(GI–1, GI–2, GI–3, GI–6, VI–1, SI–1, VDI–1)

DATE: 11.10.2021   MAXIMUM MARKS: 100   TIMING: 3¼ Hours

FINANCIAL MANAGEMENT

SECTION - A
Q. No. 1 is compulsory.
Candidates are also required to answer any four questions
from the remaining five questions.
In case, any candidate answers extra question(s)/sub-question(s) over and above
the required number, then only the requisite number of questions top answered in
the answer book shall be valued and subsequent extra question(s) answered shall
be ignored.
Working Notes should form part of the respective answer.

Answer 1:

(a)   Workings Notes:

1.   Net Working Capital   = Current Assets – Current Liabilities
                                 = 2.5 – 1 = 1.5

Thus, Current Assets $= \dfrac{\text{Net Working Capital} \times 2.5}{1.5}$

$= \dfrac{₹4,50,000 \times 2.5}{1.5} = ₹7,50,000$ }{1/2 M}

2.   Sales   = Total Assets Turnover × Total Assets
               = 2 x (Fixed Assets + Current Assets)
               = 2 × (Rs. 10,00,000 + Rs. 7,50,000) = Rs. 35,00,000 }{1/2 M}

3.   Cost of Goods Sold   = 100% – 20% = 80% of Sales
                                = 80% of Rs. 35,00,000 = Rs. 28,00,000

4.   Average Stock $= \dfrac{\text{Cost of Good Sold}}{\text{Stock Turnover Ratio}}$

$= \dfrac{₹28,00,000}{7} = ₹4,00,000$

Closing Stock   = (Average Stock ×2) – Opening Stock
                   = (Rs. 4,00,000 × 2) – Rs. 3,80,000 = Rs. 4,20,000 }{1/2 M}

Quick Assets   = Current Assets – Closing Stock
                  = Rs. 7,50,000 – Rs. 4,20,000 = Rs. 3,30,000 }{1/2 M}

$\dfrac{\text{Debt}}{\text{Equity (here Proprietary fund)}}$ $= \dfrac{1}{1.5}$, Or Proprietary fund = 1.5 Debt.

Total Asset   = Proprietary Fund (Equity) + Debt
Or 17,50,000   = 1.5 Debt + Debt

Or Debt $= \dfrac{₹17,50,000}{2.5} = ₹7,00,000$

Proprietary fund   = 7,00,000 x 1.5 = ₹ 10,50,000

$= \dfrac{₹17,50,000 \times 1.5}{2.5} = ₹10,50,000$ }{1/2 M}

5.   Profit after tax (PAT) = Total Assets × Return on Total Assets

$$= ₹\,17,50,000 × 15\% = ₹\,2,62,500 \ \}\{1/2 \text{ M}\}$$

(i)   Calculation of Quick Ratio

$$\text{Quick Ratio} = \frac{\text{Quick Assets}}{\text{Current Liabilities}} = \frac{₹\,3,30,000}{₹\,3,00,000} = 1.1{:}1 \ \}\{1 \text{ M}\}$$

(ii)   Calculation of Fixed Assets Turnover Ratio

$$\text{Fixed Assets Turnover Ratio} = \frac{\text{Sales}}{\text{Fixed Assets}} = \frac{₹\,35,00,000}{₹\,10,00,000} = 3.5 \}\{1 \text{ M}\}$$

(iii)   Calculation of Proprietary Ratio

$$\text{Proprietary Ratio} = \frac{\text{Proprietary fund}}{\text{Total Assets}}$$

$$= \frac{₹\,10,50,000}{₹\,17,50,000} = 0.6 : 1 \ \}\{1 \text{ M}\}$$

(iv)   Calculation of Earnings per Equity Share (EPS)

$$\text{Earnings per Equity Share (EPS)} = \frac{\text{PAT - Preference Share Dividend}}{\text{Number of Equity Shares}}$$

$$= \frac{₹\,2,62,500 - ₹\,18,000 \ (9\% \text{ of } 2,00,000)}{60,000}$$

$$= ₹\,4.075 \text{ per share } \}\{1 \text{ M}\}$$

(v)   Calculation of Price-Earnings Ratio (P/E Ratio)

$$\text{P/E Ratio} = \frac{\text{Market Price of Equity Share}}{\text{EPS}} = \frac{₹\,16}{₹\,4.075} = 3.926 \ \}\{1 \text{ M}\}$$

Answer:
(b)   Working Notes:

	(Rs.)	
Net Profit after Tax	2,80,000	
Tax @ 30%	1,20,000	
EBT	4,00,000	{2 M}
Interest on Debentures	84,000	
EBIT	4,84,000	
Operating Expenses (1.5 times of EBIT)	7,26,000	
Sales	12,10,000	

(i)   Operating Leverage

$$= \frac{\text{Contribution}}{\text{EBIT}} = \frac{₹\,(12,10,000 - 6,29,200)}{₹\,4,84,000} = \frac{₹\,5,80,800}{₹\,4,84,000} = 1.2 \text{ times}$$

$$\textbf{Financial Leverage} = \frac{\text{EBIT}}{\text{EBT}} = \frac{4,84,000}{4,00,000} = 1.21 \text{ times } \}\{1 \text{ M}\}$$

(ii) **Cover for Preference Dividend**

$$= \frac{PAT}{\text{Preference Share Dividend}}$$

$$= \frac{₹ \, 2,80,000}{₹ \, 50,000} = 5.6 \text{ times}$$

Cover for Equity Dividend

$$= \frac{(PAT - \text{Preference Dividend})}{\text{Equity Share Dividend}} \qquad = \frac{₹ \, (2,80,000 - 50,000)}{₹ \, 1,20,000}$$

$$= \frac{₹ \, 2,30,000}{₹ \, 1,20,000} = 1.92 \text{ times } \}\{1 \text{ M}\}$$

(iii) **Earning Yield Ratio**

$$= \frac{EPS}{\text{Market Price}} \times 100$$

$$= \left(\frac{\frac{2,30,000}{80,000}}{23} \times 100 \right)$$

$$= \frac{2.875}{23} \times 100 = 12.5\%$$

Price – Earnings Ratio (PE Ratio)

$$= \frac{\text{Market Price}}{EPS} = \frac{23}{2.875}$$

$$= 8 \text{ times } \}\{1 \text{ M}\}$$

(iv) Net Funds Flow
= Net PAT + Depreciation - Total Dividend
= Rs. 2,80,000 + Rs. 96,800 - Rs. (50,000 + 1,20,000)
= Rs. 3,76,800 – Rs. 1,70,000
Net Funds Flow = Rs. 2,06,800 }{1 M}

Answer:
(c)   Calculation of Expected Value for Project A and Project B

Possible Event	Project A			Project B		
	Net Cash Flow (Rs.)	Probability	Expected Value (Rs.)	Cash Flow (Rs.)	Probability	Expected Value (Rs.)
A	80,000	0.10	8,000	2,40,000	0.10	24,000
B	1,00,000	0.20	20,000	2,00,000	0.15	30,000
C	1,20,000	0.40	48,000	1,60,000 {1 M}	0.50	80,000
D	1,40,000	0.20	28,000	1,20,000	0.15	18,000
E	1,60,000	0.10	16,000	80,000	0.10	8,000
ENCF			1,20,000			1,60,000

{1 M}

Project A:

Variance (σ^2) = $(80,000 - 1,20,000)^2 \times (0.1) + (1,00,000 - 1,20,000)^2 \times (0.2) + (1,20,000 - 1,20,000)^2 \times (0.4) + (1,40,000 - 1,20,000)^2 \times (0.2) + (1,60,000 - 1,20,000)^2 \times (0.1)$

= 16,00,00,000 + 8,00,00,000 + 0 + 8,00,00,000 + 16,00,00,000

= 48,00,00,000 **}{1 M}**

Standard Deviation (σ) = $\sqrt{\text{Variance}(\sigma^2)}$ = $\sqrt{48,00,00,000}$ = 21,908.90 **}{1 M}**

Project B:

Variance(σ^2) = $(2,40,000 - 1,60,000)^2 \times (0.1) + (2,00,000 - 1,60,000)^2 \times (0.15) + (1,60,000 - 1,60,000)^2 \times (0.5) + (1,20,000 - 1,60,000)^2 \times (0.15) + (80,000 - 1,60,000)^2 \times (0.1)$

= 64,00,00,000 + 24,00,00,000 + 0 + 24,00,00,000 + 64,00,00,000

= 1,76,00,00,000 **}{1 M}**

Standard Deviation (σ) = $\sqrt{1,76,00,00,000}$ = 41,952.35 **}{1 M}**

Answer 2:
Working Notes:

(1) **Computation of cost of debentures (K_d) :**

$$K_d = \frac{95(1 - 0.35) + (1,000 - 981.05)/3}{(1,000 + 981.05)/2} = 6.872\% \text{ }\{1 M\}$$

(2) **Computation of cost of term loans (K_T) :**

= $r(1-t)$

= $0.085(1 - 0.35) = 0.05525$ or 5.525% **}{1 M}**

(3) **Computation of cost of preference capital (K_P) :**

$$K_p = \frac{\text{Preference Dividend} + (RV - NP)/n}{(RV + NP)/2}$$

$$= \frac{10.5 + (100 - 98.15)/5}{(100 + 98.15)/2} = 0.1097 = 10.97\% \text{ }\{1 M\}$$

(4) **Computation of cost of equity (K_e) :**

= $R_f + ß(R_m - R_f)$

Or,   = Risk free rate + (Beta × Risk premium)

= $0.055 + (1.1875 \times 0.08) = 0.15$ or 15% **}{1 M}**

(i) **Calculation of Weighted Average cost of capital Using market value weights**

Source of Capital	Market value of capital structure (Rs. in millions)	Weights	After tax cost of capital (%)	WACC (%)
Equity share capital (150 million share x Rs. 60)	9,000	0.813	15.000	12.195
10.5% Preference share capital (1 million shares x Rs. 98.15)	98.15	0.0089	10.970	0.098
9.5 % Debentures 1.5 million x Rs. 981.05)	1,471.575	0.1329	6.872	0.913
8.5% Term loans	500	0.0452	5.525	0.249
	11,069.725	1.000		13.455

}{2 M}

(ii)   Marginal cost of capital (MCC) schedule :
New capital of Rs. 750 million will be raised in proportion of 20% Debt and 80% equity share capital i.e. Rs. 150 million debt and Rs.600 million equity.

Cost of equity shares (K_e)   = Risk free rate + (Beta × Risk premium)

   = 0.055 + (1.4375 × 0.08) = 0.17 or 17% }{1 M}

Cost of Debt (K_d):

for first Rs. 100 million	=	9.5% x (1 - 0.35)	=	6.175%	}{1/2 M}
for next Rs. 50 million	=	10% x (1 - 0.35)	=	6.5%	}{1/2 M}

Marginal Cost of Capital $= \left[0.17 \times \frac{600m}{750m} + 0.06175 \times \frac{100m}{750m} + 0.065 \times \frac{50m}{750m} \right]$ }{2 M}

= 0.136 + (0.008 + 0.004) = 0.148 or 14.8%

Answer 3:
(i)   Initial Cash Outflow:

	Amount (₹)
Cost of new machine	60,00,000
Less: Sale Price of existing machine	1,50,000
Net of Tax (₹ 2,50,0100 × 0.60)	
	58,50,000 }{2 M}

(ii)   Terminal Cash Flows:

(a)   New Machine

	Amount (₹)
Salvage value of Machine	2,50,000
Less: Depreciated WDV	2,50,000
{₹ 60,00,000 - (₹ 11,50,000 × 5 years)}	
STCG	Nil
Tax	Nil
Net Salvage Value (cash flows)	2,50,000 }{1 M}

(b)   Old Machine
Cash realised on disposal of existing machine after Rs. 35,000
Additional cash flows at terminal year = Rs. 2,15,000 (2,50,000-35,000)

(iii)   Calculation of Net Cash Flows

Particulars	Existing Machine	New Machine	Incremental
1. Production	80,000 Units	1,00,000 Units	20,000 Units
	(₹)	(₹)	(₹)
2. Selling Price	200	200	
3. Variable Cost	173	148	
4. Earnings before depreciation and Tax per Unit	27	52	
5. Total earnings before depreciation and Tax(1*4)	21,60,000	52,00,000	30,40,000
6. Less: Depreciation $(\frac{60,00,000 - 2,50,000}{5})$			11,50,000
7. Earning after depreciation before Tax			18,90,000
8. Less: Tax @40%			7,56,000
9. Earning after depreciation and Tax			11,34,000
10. Add: Depreciation			11,50,000
11. Net Cash inflow			22,84,000

{3 M}

Alternatively

(iii)   Computation of additional cash flows (yearly)

Particulars	Amount (₹)	Amount (₹)
Sales	1,60,00,000	2,00,00,000
Material	60,00,000	63,75,000
Wages & Salaries	41,00,000	37,50,000
Supervision	16,00,000	25,00,000
Repair & Maintenance	9,00,000	7,50,000
Power & fuel	12,40,000	14,25,000
Depreciation	--	11,50,000
Total cost	1,38,40,000	1,59,50,000
Profit(Sales – Total cost)	21,60,000	40,50,000
Less: Tax@40%	8,64,000	16,20,000
	12,96,000	24,30,000
Add: Depreciation	**	11,50,000*
	12,96,000	35,80,000
Incremental Cash inflow		22,84,000

*   Calculation of Depreciation $\dfrac{60,00,000 - 2,50,000}{5} = 11,50,000$

** As mention in the question WDV of Machine is zero for tax purpose hence no depreciation shall be provided in existing machine.

(iv)   Computation of NPV @ 15%

	Period	Cash flow (₹)	PVF	PV (₹)
Incremental cash flows	1-5	22,84,000	3.352	76,55,968
Add; Terminal year cash	5	2,15,000	0.4972	1,06,898
				77,62,866
Less: Additional cash outflow	0	58,50,000	1	58,50,000
			NPV	19,12,866

{4 M}

Answer 4:

(a)

	₹ in lakhs
Net Profit	30
Less: Preference dividend	12
Earning for equity shareholders	18
Therefore earning per share	18/3 = ₹ 6.00

{1/2 M}

Price per share according to Gordon's Model is calculated as follows:

$$P_0 = \frac{E_1(1-b)}{K_e - br}$$

Here, $E_1 = 6$, $K_e = 16\%$

(i) When dividend pay-out is 25%

$$P_0 = \frac{6 \times 0.25}{0.16 - (0.75 \times 0.2)} = \frac{1.5}{0.16 - 0.15} = 150 \quad \{1^{1/2}\ M\}$$

(ii) When dividend pay-out is 50%

$$P_0 = \frac{6 \times 0.5}{0.16 - (0.5 \times 0.2)} = \frac{3}{0.16 - 0.10} = 50 \quad \{1^{1/2}\ M\}$$

(iii) When dividend pay-out is 100%

$$P_0 = \frac{6 \times 1}{0.16 - (0 \times 0.2)} = \frac{6}{0.16} = 37.50 \quad \{1^{1/2}\ M\}$$

Answer:

(b)

Annual Benefit of accepting the Discount

$$\frac{Rs.\ 1.5}{Rs.\ 100 - Rs.\ 1.50} \times \frac{365\ days}{40 - 10\ days} = 18.53\% \quad \{2\ M\}$$

Annual Cost = Opportunity Cost of foregoing interest on investment = 15%

If average invoice amount is ₹ 10,00,000

	If discount is	
	Accepted (₹)	Not Accepted (₹)
Payment to Supplier (₹)	9,85000	10,00,000
Return on investment of ₹9,85,000 for 30 days {₹ 9,85,000 × (30/365) × 15%}		(12,144)
{1 M}	9,85,000	9,87,856 {1 M}

Thus, from above table it can be seen that it is cheaper to accept the discount. {1 M}

Answer 5:

Statement Showing Cost and Sales for the First Year

Annual Production Capacity	60,000 units
Production	40,000 units
Sales	35,000 units

Particulars	₹
Sales Revenue (₹ 80 × 35,000)	28,00,000
Cost of Production:	
Materials @ ₹ 20 per unit	8,00,000
Direct Labour @ ₹ 15 per unit	6,00,000
Manufacturing Overheads	
Variable @ ₹ 15 per unit	6,00,000
Fixed (based on production capacity 60,000 units × ₹ 10)	6,00,000
Cost of Production	26,00,000
Less: Closing Stock (40,000 – 35,000 = 5,000 units)	
$\left(₹ \dfrac{26,00,000}{40,000} \times 5,000 \text{ units} \right)$	3,25,000
Cost of Goods Sold	22,75,000
Add: Selling & Distribution Overheads	
Variable @ ₹ 3 × 35,000 units = 1,05,000	
Fixed (₹ 1 × 60,000 units) = 60,000	1,65,000
Cost of Sales	24,40,000
Profit	3,60,000

{2 M}

Statement Showing Working Capital Requirement

		₹
A.	**Current Assets**	
	Stock of Raw Materials (₹ 8,00,000 × 3/12)	2,00,000 }{1 M}
	Stock of Finished Goods	3,25,000 }{1 M}
	Debtors at Cost (₹ 24,40,000 × 3/24)	3,05,000 }{1 M}
	Cash and Bank	60,000 }{1/2 M}
	Total (A)	8,90,000
B.	**Current Liabilities**	
	Creditors for Materials (₹ 10,00,000 × 4/12)	3,33,333 }{1 M}
	Creditors for Expenses (₹ 13,65,000 × 1/24)	56,875 }{1/2 M}
	Outstanding Wages (₹ 6,00,000 × 1/12)	50,000 }{1/2 M}
	Total (B)	4,40,208
	Working Capital Requirement before Contingencies **(A – B)**	4,49,792
	Add: Provision for Contingencies (₹ 4,49,792 × 1/9)	49,977 }{1 M}
	Estimated Working Capital Requirement	4,99,769 }{1/2 M}

Workings Notes:

Purchase of Raw Material during the first year	₹
Raw Material consumed during the year	8,00,000
Add: Closing Stock of Raw Materials (3 months consumption)	2,00,000
	10,00,000 }{1 M}
Less: Opening Stock of Raw Material	Nil
Purchases during the year	10,00,000

Answer 6:

(a)   (i)   **Euro bonds**: Euro bonds are debt instruments which are not denominated in the currency of the country in which they are issued. E.g. a Yen note floated in Germany. {1 M}

(ii)   **Floating Rate Notes:** Floating Rate Notes: are issued up to seven years maturity. Interest rates are adjusted to reflect the prevailing exchange rates. They provide cheaper money than foreign loans. {1 M}

(iii)   **Euro Commercial Paper (ECP):** ECPs are short term money market instruments. They are for maturities less than one year. They are usually designated in US Dollars. {1 M}

(iv)   **Fully Hedged Bond:** In foreign bonds, the risk of currency fluctuations exists. Fully hedged bonds eliminate the risk by selling in forward markets the entire stream of principal and interest payments. {1 M}

Answer:
(b)   (i)   **Lease may low cost alternative:** Leasing is alternative to purchasing. As the lessee is to make a series of payments for using an asset, a lease arrangement is similar to a debt contract. The   benefit of lease is based on a comparison between leasing and buying an asset. Many lessees find lease more attractive because of low cost.

(ii)   **Tax benefit**: In certain cases tax benefit of depreciation   available   for owning an asset may be less than that available for lease payment

(iii)   **Working capital conservation:** When a firm buy an equipment by borrowing from a bank (or financial institution), they never provide 100% financing. But in case of lease one gets normally 100% financing. This enables conservation of working capital.

(iv)   **Preservation of Debt Capacity**: So, operating lease does not matter in computing debt equity ratio. This enables the lessee to go for debt financing more easily. The access to and ability of a firm to get debt financing is called debt capacity (also, reserve debt capacity).

(v)   **Obsolescence and Disposal:** After purchase of leased asset there may be technological obsolescence of the asset. That means a technologically upgraded asset with better capacity may come into existence after purchase. To retain competitive advantage the lessee as user may have to go for the upgraded asset.

{0.75 for Each Point for Any 4}

Answer:
(c)   Two Main Objective of Financial Management Two objectives of financial management are:

(i)   **Profit Maximisation**
It has traditionally been argued that the primary objective of a company is to earn profit; hence the objective of financial management is also profit maximisation.

{$1^{1/2}$ M}

(ii)   **Wealth / Value Maximization**
Wealth / Value Maximization Model. Shareholders wealth are the result of cost benefit analysis adjusted with their timing and risk i.e. time value of money. This is the real objective of Financial Management. So,

{$1^{1/2}$ M}

Wealth = Present Value of benefits – Present Value of Costs

ECONOMICS FOR FINANCE
SECTION - B
Q. No. 7 is compulsory.
Answer any three from the rest.
In case, any candidate answers extra question(s)/sub-question(s) over and above the required number, then only the requisite number of equestions first answered in the answer book shall be valued and subsequent extra question(s) answered shall be ignored.
Working Notes should form part of the respective answer.

Answer 7:

(a) Market Stabilization Scheme for monetary management was introduced in 2004 following a MoU between the Reserve Bank of India (RBI) and the Government of India (GoI) with the primary aim of aiding the sterilization operations of the RBI. **{1 M}**

(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). 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. **{2 M}**

Answer:

(b) Local content requirements (LCRs) are conditions imposed by a host country government that require investing firms to purchase and use domestically manufactured goods or domestically supplied services in order to operate in an economy. The fraction of a final good to be procured locally may be specified either in value terms (e.g. 25% of the value of a product must be locally produced), by requiring that some minimum share of the value of a good represent home value added, or in physical units (eg. 50% of component parts for a product must be locally produced). **{2 M}**

From the viewpoint of domestic producers of inputs, local content requirement provides greater demand which is not necessarily associated to their competitiveness and for components/ parts manufacturers gives protection in the same way that an import quota would. Local content requirement benefits producers and not consumers because such requirements may raise the prices. **{1 M}**

Answer:

(c) The GATT lost its relevance by 1980s because-

    (i)   It was obsolete to the fast evolving contemporary complex world trade scenario characterized by emerging globalization.

    (ii)   International investments had expanded substantially.

    (iii)   Intellectual property rights and trade in services were not covered by GATT.

    (iv)   World merchandise trade increased by leaps and bounds and was beyond its scope.

    (v)   The ambiguities in the multilateral system could be heavily exploited.

    (vi)   Efforts at liberalizing agricultural trade were not successful.

    (vii)   There were inadequacies in institutional structure and dispute settlement system.

    (viii)   It was not a treaty and therefore terms of GATT were binding only insofar as they are not incoherent with a nation's domestic rules.

{Any 4 Points each 1/2 Mark}

Answer:

(d) GDP measures what is produced or created over the current time period and excludes all non-production transactions. Only incomes earned by owners of primary factors of production for services rendered in production are included in national income. **{1 M}**

Transfer payments, both private and government, are made without goods or services being received in return. These payments do not correspond to return for contribution to production because they do not directly absorb resources or create output. Therefore, transfer incomes such as pensions and other social security payments are excluded from national income. **{1 M}**

Answer 8:

(a) NNP_{FC} or NI = Compensation of employees + Operating Surplus (rent + interest+ profit) + Mixed Income of Self- employed + Net Factor Income from Abroad **{2 M}**

= 3,000+ (1,020+2,010+980) +1,050+370 =Rs. 8,430 Crores **{1 M}**

Answer:

(b) The credit multiplier is the reciprocal of the required reserve ratio.

$$\text{Credit Multiplier} = \frac{1}{\text{Required Reserve Ratio}}$$

For RRR = 0.10 i.e. 10% the Credit Multiplier = 1/ 0.10 = 10 **{1 M}**

For RRR = 0.125 i.e. 12.5% Credit Multiplier = 1/ 0.125 = 8

Credit Creation = Initial Deposit x 1/RRR

For RRR = 0.10, Credit creation will be 1,00,000 x 1/0.10 = Rs. 10,00,000 **{1 M}**

For RRR = 0. 125, Credit creation will be 1,00,000 x 1/0. 125 = Rs. 8,00,000

Answer:

(c) The Neo classical Approach or the cash balance approach put forth by Cambridge economists holds that money increases utility in the following two ways:

1. for transaction motive, i.e. for enabling the possibility of split-up of sale and purchase to two different points of time rather than being simultaneous

2. as a temporary store of wealth i.e. for a hedge against uncertainty

Since demand for money also involves a precautionary motive in this approach and money gives utility in its store of wealth and precautionary modes, money is demanded for itself. How much money will be demanded depends: **{2 M}**

(i) partly on income which points to transactions demand, such that higher the income, the greater the quantity of purchases and as a consequence greater will be the need for money as a temporary abode of value to overcome transactions costs, and

(ii) partly on other factors of which important ones are wealth and interest rates.

The Cambridge equation is stated as:

Md = k PY

Where

Md = is the demand for money

Y = real national income

P = average price level of currently produced goods and services

PY = nominal income **{1 M}**

k = proportion of nominal income (PY) that people want to hold as cash balances

The term 'k' in the above equation is called 'Cambridge k'. The equation above explains that the demand for money (M) equals k proportion of the total money income. The neoclassical theory changed the focus of the quantity theory of money to money demand and hypothesized that demand for money is a function of money income.

Answer:

(d) A recessionary gap, also known as a contractionary gap, is said to exist if the existing levels of aggregate production is less than what would be produced with full employment of resources. It is a measure of output that is lost when actual national income falls short of potential income, and represents the difference between the actual aggregate demand and the aggregate demand which is required to establish the equilibrium at full employment level of income. This gap occurs during the contractionary phase of business-cycle and results in higher rates of unemployment. **{1 M}**

In other words, a recessionary gap occurs when the aggregate demand is not sufficient to create conditions of full employment. **{1 M}**

Answer 9:

(a) Circular flow of income refers to the continuous circulation of production, income generation and expenditure involving different sectors of the economy. There are three different interlinked phases in a circular flow of income, namely: production, distribution and disposition as can be seen from the following figure[*].

Circular Flow of Income

{1 M}
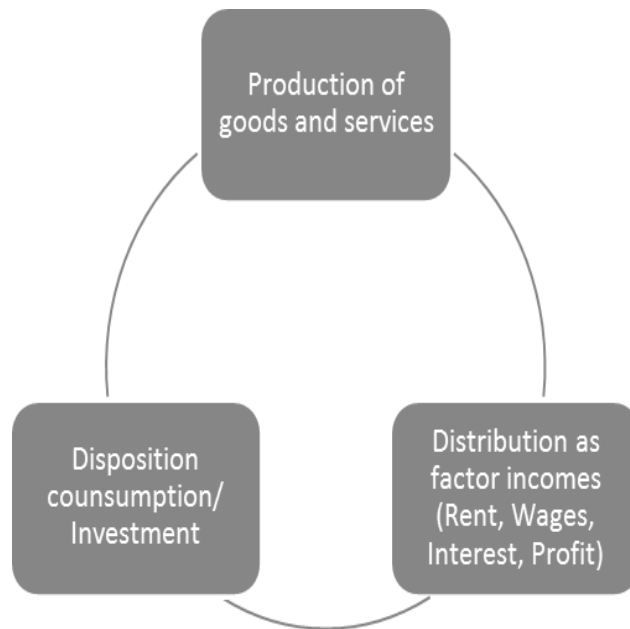
(i) In the production phase, firms produce goods and services with the help of factor services.

(ii) In the income or distribution phase, there is a flow of factor incomes in the form of rent, wages, interest and profits from firms to the households.

(iii) In the expenditure or disposition phase, the income received by different factors of production is spent on consumption goods and services and investment goods. This expenditure leads to further production of goods and services and sustains the circular flow.

It is clear from the figure that income is first generated in production unit, then it is distributed to households in the form of wages, rent, interest and profit. This increases the demand for goods and services and as a result there is increase in consumption expenditure. This leads to further production of goods and services and thus make the circular flow complete. These processes of production, distribution and disposition keep going on simultaneously. **{2 M}**

Answer:

(b) The principal objective of the WTO is to facilitate the flow of international trade smoothly, freely, fairly and predictably. The WTO agreement aims to increase world trade by enhancing market access by the following:

(i) The agreement specifies the conduct of trade without discrimination. The Most-favoured-nation (MFN) principle holds that if a country lowers a trade barrier or opens up a market, it has to do so for the same goods or services from all other WTO members.

(ii) The National Treatment Principle requires that a country should not discriminate between its own and foreign products, services or nationals. With respect to internal taxes, internal laws, etc. applied to imports, treatment not less favourable than that which is accorded to like domestic products must be accorded to all other members.

(iii) The principle of general prohibition of quantitative restrictions

(iv) By converting all non- tariff barriers into tariffs which are subject to country specific limits.

(v) The imposition of tariffs should be only legitimate measures for the protection of domestic industries, and tariff rates for individual items are being gradually reduced through negotiations 'on a reciprocal and mutually advantageous' basis.

(vi) In major multilateral agreements like the Agreement on Agriculture (AOA), specific targets have been specified for ensuring market access.

{Any 4 Points each 1/2 Mark}

Answer:

(c) Discretionary fiscal policy for stabilization refers to the deliberate policy actions on the part of a government to change the levels of expenditure, taxes and borrowing to influence the level of national output, employment and prices. Governments aim to correct the instabilities in the economy by changing:

(i) the level and types of taxes,

(ii) the extent and composition of spending, and

(iii) the quantity and form of borrowing.

{1 M}

During inflation, or during the expansionary phase of the business cycle when there is excessive aggregate spending and excessive level of utilization of resources, contractionary fiscal policy is adopted to close the inflationary gap. This measure involves:

(i) decrease in government spending,

(ii) increase in personal and business taxes, and introduction of new taxes

(iii) a combination of decrease in government spending and increase in personal income taxes and/or business taxes

(iv) a smaller government budget deficit or a larger budget surplus

(v) a reduction in transfer payments

(vi) increase in government debt from the domestic economy

{1 M}

During deflation or during a recessionary/contractionary phase of the business cycle, with sluggish economic activity when the rate of utilization of resources is less, expansionary fiscal policy aims to compensate the deficiency in effective demand by boosting aggregate demand. The recessionary gap is set right by:

(i) increased government spending,

(ii) decrease in personal and business taxes,

(iii) a combination of increase in government spending and decrease in personal income taxes and/or business taxes

(iv) a larger government budget deficit or a lower budget surplus

(v) an increase in transfer payments

(vi) repayment of public debt to people

{1 M}

Answer:

(d)   {'Reverse repo operation' is a monetary policy instrument and in effect it absorbs the liquidity from the system. This operation takes place when the RBI borrows money from commercial banks by selling them securities (which RBI permits) with an agreement to repurchase the securities on a mutually agreed future date at an agreed price which includes interest for the funds borrowed.} **{1 M}** {The interest rate paid by the RBI for such borrowings is called the "Reverse Repo Rate". Thus, reverse repo rate is the rate of interest paid by the RBI on its borrowings from commercial banks.} **{1 M}**

Answer 10:

(a)   The major issues are:

(i)   The progress of multilateral negotiations on trade liberalization is very slow and the requirement of consensus among all members acts as a constraint and creates rigidity in the system. As a result, countries find regionalism a plausible alternative.

(ii)   The complex network of regional agreements introduces uncertainties and murkiness in the global trade system.

(iii) While multilateral efforts have effectively reduced tariffs on industrial goods, the achievement in liberalizing trade in agriculture, textiles, and apparel, and in many other areas of international commerce has been negligible.

(iv)   The latest negotiations, such as the Doha Development Round, have run into problems, and their definitive success is doubtful.

(v)   Most countries, particularly developing countries are dissatisfied with the WTO because, in practice, most of the promises of the Uruguay Round agreement to expand global trade has not materialized.

(vi)   The developing countries have raised a number of concerns and a few are presented here:

- The real expansion of trade in the three key areas of agriculture, textiles and services has been dismal.

- Protectionism and lack of willingness among developed countries to provide market access on a multilateral basis has driven many developing countries to seek regional alternatives.

- The developing countries have raised a number of issues in the Doha Agenda in respect of the difficulties that they face in implementing the present agreements.

- The North-South divide apparent in the WTO ministerial meets has fuelled the apprehension of developing countries about the prospect of trade expansion under the WTO regime.

- Developing countries complain that they face exceptionally high tariffs on selected products in many markets and this obstructs their vital exports.

- Another major issue concerns 'tariff escalation' where an importing country protects its processing or manufacturing industry by setting lower duties on imports of raw materials and components, and higher duties on finished products.

- There is also possible erosion of preferences i.e. the special tariff concessions granted by developed countries on imports from certain developing countries have become less meaningful because of the narrowing of differences between the normal and preferential rates.

- The least-developed countries find themselves disproportionately disadvantaged and vulnerable with regard to adjustments due to lack of human as well as physical capital, poor infrastructure, inadequate institutions, political instabilities etc.

{ Any 6 Points each 1/2 Mark}

Answer:

(b) Yes, there is still scope for mutually beneficial trade. **{1 M}**

The first step is that nation should specialize in the production and export of the commodity in which its absolute disadvantage is smaller and import the commodity in which its absolute disadvantage is greater. This can be explained with the help of an example (Theory of Comparative Advantage). **{2 M}**

Answer:

(c) The market outcomes of different situations are given below;

(i) Negative consumption externality; social cost not accounted for; market failure; overproduction **{1 M}**

(ii) Negative consumption externality; environmental externality; wear and tear of roads; increased fuel consumption; added insecurity imposed on others; social cost not accounted for; overproduction. **{1 M}**

Answer:

(d) Quasi-public goods or services, also called a near public good (for e.g. education, health services) possess nearly all the qualities of private goods and some of the benefits of public good. These goods are, in some measure excludable for example, it is possible to exclude non paying consumers from the use of a highway by incurring the cost of building and maintaining a toll booth. Similarly beaches, parks and wifi networks become partially rival and partially diminishable at times of peak demand. **{1 M}**

These are rejectable to some extent. It is possible to keep people away from them by charging a price or fee. However, it is undesirable to keep people away from such goods because the society would be better off if more people consume them. This particular characteristic namely, the combination of virtually infinite benefits and the ability to charge a price results in some quasi-public goods being sold through markets and others being provided by government. As such, people argue that these should not be left to the market alone. Markets for the quasi-public goods are considered to be incomplete markets and their lack of provision by free markets would be considered as inefficiency and market failure. **{1 M}**

Answer 11:

(a) Gross Domestic Product at Market Price (GDP_{MP}) = Gross Domestic Product at Factor Cost (GDP_{FC}) + (Indirect Taxes – Subsidies) **{1 M}**

$\therefore$ Subsidies = GDP_{FC} + Indirect tax - GDP_{MP}

= 360815 + 454367 – 779567 **{2 M}**

= Rs. 35,615 Crores

Answer:

(b) Global Public Goods are those public goods with benefits /costs that potentially extend to everyone in the world. These goods have widespread impact on different countries and regions, population groups and generations throughout the entire globe. Global Public Goods may be:

- final public goods which are 'outcomes' such as ozone layer preservation or climate change prevention, or
- intermediate public goods, which contribute to the provision of final public goods. e.g. International health regulations. **{1 M}**

The distinctive characteristic of global public goods is that there is no mechanism (either market or government) to ensure an efficient outcome.

The World Bank identifies five areas of global public goods which it seeks to address: namely, the environmental commons (including the prevention of climate change and biodiversity), communicable diseases (including HIV/AIDS, tuberculosis, malaria, and avian influenza), international trade, international financial architecture, and global knowledge for development. **{1 M}**

Answer:

(c) Pollution tax is imposed on the polluting firms in proportion to their pollution output to ensure internalization of externalities. Following are the problems in administering an efficient pollution tax:

1. Pollution taxes are complex to determine and administer because it is difficult to discover the right level of taxation that would ensure that the private cost plus taxes will exactly equate with the social cost.
2. If the demand for the good on which pollution tax is imposed is inelastic, the tax may only have an insignificant effect in reducing demand. The producers will be able to easily shift the tax burden in the form of higher product prices. This will have an inflationary effect and may reduce consumer welfare.
3. Imposition of pollution tax involves the use of complex and costly administrative procedures for monitoring the polluters.
4. Pollution tax does not provide any genuine solutions to the problem. It only establishes an incentive system for use of methods which are less polluting.
5. Pollution taxes also have potential negative consequences on employment and investments because high pollution taxes in one country may encourage producers to shift their production facilities to those countries with lower pollution taxes.

{ Any 3 Points each 1 Mark}

Answer:

(d) Open Market Operations (OMO) is a general term used for monetary policy involving market operations conducted by the Reserve Bank of India by way of sale/ purchase of government securities to/ from the market with an objective to adjust the rupee liquidity conditions in the market on a durable basis. **{1 M}**

When the Reserve Bank of India feels that there is excess rupee liquidity in the market, it resorts to sale of government securities for absorption of the excess liquidity. Similarly, when the liquidity conditions are tight, the RBI will buy securities from the market, thereby injecting liquidity into the market. **{1 M}**

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