

# ECONOMICS

(Macro-Economics)



## Important Questions

### Multiple Choice questions-

Q1. Supply creates its own Demand. Who gave this law?

- (a) J.B.Say
- (b) J.S.Mill
- (c) Keynes
- (d) Ricardo

Q2. If MPC is equal to 1, the value of the multiplier is

- (a) 0
- (b) 1
- (c) Between 0 and 1
- (d) Infinity

Q3. If the marginal propensity to consume is greater than the marginal propensity to save, the value of the multiplier will be:

- (a) greater than 2
- (b) less than 2
- (c) two equal to 2
- (d) equal to 5

Q4. If MPC is zero, the value of the multiplier is

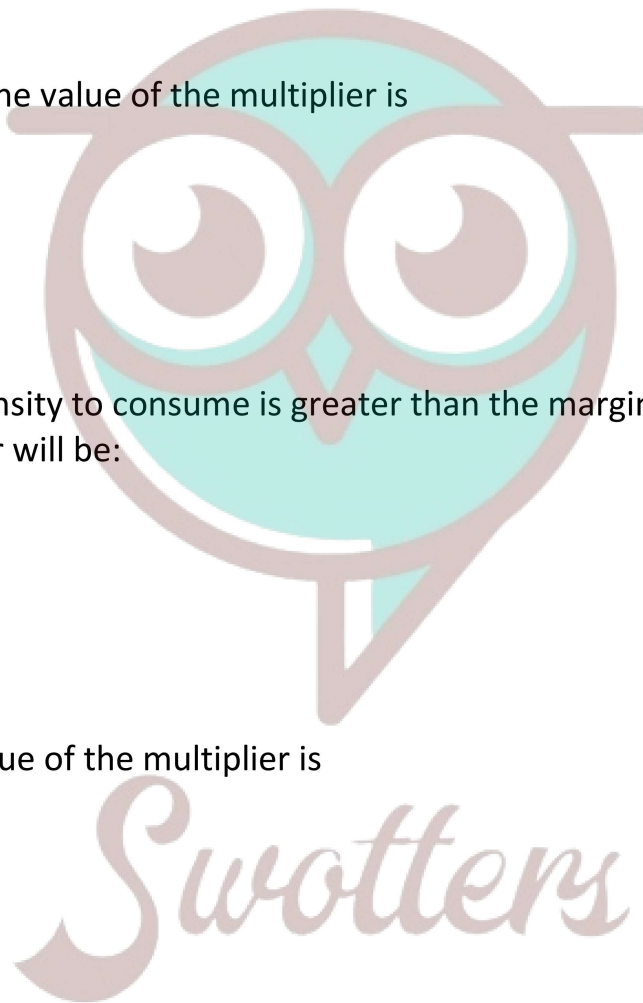
- (a) 0
- (b) 1
- (c) between 0 and 1
- (d) infinity

Q5. Average Propensity to Consume can never be .....

- (a) positive
- (b) zero
- (c) more than one
- (d) less than one

Q6. According to classical economists, there always exists an equilibrium in the economy.

- (a) Full employment



- (b) Underemployment
- (c) Over full employment
- (d) None of these

Q7. According to classical economists, real wage rate is ..... to the Marginal Productivity of Labour.

- (a) Equal
- (b) More
- (c) Less
- (d) None of these

Q8. On the basis of government law, the compulsory payment made by the public is known as .....

- (a) Expenditure
- (b) Investment
- (c) Tax
- (d) Subsidy

Q9. According to classical economists, there always exists ..... equilibrium in the economy.

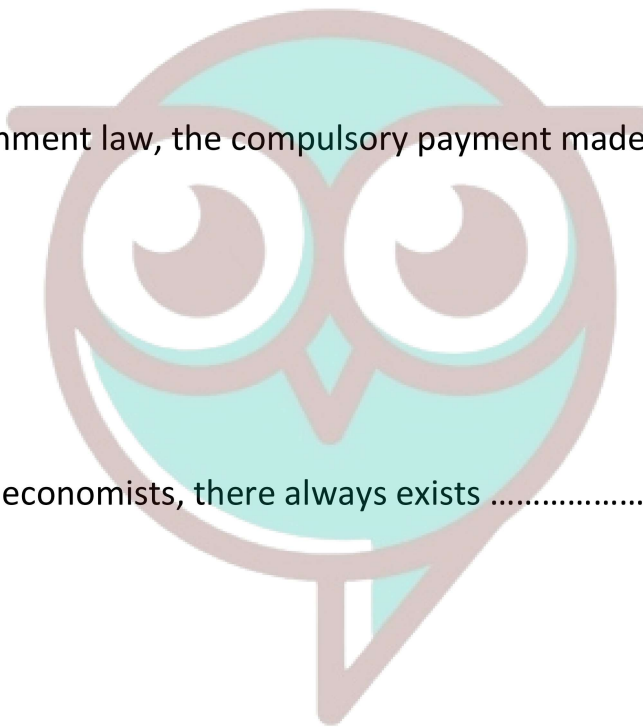
- (a) Full employment
- (b) Underemployment
- (c) Over full employment
- (d) None of these

Q10. What will be APC when  $APS = 0$ ?

- (a) One
- (b) Zero
- (c) Two
- (d) Infinite

Q11. If  $MPC = 1$ , the value of the multiplier is:

- (a) 0
- (b) 1
- (c) Between 0 and 1
- (d) Infinity



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Q12. Which is the measure of correcting excess demand?

- (a) Deficit financing
- (b) Reduction in taxes
- (c) Increase in public expenditure
- (d) Increase in public debt

Q13. If the marginal propensity to consume is greater than the marginal propensity to save, the value of the multiplier will be

- (a) greater than 2
- (b) less than 2
- (c) equal to 2
- (d) equal to 5

Q14. Supply creates its own Demand. Who gave this law?

- (a) J.B.Say
- (b) J.S.Mill
- (c) Keynes
- (d) Ricardo

Q15. Aggregate demand can be increased by:

- (a) increasing bank rate
- (b) selling govt, securities by RBI
- (c) increasing cash reserve ratio
- (d) none of these

### Very Short Questions-

1. What is the relation between APC and APS?
2. State the important factor influencing the propensity to consume in an economy.
3. Give the formula of investment multiplier in terms of MPC.
4. Write down the equation of saving function.
5. What is equilibrium income?

### Short Questions -

1. Explain the components of  $S = -a + (1-b)Y$
2. Can the average propensity to consume be greater than one? Give the reason for your answer.

3. Differentiate between ex ante and ex post investment.
4. Explain the working of a multiplier with an example.
5. Can the value of APS be negative? If yes, then when?

### Long Questions-

1. Define and represent the inflationary gap on a diagram. Explain the role of the varying reserves requirement in removing the gap.
2. In an economy  $C = 300 + 0.5Y$  and  $I = \text{Rs. } 600$  (where  $C$  is consumption,  $Y$  is income or investment). Calculate the following:
  - a. Equilibrium level of income
  - b. Consumption expenditure at equilibrium level of income.
3. 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.
4. Explain the role of the following in correcting deficient demand in an economy.
  - a. Open market operations
  - b. Bank rate
5. Draw a hypothetical propensity to consume curve and from it draw a propensity to save curve.

### Case Study Based Question-

1. Read the following hypothetical text and answer the given questions: -
  - a. Both Assertion and Reason are true and Reason (R) is the correct explanation of Assertion (A)
  - b. Both Assertion and Reason are true and Reason (R) is not the correct explanation of Assertion (A)
  - c. Assertion (A) is True but Reason (R) is False
  - d. Assertion (A) is False but Reason (R) is True

**Assertion:** At the Break-Even point, consumption is equal to National Income.

**Reason:** APC falls continuously with an increase in income as the proportion of income spent on consumption keeps on decreasing.

2. Read the following hypothetical text and answer the given questions: -
  - a. Both Assertion and Reason are true and Reason (R) is the correct explanation of Assertion (A)
  - b. Both Assertion and Reason are true and Reason (R) is not the correct explanation of Assertion (A)

- c. Assertion (A) is True but Reason (R) is False
- d. Assertion (A) is False but Reason (R) is True

**Assertion:** There is a positive relationship between saving and income.

**Reason:** Savings are positive even at zero level of National Income.

### Assertion Reason Type Question-

1. In these questions, a statement of assertion followed by a statement of reason is given. Choose the correct answer out of the following choices.
2. In these questions, a statement of assertion followed by a statement of reason is given. Choose the correct answer out of the following choices.

### MCQ Answers-

1. (a) J.B.Say
2. (d) Infinity
3. (a) greater than 2
4. (b) 1
5. (b) zero
6. (a) Full employment
7. (a) Equal
8. (c) Tax
9. (a) Full employment
10. (a) One
11. (d) Infinity
12. (d) Increase in public debt
13. (a) greater than 2
14. (a) J.B.Say
15. (d) none of these

### Very Short Answers-

**Ans 1:** 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.

**Ans 2:** It is always the level of income (Y) that impacts an economy's propensity to consume (C).

**Ans 3:** The formula of investment multiplier in terms of MPC is shown below.

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

**Ans 4:** 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

**Ans 5:** 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.

### Short Answers -

**Ans 1:** 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.

**Ans 2:** 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,

$$\begin{aligned} APC &= \frac{1200}{1000} \\ &= 1.20 \end{aligned}$$

**Ans 3:** 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.   |

**Ans 4:** 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              | $\Delta I$          | $\Delta Y$          | $\Delta C$                       |
|---------------------|---------------------|---------------------|----------------------------------|
| 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  $MPC = \frac{4}{5}$ , 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.



$$\begin{aligned}
&= 1000 + \frac{4}{5} \times 1000 \left(\frac{4}{5}\right)^2 \times 1000 \left(\frac{4}{5}\right)^3 \times 1000 + \dots \dots \dots \infty \\
&= 1000 \left[ 1 + \frac{4}{5} + \left(\frac{4}{5}\right)^2 + \left(\frac{4}{5}\right)^3 + \dots \dots \dots \infty \right] \\
&= 1000 \left[ \frac{1}{1} - \frac{4}{5} \right] \\
&= 1000 \times \frac{5}{1} \\
&= \text{Rs. 5000 crores.}
\end{aligned}$$

**Ans 5:** 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.

$$Y = C - S$$

$$S = C - Y$$

$$S = 1000 - 1200$$

$$S = -200$$

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

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

$$APS = -0.2$$

### Long Answers-

**Ans 1:** 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.

Diagram

(Image will be Uploaded Soon)

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 BY1 is greater than Aggregate Supply AY1.
- OY1 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.

**Ans 2: (a) Given:**

$$C = 300 + 0.5Y$$

$$I = \text{Rs. } 600.$$

The equilibrium level of income is calculated as

$$Y = C + I$$

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

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

$$Y = 900 + 0.5Y$$

$$0.5Y = 900$$

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

$$Y = \text{Rs } 1800$$

**(b)** The consumption expenditure at equilibrium level of income is calculated as

$$Y = C + I$$

$$1800 = C + 600$$

$$1800 - 600 = C$$

$$1200 = C$$

**Ans 3:** In this case, MPS would be

$$\Delta I = 1200 - 1000$$

$$= 200$$

$$\Delta Y = 800$$

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

$$= \frac{800}{200}$$

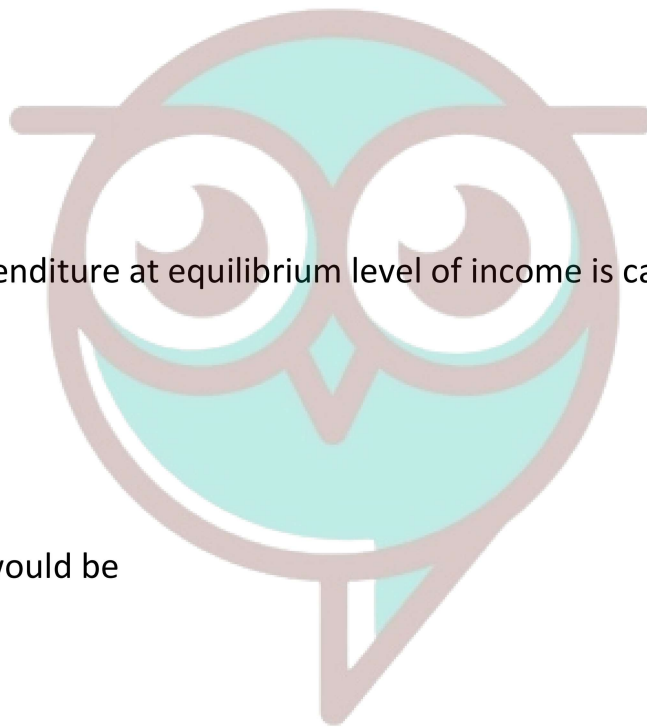
$$= 4$$

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

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

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

$$= 0.25$$



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Therefore, the value of MPS is 0.25

**Ans 4:** (a) 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) 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.

**Ans 5:** 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.

(Image will be Uploaded Soon)

- In Part A of the accompanying Figure, the CC curve represents the consumption function for each level of income, whereas the  $45^\circ$  line OL represents income.
- Because the  $45^\circ$  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  $45^\circ$  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  $45^\circ$  line, indicating negative saving (dissaving), and to its right, the consumption function is above the  $45^\circ$  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  $45^\circ$  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 OS1 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 L1M1 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.)

### Case Study Answer-

#### 1. Answer:

1. a) absolute poverty
2. Poverty line
3. Consumption
4. per capita expenditure

#### 2. Answer:

1. d) All of the above
  2. Casualization
  3. Gini Coefficient
- d) all the above

### Assertion Reason Answer-

1. b) Both Assertion and Reason are true and Reason (R) is not the correct explanation of Assertion (A)
2. c) Assertion (A) is True but Reason (R) is False



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