Study Important Questions for Class 12

Macro Economics

Chapter 4 – Determination of Income and Employment

Very Short Answer Questions **1 Mark**

1. In a two sector economy Aggregate Demand equals

a) Consumption + Private consumption expenditure

b) Consumption + Exports

c) Consumption + Investments

d) Consumption + Government Expenditure

Ans: (c) Consumption + Investment

2. APS=

a) $\frac{\mathbf{S}}{\mathbf{Y}}$

b) None of the these

c) $\frac{\mathbf{S}}{\mathbf{D}}$

d) $\frac{\mathbf{C}}{\mathbf{S}}$

Ans: (a) $\frac{S}{Y}$

3. APC + APS should always be equal to 1

a) False

b) Depends on their values

c) None of these

d) True

Ans: (d) True

4. Consumption changes in the same direction as income. It is

a) True

b) False

c) Can't say

d) Insufficient information

Ans: (a) True

5. The law of Psychological consumption states

a) Consumption does not change in the same direction as income

b) Consumption changes in the same direction as investment

c) Consumption changes in the opposite direction as income

d) Consumption changes in the same direction as income but APC remains less than unity

Ans: (d) Consumption changes in the same direction as income but APC remains less than unity

6. What is the relation between APC and APS?

Ans: The relation between Average Propensity to Consume (APC) and Average Propensity to Save (APS) is always equal to 1 (unity), that is,

APC + APS = 1

This is because the money income can either be spent on consumption or saved.

7. State the important factor influencing the propensity to consume in an economy.

Ans: It is always the level of income (Y) that impacts an economy's propensity to consume (C).

8. Give the formula of investment multiplier in terms of MPC.

Ans: The formula of investment multiplier in terms of MPC is shown below.

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

9. Write down the equation of saving function.

Ans: The equation of saving function is given below.

$S = -a + (1 - b)\, y$

Here,

1-b = MPS

Y= Income

-a = Savings, when Y is 0

10. What is equilibrium income?

Ans: The amount of income at which aggregate demand equals aggregate supply is referred to as the equilibrium income. That is when AD=AS, there is equilibrium income.

11. MPS = 1 + MPC. It is

a) Depends on their values

b) True.

c) None of these

d) False

Ans: (d) False

12. C = a + bY is a

a) Algebraic function of the level of Investment expenditure

b) Linear function of the level of Consumption expenditure

c) Algebraic function of the level of Consumption expenditure

d) Algebraic function of the level of capital expenditure

Ans: (c) Algebraic function of the level of Consumption expenditure

13. The investment demand function is

a) The relationship between investment demand and the National income

b) The relationship between investment demand and the disposable income

c) The relationship between investment demand and the rate of interest

d) The relationship between investment demand and the consumption expenditure

Ans: (c) The relationship between investment demand and the rate of interest

14. The level of equilibrium income is determined by

a) AD and national income

b) AD and Investment

c) AD and Consumption

d) AD and AS

Ans: (d) AD and AS

15. Multiplier tells us what will be the

a) Change in investment results in the change in income

b) Final change in the income, as a result of change in consumption

c) Final change in the consumption, as a result of change in investment

d) Final change in the income, as a result of change in investment

Ans: (d) Final change in the income, as a result of change in investment

Short answer Questions **3 Marks**

16. Explain the components of S = -a + (1-b)Y

Ans: The equation of saving function is

$S = -a + (1-b)Y$

In this equation, -a indicates the intercept term and the amount of savings made while there is no income. Savings are negative at zero since income consumption 'a' is positive. Negative saving is also known as dissaving, which means that at the 0 level, there is dissaving of the amount represented by -a

The slope of the saving function is measured by the coefficient 1-b. The slope of the saving function indicates the amount of money saved for every unit increase in income. This is referred to as the Marginal Propensity to Save. Since b,' or Marginal Propensity to Consume, is smaller than one, 1-b i.e. MPS, is positive. And Y refers to income here.

17. Can the average propensity to consume be greater than one? Give the reason for your answer.

Ans: When consumption surpasses income, the average propensity to consume can be greater than one. Also, APS is negative at this level, so APC will be more than one.

For example, if income is Rs. 1000, consumption is Rs. 1200, then,

$$\text{APC} = \frac{1200}{1000} = 1.20$$

18. Differentiate between ex ante and ex post investment.

Ans: The difference between ex ante and ex post investment.

Basis	**Ex- ante Investment**	**Ex- post Investment**
Meaning	It refers to what is planned or intended to happen during a specific time period.	It refers to the actual level of investment over a specific time period.
Type of situation	It is a fictitious (intended) situation in which a company assumes the level of investment on its own.	It is true or unique that represents the existing investment of a specific time.
Based on	It is planned based on future expectations.	It is the actual outcome of variables.

19. Explain the working of a multiplier with an example.

Ans: The multiplier shows us what the eventual change in income will be as a result of a change in investment. Changes in investment lead to changes in income. It is represented symbolically by:

$\Delta I \rightarrow \Delta Y \rightarrow \Delta C \rightarrow \Delta Y$

The operation of a multiplier can be illustrated using the table below, which is based on consumption, that is, $\Delta K = 1000$ and $MPC = \frac{4}{5}$.

The process of income generation is shown below.

Rounds	ΔI	ΔY	ΔC
1	1000	1000	$\frac{4}{5} \times 1000 = 800$
2	-	800	$\frac{4}{5} \times 800 = 640$
3	-	640	$\frac{4}{5} \times 640 = 512$
4	-	512	$\frac{4}{5} \times 512 = 409.6$
$\downarrow \infty$	$\downarrow \infty$	$\downarrow \infty$	$\downarrow \infty$
	Total	5000	

According to the above table, as $\text{MPC} = \frac{4}{5}$, the initial increase in investment of Rs 1000 results in a total increase in income of Rs 5000. From the whole increase in income, Rs. 4000 will be spent and Rs. 5000 will be saved.

The derivation of the sum of total increase in income is shown below.

$$= 1000 + \frac{4}{5} \times 1000 \left(\frac{4}{5}\right)^2 \times 1000 \left(\frac{4}{5}\right)^3 \times 1000 + \ldots\ldots\ldots \infty$$

$$=1000\left[1+\frac{4}{5}+\left(\frac{4}{5}\right)^2+\left(\frac{4}{5}\right)^3+\ldots\ldots\infty\right]$$

$$=1000[\frac{1}{1}-\frac{4}{5}]$$

$$=1000\times\frac{5}{1}$$

= Rs. 5000 crores.

20. Can the value of APS be negative? If yes, then when?

Ans: Yes, when the value of spending/ consumption exceeds the value of income, the average propensity to save might be negative. Though APS can never be greater than one, as a person cannot save more than his income.

For example: Assume that the income is Rs. 1000 and its consumption expenditure is Rs. 1200.

Y= C-S

S= C-Y

S= 1000-1200

S= -200

$$\text{APS} = \frac{S}{Y}$$

$$\text{APS} = \frac{-200}{1000}$$

=0.2

Long Answer Questions **6 Marks**

21. Define and represent the inflationary gap on a diagram. Explain the role of the varying reserves requirement in removing the gap.

Ans: Meaning: Inflationary Gap

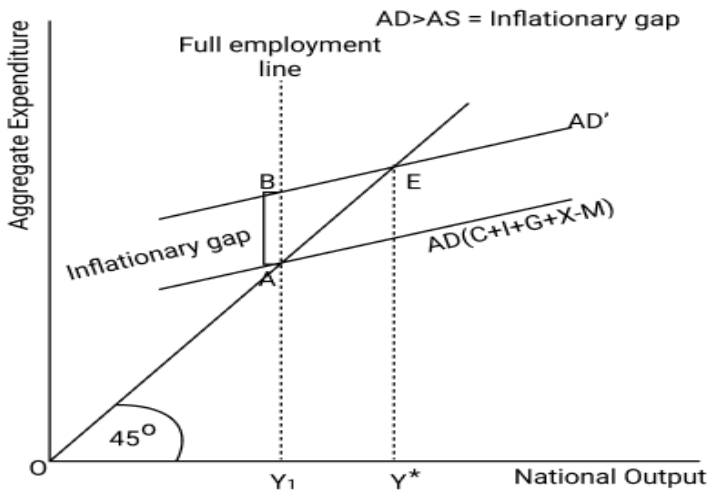
- An inflationary gap is a macroeconomic concept that defines the difference between the current level of real GDP and the expected GDP that would be experienced if an economy is at full employment, also known as the potential GDP.

- An inflationary gap is always associated with a business-cycle expansion and occurs when an economy's equilibrium level of aggregate output exceeds the output that could be produced at full employment.
- It also depicts the excess of aggregate demand over aggregate supply even when there is full utilization of the factors.

Formula

AD + C+I+G+ (X-M)

That is, Consumption spending (C), investment expenditure (I), government expenditure (G), and the trade balance, or the value of exports minus the value of imports (X – M), comprise aggregate demand. Thus, the inflationary gap is the product of excess demand.



Explanation:

- In the diagram:
  - AD curve represents the Aggregate demand at full employment.
  - AD' curve represents the Aggregate demand beyond the full employment.
  - Point A is the equilibrium, where AD=AS (the 45° line is the AS or Y curve).
  - Vertical area AB depicts inflationary gap, as here at point E, the aggregate demand BY_1 is greater than Aggregate Supply AY_1.
  - OY_1 is the full employment level of output.

- As the output could not be increased beyond the full employment level, prices will rise, and there will be a situation of inflation in the economy.

The following things can be useful in order to remove the gaps given below.

- **Cash Reserve Ratio:** The Cash Reserve Ratio (CRR) is the specified minimum fraction of total customer deposits that commercial banks must retain as reserves in cash or as deposits with the central bank.

  To curb inflationary gap, RBI decides to raise the Cash Reserve Ratio, due to which the quantity of money accessible to banks decreases, and the commercial bank's capacity to provide credit also falls. Hence the aggregate demand falls down with a low credit creation and supply of money in the economy.

- **Statutory Liquidity Ratio:** Statutory liquidity ratio (SLR) is the term used by the Indian government to describe the reserve requirement that commercial banks in India are required to hold in the form of cash, gold reserves, and government-approved securities before extending credit to consumers.

  To curb inflationary gap, RBI decides to raise the SLR, due to which the quantity of money accessible to banks decreases, and the commercial bank's capacity to provide credit also falls. Hence the aggregate demand falls down with a low credit creation and supply of money in the economy.

22. In an economy $C = 300 + 0.5Y$ and $I =$ Rs. 600 (where C is consumption, Y is income or investment). Calculate the following:

a. Equilibrium level of income

Ans: Given: $C = 300 + 0.5Y$ and $I =$ Rs. 600.

The equilibrium level of income is calculated as

$$Y = C + I$$

$$Y = 300 + 0.5Y + 600$$

$$Y = \frac{900}{0.5}$$

$$Y = 900 + 0.5Y$$

$$0.5Y = 900$$

$$Y = \frac{900}{0.5}$$

$Y =$ Rs. 1800

b. Consumption expenditure at equilibrium level of income.

Ans: The consumption expenditure at equilibrium level of income is calculated as

Y= C+I

1800 = C +600

1800-600= C

1200= C

23. If in an economy investment increases by Rs. 1000 lakhs to Rs. 1200 lakhs and as a result, total income raises by 800 lakhs, calculate MPS.

Ans: In this case, MPS would be

$\Delta I = 1200 - 1000$

$= 200$

$\Delta Y = 800$

$\Delta K = \frac{\Delta Y}{\Delta I}$

$= \frac{800}{200}$

$= 4$

$K = \frac{1}{MPS} = 4$

$MPS = \frac{1}{4}$

$= 0.25$

Therefore, the value of MPS is 0.25.

24. Explain the role of the following in correcting deficient demand in an economy.

a. Open market operations

Ans: The sale and purchase of government and other sanctioned securities by the central bank to commercial banks and other financial institutions is referred to as

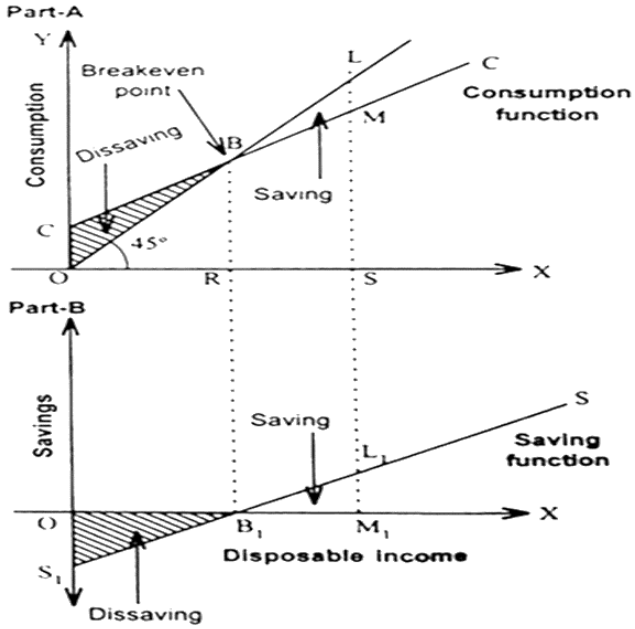
open market operation. When the economy's cash balance needs to be increased, especially when demand is low, the central bank purchases a number of securities. This improves commercial banks' cash holdings, allowing them to make more loans and advances. As a result, aggregate demand rises.

b. Bank rate

Ans: The bank rate is the interest rate at which the central bank loans to commercial banks. To control the situation of insufficient demand, the central bank reduces the bank rate. As a result of the central bank's drop in the bank rate, commercial banks lower the market rate of interest. This will result in cheaper borrowing costs from commercial banks for consumers and investors. This raises credit demand, resulting in additional liquidity in the hands of the people. Hence in this case the consumption and investment spending increases, and aggregate demand (AD) also rises.

25. Draw a hypothetical propensity to consume curve and from it draw a propensity to save curve.

Ans: The sum of consumption and saving is always equal to income because income is either consumed or saved. It implies that consumption and saving curves, which represent consumption and saving functions, are mutually exclusive. Thus, given the income, we can directly derive the saving function from the consumption function, as shown in Fig, which consists of Part A displaying the consumption function and Part B displaying the saving function.



- In Part A of the accompanying Figure, the CC curve represents the consumption function for each level of income, whereas the 45° line OL represents income.
- Because the 45° line divides the graph into two equal parts, each point on this line is equidistant from the X and Y axes.
- The CC curve intersects the 45° line OL at point B, where BR is equal to OR, i.e., consumption equals income.
- As a result, point B is known as the breakeven point. There is no saving at point B, but to its left, the consumption function is above the 45° line, indicating negative saving (dissaving), and to its right, the consumption function is above the 45° line, indicating positive saving.
- Part B now deduces the saving function in the form of a saving curve. Remember that the amount of saving (or dissaving) in Part A is the vertical distance between the CC curve and the 45° line.
- We can derive a saving curve by plotting vertical distances from Part A in Part B of the Figure and connecting them.

For example,

- In Part A, at 0 (zero) level of income, vertical distance OC (representing dissaving) is plotted as OS_1 in Part B.
- Similarly, at the OR level of income in Part A, the vertical distance between the CC curve and the 45° line at point B is nil (indicating zero saving) and is depicted as point Bj at the same level of income in Part B.
- LM vertical distance of part A is shown as L_1M_1 in Part B at the OS level of income. We get the saving curve by connecting the points St, Bt, and Lv. Thus, in the form of a saving curve, the saving function is diagrammatically derived from the consumption function. (Similarly, the consumption curve can be derived from the saving curve.)