MOCK TEST PAPER –1

INTERMEDIATE: GROUP – II

PAPER – 8: FINANCIAL MANAGEMENT & ECONOMICS FOR FINANCE

8A : FINANCIAL MANAGEMENT

Suggested Answers/ Hints

The solutions contained herein may be based on certain assumptions. Therefore, Question may be solved based on any other logical alternative assumption/ approach/ presentation.

1. (a)

Particulars	(₹' in lakhs)
Net Profit	75
Less: Preference dividend	30
Earnings for equity shareholders	45
Earnings per share	45/3 = ₹ 15

Let, the dividend per share be D to get share price of ₹ 105

$$P = \frac{D + \frac{r}{K_e}(E-D)}{K_e}$$

$$105 = \frac{D + \frac{0.20}{0.16}(15-D)}{0.16}$$

$$16.8 = \frac{0.16D + 3 - 0.20D}{0.16}$$

$$0.04D = 3 - 2.688$$

$$D = 7.80$$

$$\text{D/P ratio} = \frac{DPS}{EPS} \times 100 = \frac{7.80}{15} \times 100 = 52\%$$

So, the required dividend pay-out ratio will be = 52%

(b) **Balance Sheet**

Liabilities	(₹)	Assets	(₹)
Current debt	1,44,000	Cash (balancing figure)	3,60,000
Long term debt	2,16,000	Inventory	2,40,000
Total Debt	3,60,000	Total Current Assets	6,00,000
Owner's Equity	6,00,000	Fixed Assets	3,60,000
Total liabilities	9,60,000	Total Assets	9,60,000

Working Notes:

1. Total debt = 0.60 x Owner's Equity = 0.60 x ₹ 6,00,000 = ₹ 3,60,000

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Further, Current debt to Total debt = 0.40.

So, Current debt = 0.40 × ₹ 3,60,000 = ₹ 1,44,000

Long term debt = ₹ 3,60,000 - ₹ 1,44,000 = ₹ 2,16,000

2. Fixed assets = 0.60 × Owner's Equity = 0.60 × ₹ 6,00,000 = ₹ 3,60,000

3. Total Assets = Total Liabilities = ₹ 9,60,000

   Total assets to turnover = 2 Times; Inventory turnover = 8 Times

   Hence, Inventory /Total assets = 2/8=1/4,

   Therefore, Inventory = ₹ 9,60,000/4 = ₹ 2,40,000

(c) Income Statement with required calculations

Particulars	Previous Year	Current Year
Sales (in units)	18,00,000	15,00,000
No. of shares	15,00,000	15,00,000
	(₹' 000)	(₹' 000)
Sales Value	2,16,000	1,80,000
Variable Cost	(1,44,000)	(1,20,000)
Contribution	72,000	60,000
Fixed expenses	(30,000)	(30,000)
EBIT	42,000	30,000
Debenture Interest	(15,000)	(15,000)
EBT	27,000	15,000
Tax @ 30%	(8,100)	(4,500)
Profit after tax (PAT)	18,900	10,500
(i) Financial Leverage $= \dfrac{EBIT}{EBT}$	$=\dfrac{₹\,42,000}{₹\,27,000}$ = 1.56	$=\dfrac{₹\,30,000}{₹\,15,000}$ = 2
(ii) Operating leverage $= \dfrac{Contribution}{EBIT}$	$=\dfrac{₹\,72,000}{₹\,42,000}$ = 1.71	$=\dfrac{₹\,60,000}{₹\,30,000}$ = 2
(iii) Earnings per share (EPS) $= \dfrac{PAT}{No.\ of\ shares}$	$=\dfrac{₹\,18,900}{₹\,1,500}$ = ₹ 12.6	$=\dfrac{₹\,10,500}{₹\,1,500}$ = ₹ 7
Decrease in EPS	= ₹ 12.6 – ₹ 7 = ₹ 5.6 % decrease in EPS $= \dfrac{5.6}{12.6} \times 100$ = 44.44%	

(d) (i) Cost of Equity Capital (Ke):

$$K_e = \frac{\text{Expected dividend per share (D1)}}{\text{Market price per share (P0)}} + \text{Growth rate(g)}$$

$$= \frac{₹\,10 \times 1.06}{₹\,125} + 0.06 = 0.1448 \text{ or } 14.48\%$$

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(ii) Cost of Debenture (K_d):

Using Present Value method (YTM)

Identification of relevant cash flows

Year	Cash flows
0	Current market price (P_0) = ₹ 98
1 to 12	Interest net of tax [I(1-t)] = 10% of ₹ 100 (1 – 0.5) = ₹ 5
12	Redemption value (RV) = ₹ 100 (1.10) = ₹ 110

Calculation of Net Present Values (NPV) at two discount rates

Year	Cash flows (₹)	Discount factor @ 5% (L)	Present Value (₹)	Discount factor @ 10% (H)	Present Value (₹)
0	(98)	1.000	(98.00)	1.000	(98.00)
1 to 12	5	8.863	44.32	6.814	34.07
12	110	0.557	61.27	0.319	35.09
NPV			+7.59		-28.84

Calculation of IRR

$$IRR = L + \frac{NPVL}{NPVL - NPVH}\,(H\text{-}L)$$

$$= 5\% + \frac{7.59}{7.59-(-28.84)}\,(10\%\text{-}5\%) = 6.04\%$$

Therefore, K_d = 6.04%

2. Value of PRI Ltd. $= \dfrac{NOI}{K_o} = \dfrac{₹\,9{,}00{,}000}{18\%} = ₹\,50{,}00{,}000$

(a) (i) Return on Shares of Mr. Rhi on PRI Ltd.

Particulars	Amount (₹)
Value of the company	50,00,000
Market value of debt (60% x ₹ 50,00,000)	30,00,000
Market value of shares (40% x ₹ 50,00,000)	**20,00,000**
Particulars	**Amount (₹)**
Net operating income	9,00,000
Interest on debt (8% × ₹ 30,00,000)	2,40,000
Earnings available to shareholders	**6,60,000**
Return on 6% shares (6% × ₹ 6,60,000)	**39,600**

(ii) Implied required rate of return on equity of PRI Ltd. $= \dfrac{₹\,6{,}60{,}000}{₹\,20{,}00{,}000} = $ **33%**

(b) (i) Calculation of Implied rate of return of SHA Ltd.

Particulars	Amount (₹)
Total value of company	50,00,000

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Market value of debt (20% × ₹ 50,00,000)	10,00,000
Market value of equity (80% × ₹ 50,00,000)	**40,00,000**
Particulars	**Amount (₹)**
Net operating income	9,00,000
Interest on debt (8% × ₹ 10,00,000)	80,000
Earnings available to shareholders	**8,20,000**

Implied required rate of return on equity $= \dfrac{₹\ 8,20,000}{₹\ 40,00,000} =$ **20.5%**

(ii) Implied required rate of return on equity of SHA Ltd. is lower than that of PRI Ltd. because SHA Ltd. uses less debt in its capital structure. As the equity capitalisation is a linear function of the debt-to-equity ratio when we use the net operating income approach, the decline in required equity return offsets exactly the disadvantage of not employing so much in the way of "cheaper" debt funds.

3. **Working Notes:**

1. **Raw Material Storage Period (R)**

$$= \frac{\text{Average Stock of Raw Material}}{\text{Annual Consumption of Raw Material}} \times 365$$

$$= \frac{\frac{₹\ 585 + ₹\ 845}{2}}{₹\ 4,940} \times 365 = 53 \text{ days}$$

Annual Consumption of Raw Material = Opening Stock + Purchases - Closing Stock

= ₹ 585 + ₹ 5,200 – ₹ 845 = ₹ 4,940 lakh

2. **Work – in - Progress (WIP) Conversion Period (W)**

$$= \frac{\text{Average Stock of WIP}}{\text{Annual Cost of Production}} \times 365$$

$$= \frac{\frac{₹\ 455 + ₹\ 663}{2}}{₹\ 5,850} \times 365 = 35 \text{ days}$$

3. **Finished Stock Storage Period (F)**

$$= \frac{\text{Average Stock of Finished Goods}}{\text{Cost of Goods Sold}} \times 365$$

$$= \frac{\frac{₹\ 780 + ₹\ 910}{2}}{₹\ 6,825} \times 365 = 45 \text{ days.}$$

4. **Receivables (Debtors) Collection Period (D)**

$$= \frac{\text{Average Receivables}}{\text{Annual Credit Sales}} \times 365$$

$$= \frac{\frac{₹\ 1,456 + ₹\ 1,755}{2}}{₹\ 7,605} \times 365 = 77 \text{ days}$$

5. **Payables (Creditors) Payment Period (C)**

$$= \frac{\text{Average Payables for materials}}{\text{Annual Credit purchases}} \times 365$$

$$= \frac{\frac{₹ 884 + ₹ 923}{2}}{₹ 5,200} \times 365 = 64 \text{ days}$$

(i) Net Operating Cycle Period

= R + W + F + D - C

= 53 + 35 + 45 + 77 – 64 = 146 days

(ii) Number of Operating Cycles in the Year

$$= \frac{365}{\text{Operating Cycle Period}} = \frac{365}{146} = 2.5 \text{ times}$$

(iii) Amount of Working Capital Required

$$= \frac{\text{Annual Operating Cost}}{\text{Number of Operating Cycles}} = \frac{₹ 4,225}{2.5} = ₹ 1,690 \text{ lakh}$$

Note: Number of days may vary due to fraction.

4. **Evaluation of Alternatives:**

Savings in disposing off the waste

Particulars	(₹)
Outflow (2,00,000 × ₹ 0.50)	1,00,000
Less: tax savings @ 50%	50,000
Net Outflow per year	**50,000**

Calculation of Annual Cash inflows in Processing of waste Material

Particulars	Amount (₹)	Amount (₹)
Sale value of waste (₹ 5 × 2,00,000 kilograms)		10,00,000
Less: Variable processing cost (₹ 2.50 × 2,00,000 kilograms)	5,00,000	
Less: Fixed processing cost	60,000	
Less: Advertisement cost	40,000	
Less: Depreciation	1,20,000	(7,20,000)
Earnings before tax (EBT)		**2,80,000**
Less: Tax @ 50%		(1,40,000)
Earnings after tax (EAT)		1,40,000
Add: Depreciation		1,20,000
Annual Cash inflows		**2,60,000**

Total Annual Benefits = Annual Cash inflows + Net savings (adjusting tax) in

disposal cost

= ₹ 2,60,000 + ₹ 50,000 = ₹ 3,10,000

Calculation of Net Present Value

Year	Particulars	Amount (₹)
0	Investment in new equipment	(12,00,000)

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1 to 10	Total Annual benefits × PVAF$_{(10\ years,\ 15\%)}$	
	₹ 3,10,000 × 5.019	15,55,890
	Net Present Value	**3,55,890**

Recommendation: Processing of waste is a better option as it gives a positive Net Present Value.

Note- Research cost of ₹ 1,20,000 is not relevant for decision making as it is sunk cost.

5 (a) (i) (I) Calculation of Expected Net Cash Flow (ENCF) of Project A and Project B

Project A			Project B		
Net Cash Flow (₹)	Probability	Expected Net Cash Flow (₹)	Net Cash Flow (₹)	Probability	Expected Net Cash Flow (₹)
1,72,000	0.30	51,600	3,38,000	0.20	67,600
1,82,000	0.30	54,600	3,18,000	0.30	95,400
1,92,000	0.40	76,800	2,98,000	0.50	1,49,000
ENCF		**1,83,000**			**3,12,000**

(II) Variance of Projects

Project A

Variance (σ^2) = $(1,72,000 - 1,83,000)^2 \times (0.3) + (1,82,000 - 1,83,000)^2 \times (0.3) + (1,92,000 - 1,83,000)^2 \times (0.4)$

= 3,63,00,000 + 3,00,000 + 3,24,00,000   **= 6,90,00,000**

Project B

Variance(σ^2) = $(3,38,000 - 3,12,000)^2 \times (0.2) + (3,18,000 - 3,12,000)^2 \times (0.3) + (2,98,000 - 3,12,000)^2 \times (0.5)$

= 13,52,00,000 + 1,08,00,000 + 9,80,00,000   **= 24,40,00,000**

(III) Standard Deviation of Projects

Project A

Standard Deviation (σ) = $\sqrt{\text{Variance}(\sigma^2)}$ = $\sqrt{6,90,00,000}$ **= 8,306.624**

Project B

Standard Deviation (σ) = $\sqrt{\text{Variance}(\sigma^2)}$= $\sqrt{24,40,00,000}$ **= 15,620.499**

(IV) Coefficient of Variation of Projects

Projects	Coefficient of variation $\left(\dfrac{\text{Standard Deviation}}{\text{Expected Net Cash Flow}}\right)$	Risk	Expected Net Cash Flow
A	$\dfrac{8,306.624}{1,83,000}$= **0.045 or 4.5%**	Less	Less
B	$\dfrac{15,620.499}{3,12,000}$= **0.050 or 5.0%**	More	More

(ii) In project A risk per rupee of cash flow is 0.045 (approx.) while in project B it is 0.050 (approx.). Therefore, Project A is better than Project B.

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(b) **Sensitivity Analysis Vs. Scenario Analysis:** Sensitivity analysis and Scenario analysis both help to understand the impact of the change in input variable on the outcome of the project. However, there are certain basic differences between the two.

Sensitivity analysis calculates the impact of the change of a **single** input variable on the outcome of the project viz., NPV or IRR. The sensitivity analysis thus enables to identify that single critical variable which can impact the outcome in a huge way and the range of outcomes of the project given the change in the input variable.

Scenario analysis, on the other hand, is based on a **scenario**. The scenario may be recession or a boom wherein depending on the scenario, all input variables change. Scenario Analysis calculates the outcome of the project considering this scenario where the variables have changed simultaneously. Similarly, the outcome of the project would also be considered for the normal and recessionary situation. The variability in the outcome under the three different scenarios would help the management to assess the risk a project carries. Higher deviation in the outcome can be assessed as higher risk and lower to medium deviation can be assessed accordingly.

Scenario analysis is far more **complex** than sensitivity analysis because in scenario analysis all inputs are changed simultaneously, considering the situation in hand while in sensitivity analysis, only one input is changed and others are kept constant.

6 (a) **Financial Distress and Insolvency:** There are various factors like price of the product/ service, demand, price of inputs e.g., raw material, labour etc., which is to be managed by an organisation on a continuous basis. Proportion of debt also need to be managed by an organisation very delicately. Higher debt requires higher interest and if the cash inflow is not sufficient then it will put lot of pressure to the organisation. Both short term and long-term creditors will put stress to the firm. If all the above factors are not well managed by the firm, it can create situation known as distress, so financial distress is a position where Cash inflows of a firm are inadequate to meet all its current obligations.

Now if distress continues for a long period of time, firm may have to sell its asset, even many times at a lower price. Further when revenue is inadequate to revive the situation, firm will not be able to meet its obligations and become insolvent. So, insolvency basically means inability of a firm to repay various debts and is a result of continuous financial distress.

(b) **Types of Packing Credit-**

(i) **Clean packing credit:** This is an advance made available to an exporter only on production of a firm export order or a letter of credit without exercising any charge or control over raw material or finished goods. It is a clean type of export advance. Each proposal is weighed according to particular requirements of the trade and credit worthiness of the exporter. A suitable margin has to be maintained. Also, Export Credit Guarantee Corporation (ECGC) cover should be obtained by the bank.

(ii) **Packing credit against hypothecation of goods:** Export finance is made available on certain terms and conditions where the exporter has pledge able interest and the goods are hypothecated to the bank as security with stipulated margin. At the time of utilising the advance, the exporter is required to submit, along with the firm export order or letter of credit relative stock statements and thereafter continue submitting them every fortnight and/or whenever there is any movement in stocks.

(iii) **Packing credit against pledge of goods:** Export finance is made available on certain terms and conditions where the exportable finished goods are pledged to the banks with approved

clearing agents who will ship the same from time to time as required by the exporter. The possession of the goods so pledged lies with the bank and is kept under its lock and key.

(iv) **E.C.G.C. guarantee:** Any loan given to an exporter for the manufacture, processing, purchasing, or packing of goods meant for export against a firm order qualifies for the packing credit guarantee issued by Export Credit Guarantee Corporation.

(v) **Forward exchange contract:** Another requirement of packing credit facility is that if the export bill is to be drawn in a foreign currency, the exporter should enter into a forward exchange contact with the bank, thereby avoiding risk involved in a possible change in the rate of exchange.

(c) (i) **Callable bonds:** A callable bond has a call option which gives the issuer the right to redeem the bond before maturity at a predetermined price known as the call price (Generally at a premium).

(ii) **Puttable bonds:** Puttable bonds give the investor a put option (i.e. the right to sell the bond) back to the company before maturity.

Or

Features of Samurai Bond:

- Samurai bonds are denominated in Japanese Yen JPY

- Issued in Tokyo

- Issuer Non- Japanese Company

- Regulations: Japanese

- Purpose: Access of capital available in Japanese market

- Issue proceeds can be used to fund Japanese operation

- Issue proceeds can be used to fund a company's local opportunities.

- It can also be used to hedge foreign exchange risk

Time Allowed – 1:15 Hours   **Maximum Marks - 40**

ANSWERS

1. **(a)** National income is a 'flow' measure of output per time period for example, per year and includes only those goods and services produced in the current period i.e. produced during the time interval under consideration. The value of market transactions such as exchange of goods which already exist or are previously produced, do not enter into the calculation of national income. Therefore, the value of assets such as stocks and bonds which are exchanged during the pertinent period are not included in national income as these do not directly involve current production of goods and services. However, the value of services that accompany the sale and purchase e.g., fees paid to real estate agents and lawyers represent current production and, therefore, is included in national income.

    (b) The two concepts GDP and GNP differ in their treatment of international transactions. The term 'national' refers to normal residents of a country who may be within or outside the domestic territory of a country and is a broader concept compared to the term 'domestic'. For example, GNP includes earnings of Indian corporations overseas and Indian residents working overseas; but GDP does not include these. In other words, GDP excludes net factor income from abroad. Conversely, GDP includes earnings from current production in India that accrue to foreign residents or foreign-owned firms; GNP excludes those items. For instance, profits earned in India by X Company, a foreign-owned firm, would be included in GDP but not in GNP. Similarly, profits earned by Company Y, an Indian company in UK would be excluded from GDP but included in GNP.

    (c) Sometimes countries engage in 'unfair' foreign-trade practices which are trade distorting in nature and adverse to the interests of the domestic firms. The affected importing countries, upon confirmation of the distortion, respond quickly by measures in the form of tariff responses to offset the distortion. These policies are often referred to as "trigger-price" mechanisms.

    (d) GDP_{MP} = Value of output in primary Sector – Intermediate Consumption in Primary Sector + Value of output in Secondary Sector – Intermediate Consumption in Secondary Sector + Value of output in Tertiary Sector – Intermediate Consumption

    = (700-350) + (900 – 250) + (1,000 – 100)

    = 350+650+900 = 1900

    $GNP_{MP} = GDP_{MP} + NFIA$

    = 1900+(-40)

    = 1860

2. **(a)** It is a process of multiple increases in equilibrium income due to increase in investment and how much increase occurs depends upon the marginal propensity to consume. In our two-sector model, a change in aggregate demand may be caused by change in consumption expenditure or in business investment or in both. Since consumption expenditure is a stable function of income, changes in income are primarily from changes in the autonomous components of aggregate demand, especially from changes in the unstable investment component.

    (b) According to the Keynesian theory of income and employment, national income depends upon the aggregate effective demand. If the aggregate effective demand falls short of that output at which all those who are both able and willing to work are employed, it will result in unemployment in the economy. Consequently, there will be a gap between the economy's actual and optimum potential output. On the contrary, if the aggregate effective demand exceeds the economy's full employment output, it will result in inflation. Nominal output will increase, but it simply reflects higher prices, rather than additional real output. It is not necessary that the equilibrium aggregate

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output will also be the full employment aggregate output. It is undesirable and a cause of great concern for the society and government if large number of people remains unemployed. In the absence of government policies to stabilize the economy, incomes will be unstable because of the instability of investment. Full employment could be maintained in a capitalist economy only if governments are willing to incur countercyclical budgetary deficits to offset the inbuilt tendency towards private over-saving. By making appropriate changes in government spending (G) and taxes, the government can counteract the effects of shifts in investment. Appropriate changes in fiscal policy by adjusting government expenditure and taxes could keep the autonomous expenditure constant even in the face of undesirable changes in the investment.

(c) $C = 20 + 0.60\ Yd$

$I = 80$

$G = 30$

$T = 30$

$Y = C + I + G$

$= a + bYd + I + G$

$= 20 + 0.60Y - 18 + 80 + 30$

$Y = 112 + 0.60y$

$Y - 0.60\ y = 112$

$Y = \dfrac{112}{0.40} = 280$

(d) Money Supply = 2000 bn.

Price = 100

Value of Transaction: 60

$MV = PT$

$2000 \times V = 100 \times 60$

$V = \dfrac{100 \times 60}{2000} = 3$

3. (a) According to Musgrave, the state is the instrument by which the needs and concerns of the citizens are fulfilled and therefore, public finance is connected with economic mechanisms that should ideally lead to the effective and optimal allocation of limited resources. This logic, in effect, makes it necessary for the government to intervene in the market to bring about improvement in social welfare. In the absence of appropriate government intervention, market failures may occur and the resources are likely to be misallocated with too much production of certain goods or too little production of certain other goods. The allocation responsibility of the governments involves suitable corrective action when private markets fail to provide the right and desirable combination of goods and services. Briefly put, market failures provide the rationale for government's allocative function.

(b) There is often a conflict between the different goals and functions of budgetary policy. Effective policy design to meet the diverse goals of government is very difficult to conceive and to implement. The challenge before any government is how to design its budgetary policy so that the pursuit of one goal does not jeopardize the other. The distribution function aims at redistribution of income so as to ensure equity and fairness to promote the wellbeing of all sections of people and is achieved through taxation, public expenditure, regulation and preferential treatment of target populations.

(**c**) The rationale for the stabilization function of the government is derived from the Keynesian proposition that a market economy does not automatically generate full employment and price stability and therefore the governments should pursue deliberate stabilization policies. The market system has inherent tendencies to create business cycles. The market mechanism is limited in its capacity to prevent or to resolve the disruptions caused by the fluctuations in economic activity.

(**d**) The Characteristic of Private Good is as :

- Private goods refer to those goods that yield utility to people. Since they are scarce anyone who wants to consume them must purchase them.

- Owners of private goods can exercise private property rights and can prevent others from using the good or consuming their benefits.

- Private goods do not have the free-rider problem. This means that private goods will be available to only those persons who are willing to pay for them.

- All private goods and services can be rejected by the consumers if their needs, preferences or budgets change.

- Additional resource costs are involved for producing and supplying additional quantities of private goods.

4. (**a**) The concept of pure public good is often criticized by many who point out that such goods are not in fact observable in the real world. They argue that goods which perfectly satisfy nonrivalness and non-excludability are not easy to come across. For example, if the government provides law and order or medical care, the use of law courts or medical care by some individuals subtracts the consumption of others if they need to wait. As another example, we may take defence. If armies are mostly deployed in the northern borders, it may not result in the same amount of protection to people in the south.

An example of an impure public good would-be cable television. It is non- rivalrous because the use of cable television by other individuals will in no way reduce your enjoyment of it. The good is excludable since the cable TV service providers can refuse connection if you do not pay for set top box and recharge it regularly.

(**b**) The limitation of Fiscal Policy is as:

- One of the biggest problems with using discretionary fiscal policy to counteract fluctuations is the different types of lags involved in fiscal-policy action.

- Fiscal policy changes may at times be badly timed due to the various lags so that it is highly possible that an expansionary policy is initiated when the economy is already on a path of recovery and vice versa.

- There are difficulties in instantaneously changing governments' spending and taxation policies.

- It is practically difficult to reduce government spending on various items such as defence and social security as well as on huge capital projects which are already midway.

- Due to uncertainties, there are difficulties of forecasting when a period of inflation or deflation may set in and also promptly determining the accurate policy to be undertaken.

(**c**) The government budget is said to be in balance when $\Delta G = \Delta T$. The balanced budget multiplier is always equal to 1.

The balanced budget multiplier is obtained by adding up the government spending multiplier (fiscal multiplier) and the tax multiplier.

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$$\text{Balanced Budget multiplier} = \frac{\Delta Y}{\Delta G} + \frac{\Delta Y}{\Delta T}$$

$$= \frac{1}{1-b} + \frac{-b}{1-b} = \frac{1-b}{1-b} = 1$$

(d) At a very high interest rate, say r*, the opportunity cost of holding money (in terms of foregone interest) is high and therefore, people will hold no money in speculative balances. When interest rates fall to very low levels, the expectation is that since the interest rate is very low it cannot go further lower and that in all possibility it will move upwards. When interest rates rise, the bond prices will fall (interest rates and bond prices are inversely related). To hold bonds at this low interest rate is to take the almost certain risk of a capital loss (as the interest rate rises and bond prices fall). Therefore, the desire to hold bonds is very low and approaches zero, and the demand to hold money in liquid form as alternative to bond holding approaches infinity. In other words, investors would maintain cash savings rather than hold bonds. The speculative demand becomes perfectly elastic with respect to interest rate and the speculative money demand curve becomes parallel to the X axis. This situation is called a 'Liquidity trap'.

5. (a) The empirical analysis of money supply is important for two reasons:

   1. It facilitates analysis of monetary developments in order to provide a deeper understanding of the causes of money growth.

   2. It is essential from a monetary policy perspective as it provides a framework to evaluate whether the stock of money in the economy is consistent with the standards for price stability and to understand the nature of deviations from this standard. The central banks all over the world adopt monetary policy to stabilize price level and GDP growth by directly controlling the supply of money. This is achieved mainly by managing the quantity of monetary base. The success of monetary policy depends to a large extent on the controllability of the monetary base and the money supply.

   (b) For implementing monetary policy, a central bank can act directly, using its regulatory powers, or indirectly, using its influence on money market conditions as the issuer of reserve money.

   The indirect instruments mainly consist of:

   (a) Repos

   (b) Open market operations

   (c) Standing facilities, and

   (d) Market-based discount window.

   (c) This instrument for monetary management was introduced in 2004 following a MoU between the Reserve Bank of India and the Government of India with the primary aim of aiding the sterilization operations of the RBI. Sterilization is the process by which the monetary authority sterilizes the effects of significant foreign capital inflows on domestic liquidity by off-loading parts of the stock of government securities held by it. Surplus liquidity of a more enduring nature arising from large capital inflows is absorbed through sale of short-dated government securities and treasury bills. Under this scheme, the Government of India borrows from the RBI (such borrowing being additional to its normal borrowing requirements) and issues treasury-bills/dated securities for absorbing excess liquidity from the market arising from large capital inflows.

   (d) International trade is often not equally beneficial to all nations. Potential unequal market access and disregard for the principles of fair-trading system may even amplify the differences between trading countries, especially if they differ in their wealth. Economic exploitation is a likely outcome when underprivileged countries become vulnerable to the growing political power of corporations operating globally.

OR

Sometimes countries engage in 'unfair' foreign-trade practices which are trade distorting in nature and adverse to the interests of the domestic firms. The affected importing countries, upon confirmation of the distortion, respond quickly by measures in the form of tariff responses to offset the distortion. These policies are often referred to as "trigger-price" mechanisms.