Con of In & Mul - Reason-Based (Comp. of Sub)

Q.1. Autonomous investment increases with increase in the level of income.

Ans. False. Because, autonomous investment does not change with any change in the level of income. It remains constant, no matter what the level of income is in the economy.

Q.2. Ex-ante investment is the desired investment.

Ans. True. Ex-ante investment is the desired investment or planned investment. This is the investment expenditure which is intended to be made in the economy during the period of an accounting year.

Q.3. Saving and investment are always equal.

Ans. False. Saving (S) and investment (I) can be realised (ex-post) or planned (ex-ante). Planned S and planned I are equal only at equilibrium level. Realised S and realised I are always equal.

Q.4. There is an inverse relationship between the value of marginal propensity to save and investment multiplier.

Ans. True. Marginal propensity to save (MPS) and multiplier are negatively related. Higher the MPS, lower the multiplier and lower the MPS, higher the multiplier, as $K = \frac{1}{MPS}$. Saving is a leakage in the circular flow of income. Greater the saving, greater the leakage and lower the value of investment multiplier.

Q.5.

$$\textbf{Value of multiplier} = \frac{1}{1 - MPS}.$$

Ans.

False. Value of multiplier (K) $= \frac{1}{1 - MPC} = \frac{1}{MPS}$. The proof is as under:

We know that, $K = \frac{\Delta Y}{\Delta I}$ ...(*i*)

We also know that, $\Delta Y = \Delta C + \Delta I$

Or, $\Delta I = \Delta Y - \Delta C$

Substituting the value of ΔI in equation (*i*), we get

$$K = \frac{\Delta Y}{\Delta Y - \Delta C}$$

Dividing right hand side of the equation by ΔY,

$$K = \frac{\frac{\Delta Y}{\Delta Y}}{\frac{\Delta Y}{\Delta Y} - \frac{\Delta C}{\Delta Y}} = \frac{1}{1 - \frac{\Delta C}{\Delta Y}}$$

$$= \frac{1}{1 - MPC} = \frac{1}{MPS} \qquad (\because MPS = 1 - MPC)$$

Hence verified.

Q.6. When MPC = 0, the value of investment multiplier is also zero.

Ans. False. The value of investment multiplier (K) is 1, when MPC = 0.

We know, $$K = \frac{1}{1 - MPC}$$

When MPC = 0,

$$K = \frac{1}{1 - 0} = 1$$

Q.7. Value of multiplier will be infinity if entire additional income is converted into additional consumption.

Ans. True. Because, in such a situation, DC = DY (or change in consumption = change in income) or that

$$MPC = \frac{\Delta C}{\Delta Y} = 1$$

Accordingly, K (or multiplier) would be:

$$K = \frac{1}{1 - MPC} = \frac{1}{1 - 1} = \frac{1}{0} = \infty$$

The multiplier value would tend towards infinity.

Q.8. When marginal propensity to save is less than marginal propensity to consume, the value of investment multiplier will be greater than 5.

Ans. False. We know, MPC + MPS = 1. When MPS < MPC, the value of MPS can be anything less than 0.5 and greater than 0. Let us assume MPS = 0.4. The value of investment multiplier (K) in this case will be,

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

$$= \frac{1}{0.4} = 2.5$$

Which is less than 5.

Similarly, when the value of MPS = 0.3, the value of K will be 3.33 which is less than 5 and when MPS = 0.2, K will be 5 which is also not greater than 5 but equal to 5.Hence, only when the value of MPS is less than 0.2 that the value of investment multiplier will be greater than 5.

Q.9. Value of investment multiplier varies between one and infinity.

Ans. True. Value of investment multiplier varies between one and infinity. The minimum value of investment multiplier is = 1, when MPC = 0. The maximum value of investment multiplier is = ∞, when MPC = 1.

In case MPC = 0,

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

$$= \frac{1}{1-0} = \frac{1}{1} = 1$$

In case MPC = 1,

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

$$= \frac{1}{1-1} = \frac{1}{0} = \infty$$

So that value of K (multiplier) always varies between 1 and ∞.

Q.10. When as a result of increase in income from 1,600 to 2,600, investment increases by 400. The value of MPC will be equal to 0.4.

Ans.

False. The value of MPC will be equal to 0.6.

Here, $\Delta Y = 2,600 - 1,600 = 1,000$ and $\Delta I = 400$

We know that, $K = \frac{\Delta Y}{\Delta I}$

$\Rightarrow$ $K = \frac{1,000}{400} = 2.5$

We also know that, $K = \frac{1}{1-MPC}$

Or, $1 - MPC = \frac{1}{K}$

Or, $1 - MPC = \frac{1}{2.5}$

Or, $1 - MPC = 0.4$

Or, $MPC = 1 - 0.4 = 0.6$