CBSE Test Paper-04

Chapter 03 Determination of Income and Employment

1. If the initial increase in the investment is Rs 1000 and MPC=0.8, there is a total increase in the income by **(1)**

   a. Rs. 1000
   b. Rs. 5000
   c. Rs. 6000
   d. Rs. 500

2. The value of APS can be negative when **(1)**

   a. The value of consumption does not exceed the value of income
   b. The value of consumption exceeds the value of income
   c. The value of consumption is equal to the value of income
   d. The value of consumption is less than the value of income

3. If APC is 0.7 then APS will be **(1)**

   a. 1
   b. 0.3
   c. 0.7
   d. 0.4

4. APC = 1 - APS. It is **(1)**

   a. Depends on their values
   b. True.
   c. False.
   d. None of these

5. What is consumption function? **(1)**

6. What is meant by excess demand in macroeconomics? **(1)**

7. Give the meaning of involuntary unemployment. **(1)**

8. What is involuntary unemployment ? Mention any two ways to remove such a kind of unemployment. **(1)**

9. Complete the following table. **(3)**

Income (Y)	**Consumption (C)**	**Marginal Propensity to Save (MPS)**	**Average Propensity to Consume (APC)**
0	15		
50	50	.....	.....
100	85	.....	.....
150	120	.....	.....

10. In an economy investment expenditure is Rs. 1,000, autonomous consumption is Rs. 500 and Marginal Propensity to Save is 0.2. Calculate its equilibrium level of income. **(3)**

11. Explain the distinction between ex-ante measures and ex-post measures **(4)**

12. What is the investment demand functions ? **(4)**

13. An economy is in equilibrium. Calculate the investment expenditure from the following: **(4)**
    National Income = 800
    Marginal Propensity to Save = 0.3
    Autonomous Consumption = 100

14. Explain how the economy achieves equilibrium level of income using Savings-Investment (S-I) approach. **(6)**

15. Briefly explain the concept of under employment equilibrium with the help of diagram. How increase in investment helps in achieving, full employment equilibrium? **(6)**

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Answers

1. b. Rs. 5000
   Explanation: K=1/1-MPC=1/1-0.8=1/0.2=5.
   It means that income will multiply five times the initial income.
   So, New income= 5×1000=5000.
2. b. The value of consumption exceeds the value of income
   Explanation: When consumption expenditure exceeds income,we have negative savings.
   Thus, APS being function of saving is negative.
3. b. 0.3
   Explanation:
   Given, APC=0.7
   APS=1-APC= 1-0.7= 0.3
4. b. True.
   Explanation:
   APS + APC = 1
   Or APC = 1 - APS.
5. Consumption function is expressed as $C = \overline{C} + bY$
   where $\overline{C}$ refers to the autonomous consumption , b is the MPC and Y is the income.
6. When Aggregate Demand is more than the Aggregate Supply corresponding to full employment in an economy is called excess demand situation.
7. A situation in the economy when people are willing to work at existing wage rates but they are not getting work is called Involuntary unemployment.
8. It is a situation under which all those people, who are willing and able to work at the existing wage rate, do not get work.
   Ways :

a. More investment
b. Migration

9.

Income (Y)	Consumption (C)	Saving (S) (Y-C)	Marginal Propensity to Save	Average Propensity to Consume
0	15	-15	-	-
50	50	0	0.3	1.0
100	85	15	0.3	0.85
150	120	30	0.3	0.8

Formulae used here:
S = Y - C, MPS =Change in savings/Change in income, APC = C/Y.

10. The equilibrium level of income is as follows:
It is given that Investment (I) = Rs 1,000,
Autonomous Consumption $(\overline{C})$ = Rs 500,
Marginal Propensity to Save (MPS) = 0.2,
Income (Y) = ?
We know that, MPC = 1 - MPS = 1 - 0.2 = 0.8
At equilibrium level we have,
Y = C + I and $C = \overline{C} + (MPC)Y$
$\therefore Y = \overline{C} + (MPC)Y + I$
$\Rightarrow \quad Y = 500 + (0.8)Y + 1,000$
0.2Y = 1,500 $\Rightarrow$ Y = Rs 7,500.

11. The actual or accounting values of consumption, saving, investments or the total value of final goods and services produced in the economy (GDP) are termed as ex-post measures of these items. So ex post investment means the realised or actual investment, ex post consumption means the realised or actual consumption. Ex ante measures means planned level of investment or consumption. It is that investment or consumption that is desired to be made by the people at different levels of income in an economy. Suppose, the producer plans to add Rs. 100 worth goods to his stock by the end of the year. His planned investment is, therefore, Rs. 100 in that year. This is

his ex ante investment. However, due to an unforeseen upsurge of demand for his goods in the market the volume of his sales exceeds what he had planned to sell and, to meet this extra demand, he has to sell goods worth ₹ 30 from his stock. Therefore, at the end of the year his investment becomes ₹ (100 - 30) = ₹ 70 only. His planned investment is ₹ 100 (ex ante investment) whereas his actual investment (ex post investment) is Rs 70 only.

12. Investment demand function is the relationship between rate of interest and investment demand. There is an inverse relationship between rate of interest and investment demand. Higher rate of interest implies lower level of investment demand. This is because higher rate of interest is to be matched with equally higher marginal efficiency of capital. We know, MEC starts reducing as investment level is raised. Accordingly, investment demand would increase only corresponding to lower level of MEC along with lower level of rate of interest.

13. **Calculation of Investment Expenditure:**
    Given,

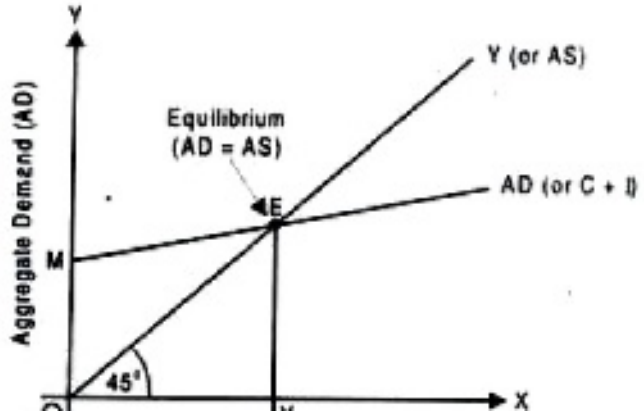
    i. Autonomous Consumption ($\overline{C}$) =100
    ii. National Income (Y) = 800
    iii. Marginal Propensity to Save (MPS) = 0.3

    Calculation of Marginal Propensity to Consume:
    (MPC or b)= 1 - MPS= 1-0.3 = 0.7
    As the economy is in equilibrium, therefore,
    Saving = Investment
    So, Income (Y) = Consumption (Q + Investment (I)
    Also we know that C = $\overline{C}$+ bY
    Y = C + b Y + I
    On substituting the variables in equation ,
    we get 800 = 100+ 0.7(800) + I
    700= 560 + I = 140

    ∴ **Investment Expenditure** = **Rs.140**

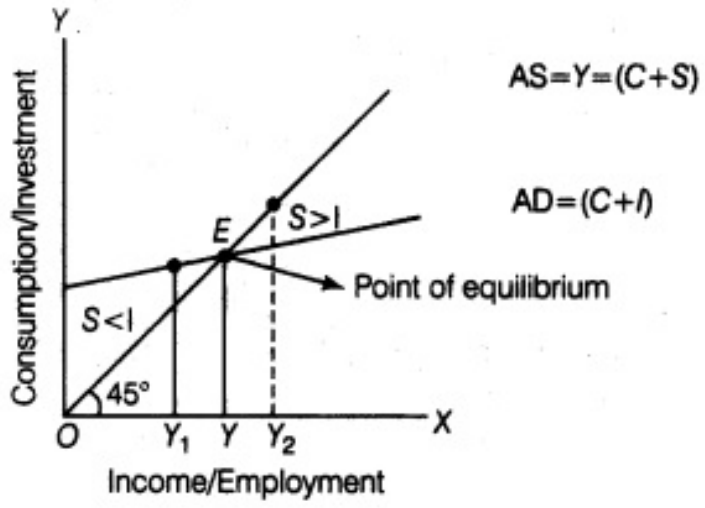
14. i. It refers to the point that has come to be established under the given condition of

aggregate demand and aggregate supply, and has tendency to stick to that level under this given condition where Aggregate Demand
(AD) = Aggregate Supply (AS).
AD = AS



CONSUMPTION(C) + Investment(I) = CONSUMPTION(C) + Saving(S)
I = S

ii. If due to some disturbance, we divert from that position, the economic forces will work in such a manner so as to drive us back to the original position, i.e., Saving id equal to Investment.



iii. In the above figure, the equilibrium level of national income is attained at point E, where saving = investment which is derived from a point where S = I.

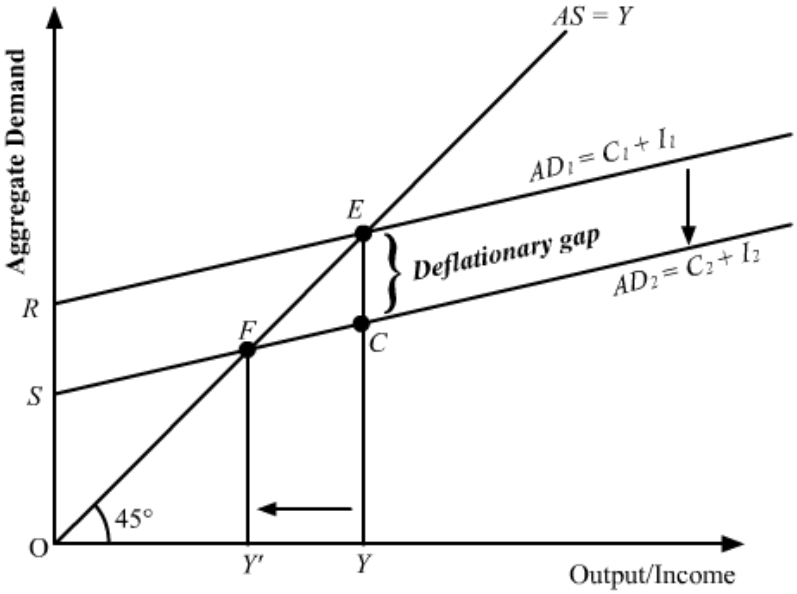
iv. If due to some disturbance we divert from our position like when investment > saving [at Y_1], then production will have to be increased to meet the excess demand. Consequently, national income will increase leading to rise in saving until saving becomes equal to investment. It is here that equilibrium level of

income is established because what the savers intend to save becomes equal to what the investors intend to invest.

v. As against it, when saving > investment [at Y_2], then there would be stockpiling and producers will produce less. National income will fall and as a result saving will start falling until it becomes equal to investment. It is here the equilibrium level of income is derived.

15.

- Due to the deficiency in the aggregate demand, there exists a difference (or gap) between the actual level of aggregate demand and full employment level of demand. This difference is termed as a deflationary gap. This gap measures the amount of deficiency in the level of aggregate demand. Graphically, it is represented by the vertical distance between the aggregate demand at the full employment level of output **(AD_F) and the actual level of aggregate demand (AD_E).** In the figure below, *EY* denotes the aggregate demand at full employment level of output and *CY* denotes the actual aggregate demand. The vertical distance between these two represents the deflationary gap. That is,
- *EY – CY = EC* (Deflationary Gap)
- Let us understand the situation of under-employment equilibrium with the help of the following figure.



In the figure, AD_1 and AS represents the aggregate demand curve and aggregate supply curve. The economy is at full employment equilibrium at point '*E*', where AD_1 intersects *AS* curve. At this equilibrium point, *OY* represents the full employment level

of output and *EY* is the aggregate demand at the full employment level of output.
Let us suppose that the actual aggregate demand for output is only *CY*, which is lower than *EY*. This implies that actual aggregate output demanded by the economy *CY* falls short of the potential (full employment) aggregate output *EY*. Thus, the economy is facing a deficiency in demand. This situation is termed as deficit demand. As a result of the deficit demand, a deflationary gap arises. The deflationary gap is measured by the vertical distance between the potential (or full employment level) aggregate demand and the actual aggregate demand for output. In other words, the distance between *EY* and *CY*, i.e. *EC* represents the deflationary gap.
In this case, the producers will experience piling up of unsold stock due to a deficiency in demand. As a result, the producers will attempt to clear the stock of unsold goods by reducing the production of output, thereby reducing employment level. The producers will continue to reduce the production till the new equilibrium is reached at point '*F*', where the new aggregate demand curve AD_2 intersects the AS curve. At this new equilibrium, the economy is producing *OY´* level of output and the aggregate output demanded by the economy is *FY´*. The new equilibrium level of output, income and employment is lesser than that of at the full employment level of equilibrium. Thus, it can be observed that due to the deflationary gap created by the deficit demand, the economy has attained a less than full employment level of equilibrium or under-employment level of equilibrium at point C.

- Additional investment expenditure required to attain full employment level of equilibrium is **"RS"**