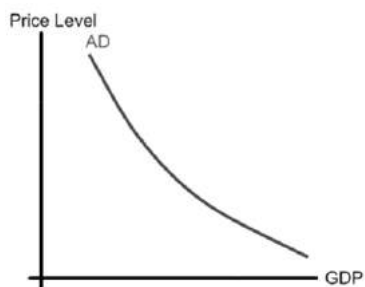# Macro Economics
Determination of Income and Employment

Aggregate Demand (AD)

- Refers to the total amount of all goods and services planned to be procured by all sectors of the economy at a certain level of revenue over a period of time.
- AD means the total cost of goods and services in the economy over a period of time.

Components of Aggregate Demand for an Open Economy:

- Household costs (C).
- Investment costs (I).
- Government spending expenditure (G).
- Exported amount (X - M).

Therefore,

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

Components of Aggregate Demand for a Closed Economy:

- Three-tier economy;

 AD = C + I + G

- Bilingual economy;

 AD = C + I

Ex-ante aggregate demand:

- The word ex-ante refers to something that is already planned.
- Thus, an integrated search is planned.

Ex-post aggregate demand:

- Consumer actual costs and business investments are included in the pre-consolidated requirements.
- In other words, the ex-post describes what really happened.

Aggregate Supply (AS):

- The monetary value of all goods and services ultimately purchased by the economy over a period of time.
- Refers to the transportation of goods and services to the economy.

- The AS is no higher than the national income because the value of the final goods and services is equal to the additional value.

$$AS = C + S$$

The Aggregate Supply represents national income.

AS = Y (National Income)

Consumption function:
- Household income is the most important factor in determining its use.
- The relationship between expenditure and revenue is defined by expenditure activity.
- Basic consumer activity assumes that consumption varies at the same rate as revenue.
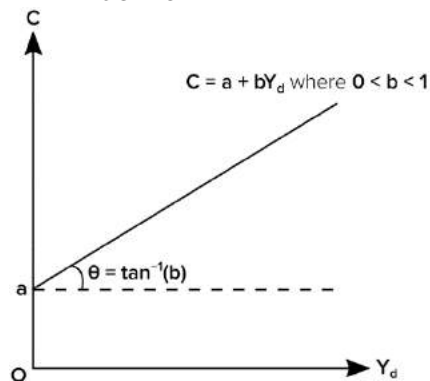
Equation of Consumption Function:

$C = \bar{C}^{---} + cY \quad C = \bar{C} + cY$

C = Consumption

$\bar{C}^{---}\ \bar{C}$ = Autonomous consumption

cY = Induced consumption

Y = Income

The Consumption curve starts at the Y axis because, even if the revenue is zero, there is some use.

Autonomous consumption:
- Autonomous consumption is defined as $\bar{C}^{----}\ \bar{C}$ and represents non-revenue expenditure.
- If consumption occurs even if income is zero, it is due to automatic use.
- Therefore these uses are not independent of Income.

Induced consumption:
- The consumer component, CY, shows dependence on the use based on revenue / revenue.
- Therefore, these uses depend on income.

Propensity to Consume:
There are two types of Propensity to Consume:

a. Average Propensity to Consume (APC):

- Refers to the per unit of Income.
- Defined as $\frac{C}{Y}$

Points to Remember About APC-

- APC> 1: APC is greater than one if consumption exceeds national income before the point of division i.e. APC> 1.
- **APC = 1:** If APC = 1, usage is equal to the national income in the rest area.
- APC <1: If the APC is less than one after the use of the break point exceeds the national revenue.
- Inverse Relations with income: APC declines as revenue grows, which is why revenue and APC are negatively related.
- APC **will never be zero:** APC will never be zero because independent use exists even at zero national income.

b. Marginal Propensity to Consume (MPC):

- Conversion of revenue per unit per change in consumption.
- Represented by c and equals $\frac{\Delta C}{\Delta Y}$, where ΔC is a change in usage and ΔY is a change in revenue.
- That is MPC = $\frac{\Delta C}{\Delta Y}$

  Points to Remember About MPC-
- MPC = 1: If all revenue is spent, it means $\Delta C = \Delta Y$, which leads to MPC = 1.
- MPC = 0: However, if all additional income is saved, $\Delta C = 0$, and MPC = 0.
- Constant MPC: MPC is the slope of the application curve, and remains constant for a short period of time.
- APC value> MPC.

Saving Function:

- The working relationship between saving and national income is called Saving Function.

Equation of Saving Function

S = f (y)

There,

S = Saving

Y = National Currency

f = Working relationships.

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

Here,

1-b = MPS

Y = Income

-a = saving, when Y is 0

Propensity to Save
Propensity to save is of two types:

a. Average Propensity to Save (APS):
- Refers to savings per unit of revenue.
- Described as SYSY
- Points to Remember About APS
- Savings can never be equal or greater than income, so APS cannot be one or more than one.
- During breaks, when C = Y, APS can be zero, as here S = 0. This is because if a person eats the equivalent of what he earns, there is no saving.
- If expenditure exceeds revenue levels below the rating point, APS may be negative.
- With rising revenue, APS increases. Therefore, APS and revenue are directly related.

b. Marginal Propensity to Save (MPS):
- It is a change in savings per unit of salary change.
- Represented by s and equal to 1-c. This is because 1 is perfect, and if we reduce its use, we can gain savings.
- It follows, S + C = 1, that is, the total amount of savings and consumption is equal to one.
- That is $MPS = \Delta S \Delta Y \Delta S \Delta Y$
- Points to Remember With MPS
- MPS ranges from 0 to 1.
- MPS is a slope of the savings curve.
- Slowly, MPS is permanent.

Relationship between APC and APS
The product of APC and APS is equal to one.
It can be shown as follows:
APC + APS = 1.
Y = C + S
Dividing both sides by Y, we find
$YY = CY + SY$ $YY = CY + SY$
That,
1 = APC + APS
For example, $APC = CY, APS = SY$ $APC = CY, APS = SY$
Therefore,
APC + APS = 1

Relationship between MPC and MPS

We know MPC + MPS = 1
Also,
Y = C + S
So
$\Delta Y = \Delta C + \Delta S$ $\Delta Y = \Delta C + \Delta S$ - (i)
There,
$\Delta C = \Delta C$ = Change in Consumption
$\Delta Y = \Delta Y$ = Change in income
$\Delta S = \Delta S$ = Changes in Savings

Also,
$MPC = \Delta C \Delta Y$ $MPC = \Delta C \Delta Y$
Also,
$MPS = \Delta S \Delta Y$ $MPS = \Delta S \Delta Y$
Therefore to divide the q (i) by a change in Y on both sides
$\Delta Y \Delta Y = \Delta C Y + \Delta (Y - C) \Delta Y$ $\Delta Y \Delta Y = \Delta C \Delta Y + \Delta (Y - C) \Delta Y$
$1 = \Delta C \Delta Y + \Delta S \Delta Y$ $1 = \Delta C \Delta Y + \Delta S \Delta Y$
$1 = MPC + MPS$

Investment:
* An investment is an asset or commodity that is acquired for profit or inflation. An increase in the value of an asset over time is called appreciation.

Two head of investment:
* Induce Investment: Defined as an investment based on profit expectations and which is directly influenced by the level of revenue.
* Autonomous Investment: It is defined as an investment that can be affected by changes in income and that can only be driven by profit motive.

Ex-ante Investment:
* Ex-ante investment refers to the investment made by firms in the economy over a period of time. Planning is done with future expectations in mind.

Ex-post Investment:
* This refers to the actual investment made by all entrepreneurs in the economy over a period of time. It is the result of real investment.

Equilibrium level of income
* Equal rate of revenue is determined only if AD = AS or S = I, that is, when the flow of goods and services in the economy equates to the demand for goods and services.

- However, it will not always be fully operational and may be subject to full employment.

Short Run equilibrium Outputs:
The actual GDP amount that will occur if AD cuts Short Run Aggregate Supply in the macroeconomic estimate of the value of the combined product produced.

Assumption:
- Closed Economy: In the framework of the two-sector model (cities and firms), the determination of equity output will be investigated. It means that there is no government or international sector. Thus that $AD = C + I$
- Self-Contained Investment: It is assumed that investment costs are independent, that is, investments are not affected by income levels.
- Short-period analysis: This analysis refers to short-term only.

AD-AS APPROACH:
- Output rate where Combined Demand is equal to Combined Delivery (AD = AS) in the economy.
- It shows that whatever the producers intended to produce during the year is exactly the same as what the consumers intended to buy during the year.

Here,
$AD = C + I$ (bilingual economy), and
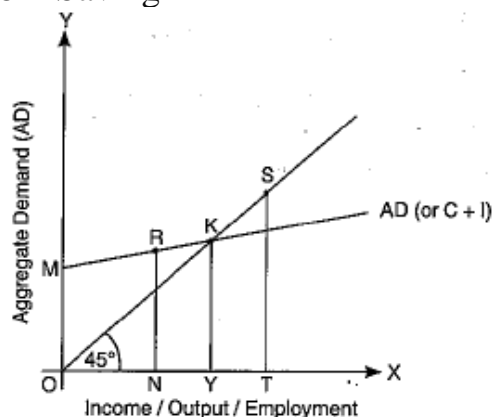$AS = C + S$
That,
AD = Combined Need,
AS = Integrated Offering,
C = Usage,
I = Investment,
S = Saving

The diagram represents the combined need, as well as the equilibrium state in area K, where $AD = AS$, and the level of equity output in Y-area.

Two different situations:

- AD> AS: In this case the combined need exceeds the combined supply, and the condition of unmet need persists. To prevent this situation, manufacturers will improve the quality of production and production in such a way that the AS can grow and become AD, and the equity is restored. This is shown as an R-point in the diagram, where AD> AS.
- AD <AS: In this case the combined demand is less than the combined supply, and the condition of unwanted stocks continues. To prevent this situation, producers will reduce output and production in such a way that the AS decreases and equals AD, and the equity is restored. This is shown as point S in the diagram, where AD <AS.

Saving Investment Approach:
- It is a measurement point, where S = I. Here, S = savings, or withdrawals, and I = investment, or injections.
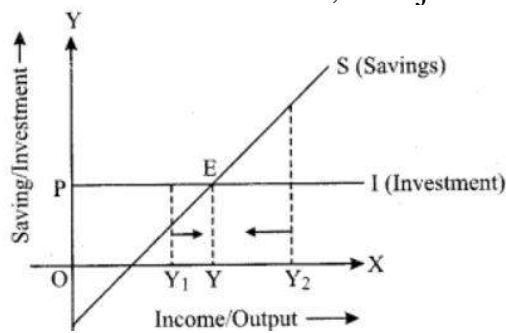
Description of the diagram-
- Point E in the diagram represents the measurement point where S = I. The amount of money withdrawn (S) from the economy is equal to the amount of money invested (I) in the economy at this point.
- In economics, AD = AS at this level.

Two situations:
- S> I: Currently, some expectations are still not for sale, forcing companies to keep unsold items in hand. In order to remove the shares, manufacturers will reduce production, leading to a decline in productivity. As a result, economic revenues are declining. Low income means fewer saving, and this cycle will continue until savings are the same as investment.
- S> I: People spend more than they need to buy the proposed product if S> I. This means that AD outperforms AS in the economy. As a result, manufacturers will increase production to compensate for the situation. As a result, investment rises to the point where it is similar to investing.

Equilibrium
Thus, equality is achieved when:
AD = AS ... (i)

We already know that AD is a Total Use (C) and Investment (I):

AD = C + I ... (ii)

Additionally, AS is a total use (C) and savings (S):

AS = C + S ... (iii)

If we add (ii) and (iii) to (i), we get:

C + S = C + I, or

S = I

Note: It is important to remember that AD, AS, Savings, and Investment are all old variables.

Types of Employment

- Full-time employment: This happens when all those who are able and willing to work at the current salary level are given the opportunity to do so.
- Voluntary unemployment: This occurs when a person is able to work but is not willing to work with the current wage.
- Involuntary unemployment: This occurs when an employee is able and willing to work at the available price but is unable to find employment.
- Under employment: Occurs when all those who can work at current rates are unable to find employment. Refers to the economic situation in which AS = AD or S = I, but there is not sufficient use of force by workers.

Multiplier Mechanism:

- The reviewer shows us what the change will eventually be due to the change in investment. Changes in investment lead to changes in revenue.
- Combined demand increases as independent measures (A) increase.
- As a result, productivity and revenue will increase in the next round, resulting in increased consumption and AD. This is called the repetition method.
- Represented by:

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

Multiplication performance can be illustrated using the table below, which is based on usage, i.e., $\Delta K = 1000 \Delta K = 1000$ and MPC = 45.MPC = 45.

Working of Multiplication:

The monetization process is shown below.

Rounds	$\Delta I \Delta I$	$\Delta Y \Delta Y$	$\Delta C \Delta C$
1	1000	1000	$45 \times 1000 = 800 45 \times 1000 = 800$
2	-	800	$45 \times 800 = 640 45 \times 800 = 640$
3	-	640	$45 \times 640 = 512 45 \times 640 = 512$
4	-	512	$45 \times 512 = 409.6 45 \times 512 = 409.6$
$\downarrow\infty\downarrow\infty$	$\downarrow\infty\downarrow\infty$	$\downarrow\infty\downarrow\infty$	$\downarrow\infty\downarrow\infty$
	Total	**5000**	

According to the table above, as MPC = 45, MPC = 45, the initial investment increase of Rs 1000 results in a total increase of revenue of Rs 5000. From the total increase in revenue, Rs. 4000 will be used and Rs. 5,000 will be saved. The acquisition of the increase in total income is shown below.

= 1000 + 45 × 1000 (45) 2 × 1000 (45) 3 × 1000 + ……… ∞ = 1000 + 45 × 1000 (45) 2 × 1000 (45) 3 × 1000 + ……… ∞

= 1000 [1 + 45 + (45) 2+ (45) 3 + …… .∞] = 1000 [1 + 45 + (45) 2+ (45) 3 + …… .∞]

= 1000 [11−45] = 1000 [11−45]

= 1000 × 51 = 1000 × 51

= Rs. 5000 crores. = Rs. 5000 crores.

Investment Multiplier:
- Recurring investment (K) is the rate of change of income (Y) created by a change in investment (I).
- The value of investing varies from one to one.
- K = △ Y △ IorK = 11 − MPCorK = 1MPSK = △ Y △ IorK = 11 − MPCorK = 1MPS

Excess Demand: Occurs when the combined demand exceeds the total amount, resulting in full employment.
Reasons for excessive demand:
- Increased demand for home consumption due to increased food consumption.
- Increased demand for private investment due to high availability and access to credit facilities.
- High public (government) costs.
- Increased export demand.
- Increased revenue
- Increased income.
- Impact of Excess Demand for:
- General Price Rate: The average inflation rate rises as when the combined demand exceeds the total value of employment at the full employment level, there is a tendency for inflation in the economy.
- Output: It has no effect on output, as the economy is already at full employment level, so there is no capacity to do nothing. Therefore, one cannot elevate the output beyond what one is already doing.
- Employment: No impact on employment level. The economy is already operating with full employment equity.
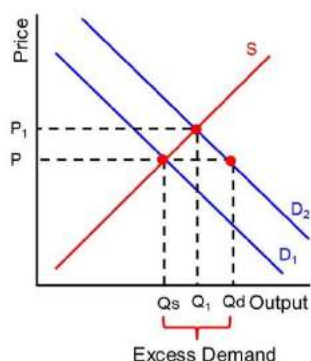
Deficit Demand: Occurs when AD is deficient in AS in full function. To put it another way, AD <AS is fully monitored. It is called a shortage.

Reasons for Deficit Demand:
- Decreased demand for home consumption due to reduced food intake.
- Decreased demand for private investment due to limited supply and access to credit facilities.
- Reduction of public (government) costs.
- Decreased export demand.
- Decreased income
- Decreased income.
- Impact of Deficit Demand:
- Normal Price Rate: The average inflation rate decreases as when the combined demand is less than the combined supply at the full level of employment, there is a tendency for inflation in the economy.
- Output: Low output levels, due to unemployment, and declining investment.
- Employment: Low levels of employment, as there will be a case of automatic inactivity.
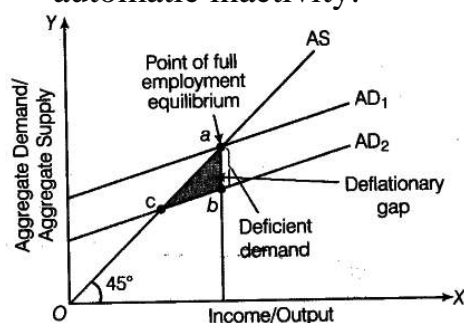
Inflationary Gap:
- The difference between the actual amount of demand and the level of total demand required for full employment is known as the inflation gap.
- Assesses the magnitude of the excess need.
- The central FE field represents the inflation gap, as here the supply volume, EM, is less than the combined FM demand.
- As the result will not be higher than the full employment rate, prices will rise, and there will be a downturn in the economy.

Deflationary Gap:
- Deflation gap refers to the difference between the need for the actual amount and the level of total demand required for full employment.
- Assessing the level of demand.
- The space between a and b indicates the inflation gap, as here the Combined Grant is larger than the combined demand.

Fig. 2 A & B.
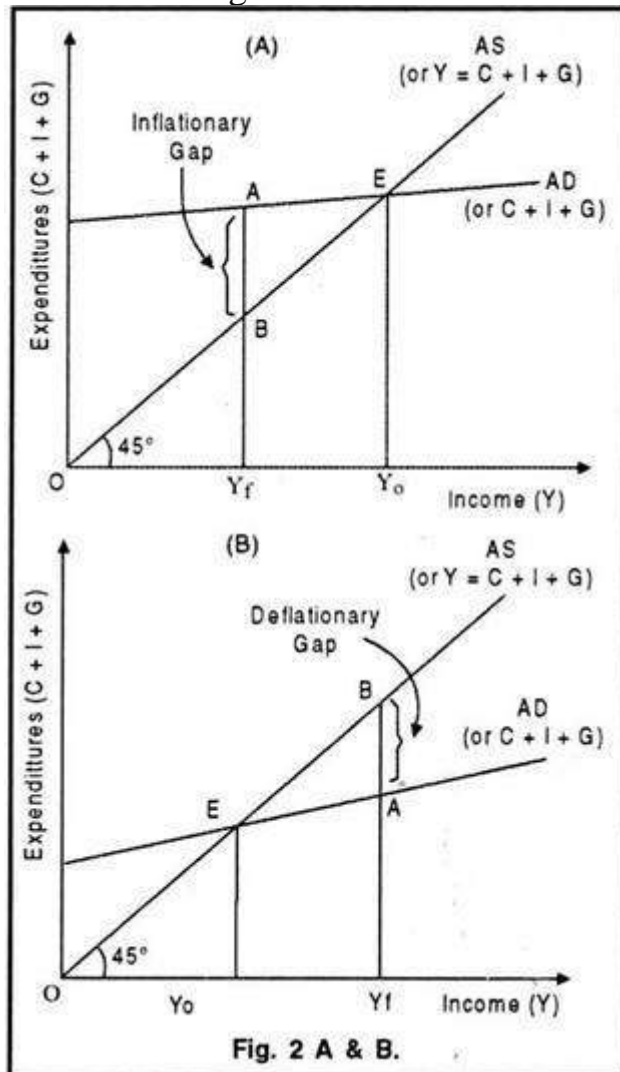
Mechanism to control Excess and Deficient Demand
1. Fiscal Policy:
Fiscal policy refers to general government expenditure and revenue policies used to achieve its objectives. Includes:
a. Tax change:
Taxes are used to represent revenue policy.
- Excessive Demand: During inflation, the government raises taxes, resulting in a loss of purchasing power. This is because in order to curb excessive demand, the economy must be downgraded.
- Deficient **Demand:** If there is a shortage, tax rates

b. Changes in public expense:

Government must invest heavily in public works projects such as roads, buildings, and irrigation schemes.

- Excess Demand: During inflation, the government should limit (reduce) its costs to public works such as roads, buildings, and irrigation projects, thereby reducing people's income and consumer needs.
- Deficient Demand: In times of need, government should increase its costs for public services such as roads, buildings, and irrigation projects, thereby increasing people's income and consumer needs.

c. A shift in public borrowing:

- Excess Demand: This measure stipulates that the government should borrow money from more people, which reduces the purchasing power of the people by leaving them with less money. As a result, in times of great need, the government should take advantage of increased public lending.
- Deficient Demand: This measure means that the government should reduce lending to more people, which increases people's purchasing power. As a result, in times of urgent need, the government should take steps to reduce public debt.

2. Monetary Policy:

It is the policy of the central bank to control the amount of money available and the presence of debt in the economy.

A. Quantitative Measures:

These are monetary policy tools that contribute to the full supply of money / debt to the economy. These tools do not direct or limit credit flow in certain sectors of the economy.

a. Bank Rate:

The banking rate is the interest rate at which the central bank borrows money from commercial banks without collateral.

- Excess Demand: The Bank rate should be increased in the face of over-demand, as a result of which, the amount of money available to banks is declining, and the capacity of commercial lending is also declining. Combined demand therefore decreases with the creation of lower debt and the provision of financing in the economy.
- Deficient **Demand:** Banking rates should be reduced in the face of shortages, as a result of which, the value of banks' access to finance increases, and the capacity of commercial lending facilities also increases. Combined demand is therefore rising due to the creation of high debt and the provision of funding to the economy.

b. Cash Reserve Ratio (CRR):

A small percentage of the bank deposit amount you have to keep in a large bank. By law, commercial banks must keep a certain amount of cash deposited in a cash bank account.

- Excess Demand: CRR should be increased in cases of over-demand, as a result of which, the amount of money available to banks decreases, and the capacity of commercial lending facilities also decreases. Combined demand therefore decreases with the creation of lower debt and the provision of financing in the economy.
- Deficient **Demand:** CRR should be reduced in the face of shortages, as a result of which, the amount of money earned by banks increases, and the capacity of commercial lending facilities also increases. Combined demand is therefore rising due to the creation of high debt and the provision of funding to the economy.

c. Statutory Liquidity Ratio (SLR):

It sets out a small portion of the total need and time obligations that commercial banks have to maintain on their own.

- Excess Demand: The SLR should be increased in cases of over-demand, as a result of which, the amount of money available to banks decreases, and the capacity of commercial lending facilities also decreases. Combined demand therefore decreases with the creation of lower debt and the provision of financing in the economy.
- Deficient Demand: SLR should be reduced in the context of demand, as a result of which, the amount of money available to banks is increasing, and the capacity of commercial lending facilities also increases. Combined demand is therefore rising due to the creation of high debt and the provision of funding to the economy.

d. Open Market Operations (OMO):

It consists of a large bank that buys and sells government goods and bonds in an open market.

- Excess Demand: In cases of over-demand, the central bank has to sell government assets and bonds in the open market. This reduces the ability of commercial banks to provide loans, thus reducing the level of collective interest.
- Deficient Demand: In cases of shortage, the central bank must purchase government goods and bonds in the open market. This increases the ability of commercial banks to provide loans, thereby increasing the level of collective demand, due to higher purchasing power in the hands of the people.

B. Qualitative Measure:

a. Marginal requirement:
Commercial banks lend to businesses and merchants in order to secure the security of their assets. The bank will not provide a loan equal to the total amount of the security. It is never more important than collateral.
- Excess Demand: In extreme demand, margin requirements are raised, as they discourage borrowers because the higher margin required means the lower the amount of credit granted.
- Deficient Demand: In cases of shortages, the requirements for the margins are reduced to encourage borrowers to take out loans, as the minimum margin required for additional loans is provided.

b. Credit rating: The central bank may use this method to direct commercial banks not to lend for certain reasons or to lend more for specific purposes or sectors.

c. Moral Suasion: Moral Suasion refers to soliciting, soliciting, informal banking advice, advice, and pleading with commercial banks to adhere to the central bank's monetary policy.
- Excess Demand: In extreme cases of overcrowding, the central bank requests a reduction in debt.
- Deficient **Demand:** In cases of deficit, the central bank requests an extension of the loan.

Paradox of Thrift: It is described as a situation where people tend to save more money, and these rising savings lead to reduced consumption, which in turn leads to reduced consumption combined. Such a savings plan reduces employment rates, reduces overall economic savings, and slows economic growth. This is considered to be an important part of the Keynesian economy.

Q.1 In the AD-AS module, the level of aggregate demand can influence the level of output.
(a) If any only if aggregate supply has a positive relationship with the price level.
(b) If any only if the price level is constant
(c) If any only if aggregate supply is not invariant with the changes in the price level.
(d) If any only if aggregate supply is invariant with the changes in the price level.

Q.2 If the value of average propensity to consume is 0.8 and national income is Rs. 4000 corers, the value of saving will be_____
(a) Rs. 100 corers
(b) Rs. 200 corers
(c) Rs. 800 corers
(d) Rs. 500 corers

Q.3 Perfectly elastic AS implies that
(i) There is a fuller utilization of resources in the economy
(ii) There is unemployment of resources in the economy
(iii) There is excess capacity in the economy
(a) Both (i) and (ii)
(b) Both (ii) and (iii)
(c) (i), (ii) and (iii)
(d) None of these

Q.4 According to the theory of Keynesian economist, the value of the average propensity to consume can be never-
(a) Zero
(b) Unity
(c) More than one
(d) Less than one

Q.5 When consumption function starts from Y-axis, at indicate that:
(a) Consumption is zero when income is zero
(b) Saving is negative when income is zero
(c) Consumption is positive when income is zero
(d) Saving is positive when income is zero

Q.6 45 degree line in the context of equilibrium GDP is
(i) Line of reference
(ii) Line of identify
(iii) Line of equity between AS and AD
(a) (i) and (ii)
(b) (ii) and (iii)
(c) (i) and (iii)
(d) None of the above

Q.7 The value of multiplier is
(a) 1/MPC
(b) 1/MPS
(c) 1/MPC-1
(d) 1/1-MPC

Q.8 Constant slope of S-line indicates that
(a) S-line will be a straight line
(b) Saving function will be non-linear
(c) Saving function will be linear
(d) Both (a) and (c)

Q.9 If MPC= 0.5, the value of multiplier equals
(a) 2
(b) 1

(c) 5

(d) None

Q.10 When does a situation of deficient demand arise in an economy?

(a) AD > AS

(b) S > I

(c) AD < AS

(d) S < I

Q.11 With which component of money policy, central bank tries to attain economic stability in the country?

(a) Supply of money

(b) Interest rate

(c) Availability of money

(d) all of these

Q.12 Match the statements given under A with the correct options given under B.

Column – A	Column – B
i) Excess Demand	A – Leads to fall in the general price level
ii) Deficient Demand	B – Leads to rise in the general price level

Options

a) i – A, ii – B

b) i – B, ii – A

Q.13 Match the statements given under A with the correct options given under B.

Column – A	Column – B
i) Deflationary Gap	A – When AD>AS corresponding to full employment level of output in economy.
ii) Legal Reserve Requirements	B – Fiscal measure during Excess Demand
iii) Excess Demand	C – Aim to influence the total volume of credit in circulation.
iv) Decrease in Government Spending	D – Cash Reserve Ratio and Statutory Liquidity Ratio
v) Quantitative Instruments	E – Gap by which actual AD fails short of AD required to establish full employment equilibrium

Options

a) i – A, ii – B, iii – C, iv – D, v – E

b) i – B, ii – C, iii – B, iv – E, v – D

c) i – E, ii – D, iii – A, iv – B, v – C

d) i – C, ii – E, iii – D, iv – A, v – B

Q.14 From the set of statements given in Column I and Column II, choose the correct pair of statements:

Column – A	Column – B
A – Quantitative Instrument	i) Margin Requirements
B – Decrease in Government Spending	ii) Part of Fiscal Policy
C – Qualitative Instrument	iii) Legal Reserve Requirements
D – Increase in Taxes	iv) part of Monetary Policy

Options

a) A – i

b) B – ii

c) C – iii

d) D – iv

Q.15 Propensity to save is the

(a) Additional income that is not to be saved

(b) Ratio of saving to income

(c) Level of saving at which saving and consumption are equal

(d) Tendency of the consumer towards higher savings

Q.16 Suppose in a hypothetical economy, the income raises from Rs.500crores to Rs.600crores. As a result, the consumption expenditure rises from Rs.400crores to Rs.500crores. MPC in such a case would be_____

(a) 0.8
(b) 0.4
(c) 1.0
(d) 0.6

Q.17 The central bank can increase availability of credit by

(a) Raising repo rate
(b) Raising reverse repo rate
(c) Buying government securities
(d) Selling government securities

Q.18 The money multiplier in an economy increase with

(a) Increase in CRR
(b) Increase in SLR
(c) Increase in banking habits of the population
(d) Increase in the population of the country

Q.19 _____is equal to the difference between 'AD beyond full employment' and 'AD at full employment'.

(a) Recession
(b) Inflationary gap
(c) Deflationary gap
(d) None

Q.20 Keynes theory is associated with:

(a) Effective demand
(b) Propensity to consume
(c) Propensity to save
(d) All of these

Q.21 From the set of statements given in Column I and Column II, choose the correct pair of statements.

Column – A	Column – B
A) When AD is more than AS	i) Planned Inventory would rise above the desired level
B) Investment Multiplier	ii) $\Delta I/\Delta Y$
C) When Saving is less than Investment	iii) Planned inventory would fail below the desired level
D) Multiplier	iv) Inversely related to MPC

Options
i) A – i
b) B – ii
c) C – iii
d) D – iv

Q.22 Match the statements given under A with the correct options given under B.

Column – A	Column – B
i) APC	A – $\Delta S/\Delta Y$
ii) MPC	B – S/Y
iii) MPS	C – $\Delta C/\Delta Y$
iv) APS	D – C/Y

Options
a) i – A, ii – B, iii – C, iv – D
b) i – B, ii – C, iii – B, iv – D
c) i – C, ii – A, iii – B, iv – D
d) i – D, ii – C, iii – A, iv – B

Q.23 When household consumption expenditure= Rs.9000, private investment expenditure= Rs.7000, government expenditure= Rs.12000, exports= Rs.1000 and imports= Rs.3000, the level of AD in an open economy will be
(a) Rs.16000
(b) Rs.26000
(c) Rs.28000
(d) Rs.29000

Q.24 Liquidity preference
(a) Is about holding money related to other assets
(b) Is the difference between bond prices and interest rates?
(c) Affects the supply of money
(d) Is unrelated to any of the above

Q.25 According to the saving-investment viewpoint, income employment equilibrium will be determined at a point where:
(a) S > I
(b) I > S
(c) S = I
(d) None of these

Q.26 Inflationary gap show the measurement of-
(a) Deficit demand
(b) Surplus demand
(c) Full employment
(Vd) None of the above

Q.27 Which of the following not a tool of monetary policy?
(a) Tax rate
(b) Interest rate
(c) CRR
(d) Open market operation

Q.28 Which of the following is correct?
(a) APC = C/Y
(b) MPC = 1-MPS
(c) APC + APS = 1
(d) All of these

Q.29 Match the statements given under A with the correct options given under B.

Column – A	Column – B
i) Consumption Function	A – Consumption + Investment
ii) Aggregate Demand	B – Consumption + Savings
	C – Propensity to Consume

Options
a) i – A, ii – B
b) i – C, ii – A
c) i – B, ii – C

Q.30 From the set of statements given in Column I and Column II, Choose the correct pair of statements:

Column – I	Column – II
A) APC	i) Can never be equal to 1
B) APS	ii) Can be less than 0
C) MPC	iii) Can be more than 1
D) MPS	iv) Varies between -1 and +1

Options
a) A – i
b) B – ii

c) C – iii

d) D – iv

Q.31 The maximum value of multiplier is when the value of MPC is _____.

(a) Infinity, Zero

(b) Infinity, One

(c) One, Infinity

(d) None of these

Q.32 APC + APS =?

(a) 0

(b) 1

(c) 2

(d) none

Q.33 Which of the following is a Real Investment?

(a) Purchasing of a Share

(b) Purchasing of Old Factory

(c) Construction of Buildings

(d) Opening Deposit Account in the Bank

Q.34 Who is the author of the book 'General Theory of Employment, Interest, and Money'?

(a) A.C. Pigou

(b) Malthus

(c) J.M. Keynes

(d) Marshall

Q.35 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

Q.36 If MPC =1, the value of multiplier is _____

(a) 0

(b) 1

(c) Between 0 and 1

(d) Infinity

Q.37 What is the cause of Keynesian perfectly elastic Aggregate Supply curve?

(a) Wage price rigidity

(b) Constant Marginal Product of Labor

(c) Both of these

(d) None of these

Q.38 What is the shape of the Keynesian Aggregate Supply before the level of full employment is attained?

(a) Perfectly inelastic

(b) Perfectly elastic

(c) unitary elastic

(d) More elastic

Q.39 According to classical economists, real wage rate is _____ to the Marginal Productivity of labor.

(a) Equal

(b) More

(c) Less

(d) None of these

Q.40 Multiplier can be expressed as:

(a) $K = \Delta S/\Delta I$

(b) $K = \Delta Y / \Delta I$
(c) $K = I - S$
(d) None of these

SOLUTION

1. (a) In the model, aggregate demand = aggregate supply. The level of aggregate demand can influence the level of output only if aggregate supply has a positive relationship with the price level.

2. (c) APS = 1 – APC
   = 1 – 0.8 = 0.2
   Also, APS = Savings / National Income
   = 0.2 = Savings / 4000
   = Rs.800crores

3. (b)

4. (a) The value of average propensity to consume (APC) can never be zero as consumption can never be zero. If the average propensity to consume is zero that means the consumption would also be zero. Average propensity defines that consumption with every 1 unit of income. But there is always an autonomous consumption present irrespective of income, so the APC should be a positive value.

5. (b)

6. (c)

7. (b) Since multiplier indicates the effects of change in investment (ΔI) on change in income (ΔY), therefore, K = $\Delta Y/\Delta I$ = $\Delta Y/\Delta Y/\Delta C$. By dividing by ΔY:
   K = 1/(1-MPC)
   Clearly value of Y depends on the values of MPC and MPS.
   Symbolically:
   K = 1/(1-MPC) = 1/MPS

8. (d) Slope of saving curve is indicated by MPS (i.e. $\Delta S / \Delta Y$ $\Delta S/\Delta Y$). Constant MPS means that saving curve is a straight line and hence, savings function will be linear.

9. (a) K = 1 / MPC
   = 1 / 0.5
   = 2

10. (c) Deficient demand refers to the situation when aggregate demand (AD) is less than the aggregate supply (AS) corresponding to full employment level of output in the economy. The situation of deficient demand arises when planned aggregate expenditure falls short of aggregate supply at the full employment level.

11. (d)

12. (b)

13. (c)

14. (d)

15. (b)

16. (c) MPC = $\Delta C/\Delta Y$
    500 – 400 / 600 – 500
    = 100 / 100 = 1

17. (c) If RBI wishes to increase the supply of credit it undertakes an open market purchase of government securities. This increases the monetary base of the banks and they have more funds to lend as credit.
    Raising repo rates means banks will borrow at higher rates from RBI, and in turn lend to the public at higher rates. This leads to decrease in borrowing.
    When reverse repo rate increases, banks would like to park their funds with RBI at higher rates and there will be lesser amount available to give as credit.

18. (c)

19. (b)

20. (d)

21. (c)

22. (d)

23. (b) AD (Y) = C + I + G + NX
= 9000 + 7000 + 12000 + 1000 − 3000
= Rs.26000
24. (a) liquidity preference, in economics, the premium that wealth holders demand for exchanging ready money or bank deposits for safe, non-liquid assets such as government bonds.
25. (c)
26. (a)
27. (a)
28. (d)
29. (b)
30. (b)
31. (a) Investment multiplier refers to the number of time by which the increase in output or income exceeds the increase in investment. It is measured as the ratio between change in income and change in investment and it is denoted as 'k'.
Multiplier (k) => Change in income / change in investment = 1/ {1-MPC(c)} where c is the marginal propensity to consume.
Therefore, the value of multiplier will be maximum when the value of MPC is either infinity or zero.
32. (b) The sum of the Average Propensity to Consume (APC) and Average Propensity to save (APS) is always equal to unity, i.e., APC + APS = 1. It is so because the money income can either be spent on consumption or it can be saved. In case, we consider the ratio of consumption to money income, we call it average propensity to consume, (APC), and the ratio of saving to income represents average propensity to save (APS). It is for his reason that the sum of APC and APS equals unity.
Symbolically,
APC = C/Y and APS = S/Y
We know that Y = C + S
APC = APS = C/Y + S/Y = C+S/Y = Y/Y = 1
Hence   APC + APS = 1
33. (a) A real investment is purchase of share. Real investment is result in an increment of capital equipment. Real investment refers to the total amount of money invested in terms of tangible or productive assets such as plants, tools, equipment's and machinery. It does not include investment in terms of securities or other financial instruments.
34. (b)
35. (b) If the marginal propensity to consume is greater than marginal propensity to save, the value of the multiplier will be greater than 2.
When MPC >MPS, then the value of multiplier will be greater than 2 because the value of multiplier is directly related to the value of marginal propensity to consume. They both are directly related. In other words when MPC is more, k the multiplier is more and vice versa.
36. (d) Investment multiplier refers to the number of times by which the increase in output or income exceeds the increase in investment. It is measured as the ratio between the change in income and change in investment and it is denoted as 'k'.
Multiplier (k) = Change in income / change in investment = 1/ {1-MPC(c)} where c is the marginal propensity to consume.
If MPC = 1, then
Multiplier (k) = 1/(1-1)= 1/0 = Infinity.
Therefore, the value of the multiplier is infinity and the correct answer is D.
37. (b)
38. (b)
39. (a)
40. (a) Investment multiplier refers to the number of time by which the increase in output or income exceeds the increase in investment. It is measured as the ratio between change in income and change in investment and it is denoted as 'k'. Algebraically,
k = $\Delta Y / \Delta I$ where Y is the income and I is the investment expenditure in the economy.