) Indifference curve is convex to origin means in order to increase the consumption of good the other good has to be sacrificed at diminishing rate. Marginal rate of substitution is diminishing along indifference curve.

(3) Higher indifference curve yields higher level of satisfaction.

At higher indifference curve a consumer can have more of both goods or more of one good without reducing other good. At higher indifference curve the consumer preferences are monotonic.

At point A, both are available but at B on IC₂ more of both are available. At C on IC₂ at least more of one good and none.
Section B: Macroeconomics

0.17. What is revenue deficit?
Revenue deficit is the difference between Revenue Expenditure and Revenue Receipts.
RD = RE - RK

0.18. Give two examples of intermediate goods?
- Raw material used as input
- Finished goods available with sellers or traders for selling.

0.19. What are time deposits?
Time deposits are those deposits held by commercial banks which can be withdrawn after maturity is over.

0.20. Why are subsidies treated as revenue expenditure?
Subsidies are treated as revenue expenditure as it does not create assets and does not reduce liabilities.
Q 21. What is current account deficit?

It is the excess of imports of goods and services and unilateral transfer payment to abroad over exports of goods and services and unilateral transfer received from rest of the world.

Q 22. Flexible exchange rate is determined when demand for foreign exchange becomes equal to supply of foreign exchange. The equality between quantity demanded of foreign exchange and quantity supplied of foreign exchange determines exchange rate.

If demand or supply changes, foreign exchange rate also changes.

In the demand curve, it intersects supply curve at E, FER is exchange rate.
0.23. What is fiscal deficit? Give its implications.

Fiscal deficit is the difference between total expenditure of government on one hand and total receipts excluding borrowings on other hand.

F.D. = TE - TR (excluding Borrowings)

It can be financed by two ways

(1) Borrowings - It may lead to creation of liabilities. Debt on borrowing will increase revenue deficit.

(2) Printing of new currency - or deficit financing may be inflationary.

0.24. Distinguish between foreign direct investment and portfolio investment. On which account of B.O.P. are they included.

Direct investment - It refers to acquiring of an asset in foreign countries along with control over it.
Portfolio investment refers to acquiring of asset in foreign countries without any control over it. Buying of shares of foreign companies.

Both Foreign direct investment and Portfolio investment are included in Capital account of BoP.

<table>
<thead>
<tr>
<th>A 25</th>
<th>Differentiate between Capital Account Receipt and Revenue Receipt in Government Budget?</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Capital Receipt</td>
</tr>
<tr>
<td></td>
<td>It results in creation of liabilities or reduction in assets</td>
</tr>
<tr>
<td>2)</td>
<td>Borrowings and disinvestment are the examples</td>
</tr>
</tbody>
</table>
Q 26. Explain briefly 'open market operations' as an instrument of monetary policy.

A. Open market operation means buying and selling of government securities by Reserve Bank of India in open market. Buying and selling of securities by Central Bank affect money supply in the economy. Buying of securities by Central Bank increases money supply in the economy. Selling of securities reduces money supply in the economy. Buying of securities leads to increase in money supply with public or commercial banks. During insufficient demand Central bank buys securities. Selling of securities leads to reduce cash reserve with public and commercial banks. During excessive demand or inflation Central bank sells securities.

Q 26. Why Central bank is also known as 'Lender to Last resort'.

A. Central bank is also known as 'Lender to Last resort'.
When commercial banks fail to meet their financial requirements or meet with an emergency situation, they may approach the central bank. The central bank may advance loans to commercial banks and come forward to help them. This function of the central bank is also known as lender of last resort.

Q. 24. Differentiate between Real GDP and Nominal GDP, which is a better measure of welfare and why?

<table>
<thead>
<tr>
<th>Ans</th>
<th>Real GDP</th>
<th>Nominal GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i)</td>
<td>It is the value of final goods and services produced in the economy at base period prices in a year.</td>
<td>It is the value of final goods and services produced in the economy at current prices in a year.</td>
</tr>
<tr>
<td>(ii)</td>
<td>It will increase only when there is an increase in output.</td>
<td>It may increase if either there is an increase in output prices or output increases.</td>
</tr>
</tbody>
</table>

Real GDP is a better measure of welfare because it will increase only when there is an increase in production.
Q. 28. Giving Reasons explain the treatment assigned to the following while estimating domestic income.

(a) Payment of interest on borrowing by the government is not included in domestic income as this is a transfer payment. It is assumed that General Government borrows for the purpose of consumption. Any interest arising due to consumption is not a factor income.

(b) Rent paid to an Indian who has rented out his building to Embassy of Japan. It is not included in domestic income as the income does not generate within the domestic territory of India.

Q. 29. Explain 'medium of exchange' function of money? And if we can measure the value of goods and
Services in the economy by money than money can also buy these goods and services. It has removed the drawback of barter system lack of double coincidence of wants. It has also removed search cost associated with barter system. It can be readily accepted as medium of exchange. It has given rise to establishment of Market system where all the sellable goods can be exchanged with money.

0.29 Explain 'store of value' function of money?
A.

If the value of all the goods and services can be expressed in terms of money, if money can buy these goods and services. If money can be accepted as a standard for deferred payments then money can also be used as a store of value.

Store of value means storing of purchasing power for future use. In barter system purchasing power was stored in either goods or live stock. Goods might depreciate and live stock might die. Money is a good standard for store of value as long as its value remain constant.
30. Explain the concept of inflationary gap with the help of a diagram. How it can be computed?

An inflationary gap is the difference between actual aggregate demand and effective demand which is required to maintain full employment level of output.

\[ AD - ADE = \text{Inflationary gap} \]

It refers to the amount on expenditure need to be curtailed in the economy to remove excess demand. Excess demand is that level of aggregate demand which is more than full employment level of output.

As is represented by \( y \) line since both the axes are equidistant from this line.

\( ADE \) represents effective demand required to maintain full employment level of output of.

\( AD \) is Actual aggregate demand curve.

\( OM \) is actual demand. \( FM \) is excess demand. The difference between

Income/output/employment
AD (actual demand) and AE (Effective demand) is inflationary

Graph can be combated by reducing money supply.

1. By increasing rate of tax or addition of new taxes.
2. By increasing borrowing in the economy.

Q. 30
Can there be underemployment at equilibrium level of income. How it can be corrected. Explain with the help of a diagram.

As Equilibrium level of income, output and employment is determined where Aggregate demand is equal to aggregate supply.

AD may be equal to AS at full employment or at less than full employment level.

So there is underemployment at equilibrium takes place when there is situation of deficient demand. Deficient demand is that level of aggregate demand which fall short of effective demand require to maintain full employment level of output.
Aggregate supply is represented by 45° line since both the axes are equidistant from this line.

AB is full employment level of demand which determine 'OF' full employment output.

Alls is actual demand which intersects 45° line (AS) at E0. E0 is underemployment equilibrium. ON is equilibrium output

NF is deficient demand

It can be corrected by increasing money supply in economy

1. By reducing taxes
2. By reducing borrowing
3. By increasing government expenditure.
Q 31. Explain Consumption function with the help of a diagram. Also explain the steps of determining Saving Curve from Consumption Curve?

No

Consumption is a function of Income

\[ C = f(y) \]

When Income of people increases then Consumption also increases but less proportionate than rise in Income. This is fundamental Psychological law of Consumption.

\[ C = c + by \]

Where \( c \) is autonomous Consumption, \( b \) is MPC and \( y \) is Income. \( C \) represents Consumption.

Autonomous Consumption \( a \) is the level of Consumption at zero level of Income.

Marginal propensity to consume \( a \) is the ratio of Change in Consumption to Change in Income. If \( MPC \) is 0.8 it mean 80\% of increase in income will be spent.

\[ MPC = \frac{\Delta C}{\Delta y} \]
Y is represented by 45° line.
Since both the axes are equidistant.
C is straight line, upward sloping curve starts from Y axis due to autonomous consumption.

Steps to determine saving curve:
Take OA on (-y) axis equal to oA
Draw a perpendicular from a point where Y=C to x axis. Name this point N.
Join A, to N and extend. This is saving curve.
(a) \[ \text{NDP} = \text{Compensation of Employees} + \text{Operating Surplus} + \text{Mixed Income} \]
\[ \text{PC} = 2400 + (800 + 500 + 1600) + 2000 \]
\[ = 6400 + 2400 \]
\[ \text{NDP} = \£ 7300 \text{ cr} \]

\[ \text{NNP} = \text{NDP} + \text{NPIFA} \]
\[ \text{PC} = 7300 + (-100) \]
\[ \text{NI} = \£ 7200 \text{ cr} \]

(ii) \[ \text{Personal Income} = \text{Private Income} - \text{Corporation Tax} - \text{Undistributed Profits} \]
\[ = 7200 - 100 - 400 \]
\[ = \£ 6700 \text{ cr} \]

\[ \text{Personal Disposable Income} = \text{Personal Income} - \text{Direct Tax} - \text{Misc. Receipts} \]
\[ \text{Paid by Household, not current} \]
\[ = 6700 - 300 \]
\[ = \£ 6400 \text{ cr} \]