

(GI-11, GI-12+15, GI-13+14, SI-5)

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MAXIMUM MARKS: 100

TIMING: 3¼ Hours

FINANCIAL MANAGEMENT & ECONOMICS FOR FINANCE**SECTION - A****Answer 1:****(a) (i) Financial leverage**

Combined Leverage = Operating Leverage (OL) × Financial Leverage (FL) 2.8
 = 1.4 × FL Or, FL = 2

Financial Leverage = 2 **{1 M}**

(ii) P/V Ratio and EPS

$$\text{Operating leverage} = \frac{\text{Contribution (C)}}{\text{C} - \text{Fixed Cost (FC)}} \times 100$$

$$1.4 = \frac{C}{C - 2,04,000} \text{ Or, } 1.4 (C - 2,04,000) = C$$

$$\text{Or, } 1.4 C - 2,85,600 = C \text{ Or, } C = \frac{₹ 2,85,600}{0.4} = C = 7,14,000$$

$$\text{Now, P/V ratio} = \frac{\text{Contribution (C)}}{\text{Sales (S)}} \times 100 = \frac{₹ 7,14,000}{₹ 30,00,000} \times 100 = 23.8\% \text{ } \{1 M\}$$

Therefore, P/V Ratio = 23.8%

$$\text{EPS} = \frac{\text{Profit after tax}}{\text{No. of equity shares}}$$

$$\begin{aligned} \text{EBT} &= \text{Sales} - V - \text{FC} - \text{Interest} \\ &= ₹ 30,00,000 - ₹ 22,86,000 - ₹ 2,04,000 - ₹ 2,55,000 \\ &= ₹ 2,55,000 \end{aligned}$$

$$\begin{aligned} \text{PAT} &= \text{EBT} - \text{Tax} \\ &= ₹ 2,55,000 - ₹ 76,500 = ₹ 1,78,500 \end{aligned}$$

$$\text{EPS} = \frac{₹ 1,78,500}{₹ 1,70,000} = 1.05 \text{ } \{1 M\}$$

(iii) Assets turnover

$$\text{Assets turnover} = \frac{\text{Sales}}{\text{Total Assets}} = \frac{₹ 30,00,000}{₹ 38,25,000} = 0.784 \text{ } \{1 M\}$$

0.784 < 1.5 means lower than industry turnover.

- (iv) EBT zero means 100% reduction in EBT. Since combined leverage is 2.8, sales have to be dropped by $100/2.8 = 35.71\%$. Hence new sales will be $₹. 30,00,000 \times (100 - 35.71) = ₹. 19,28,700$.
 Therefore, at $₹. 19,28,700$ level of sales, the Earnings before Tax of the company will be equal to zero. **{1 M}**

Answer:

(b) $\frac{\text{Long-term debt}}{\text{Net worth}} = 0.5 = \frac{\text{Long-term debt}}{2,00,000}$ } **1M**
 Long-term debt = Rs. 1,00,000
 Total liabilities and net worth = Rs. 4,00,000
 Total assets = Rs. 4,00,000

$\frac{\text{Sales}}{\text{Total assets}} = 2.5 = \frac{\text{Sales}}{4,00,000} = \text{Sales} = \text{Rs. } 10,00,000$ } **1M**
 Cost of goods sold = (0.9) (Rs. 10,00,000) = Rs. 9,00,000.
 $\frac{\text{Cost of goods sold}}{\text{Inventory}} = \frac{9,00,000}{\text{Inventory}} = 9 = \text{Inventory} = \text{Rs. } 1,00,000$ }

$\frac{\text{Receivables} \times 360}{10,00,000} = 18 \text{ days}$ } **1M**
 Receivables = Rs. 50,000

$\frac{\text{Cash} + 50,000}{1,00,000} = 1$ } **1M**
 Cash = Rs. 50,000
 Plant and equipment = Rs. 2,00,000. } **1/2M**

Balance Sheet

	Rs.		Rs.
Cash	50,000	Notes and payables	1,00,000
Accounts receivable	50,000	Long-term debt } 1/2M	1,00,000
Inventory	1,00,000	Common stock	1,00,000
Plant and equipment	2,00,000	Retained earnings	1,00,000
Total assets	4,00,000	Total liabilities and equity	4,00,000

Answer:

(c) (i) Statement showing value of the firm

	(₹)
Net operating income/EBIT	5,00,000
Less: Interest on debentures (10% of ₹ 15,00,000)	(1,50,000)
Earnings available for equity holders	3,50,000
Total cost of capital (K_0) (given)	15%
Value of the firm $V = \frac{\text{EBIT}}{K_0} = \frac{5,00,000}{0.15}$	33,33,333

2 1/2M

(ii) Calculation of cost of equity

	(₹)
Market value of debt (D)	15,00,000
Market value of equity (S) $S = V - D = ₹33,33,333 - ₹15,00,000$	18,33,333

$$K_e = \frac{\text{Earnings available for equity holders}}{\text{Value of equity (S)}}$$

$$\text{Or, } = \frac{\text{EBIT} - \text{Interest paid on debt}}{\text{Market value of equity}} = \frac{₹ 3,50,000}{₹ 18,33,333} = 19.09\%$$

OR

$$K_e = K_s \left(\frac{S}{V} \right) + K_d \left(\frac{D}{V} \right)$$

$$K_e = K_s \left(\frac{V}{S} \right) - K_d \left(\frac{D}{S} \right)$$

$$= 0.15 \left(\frac{33,33,333}{18,33,333} \right) - 0.10 \left(\frac{15,00,000}{18,33,333} \right)$$

$$= \frac{1}{18,33,333} [(0.15 \times 33,33,333) - 0 (0.10 \times 15,00,000)]$$

$$= \frac{1}{18,33,333} [5,00,000 - 1,50,000] = 19.09\%$$

2½M

Answer:

(d) Working Notes:

1. Capital employed before expansion plan:

	(Rs.)
Equity shares (Rs. 10 × 80,000 shares)	8,00,000
Debentures {(Rs. 1,20,000/12) × 100}	10,00,000
Retained earnings	12,00,000
Total capital employed	30,00,000

{1/2 M}

2. Earnings before the payment of interest and tax (EBIT):

	(Rs.)
Profit (EBT)	3,00,000
Interest	1,20,000
EBIT	4,20,000

{1/2 M}

3. Return on Capital Employed (ROCE):

$$\text{ROCE} = \frac{\text{EBIT}}{\text{Capital employed}} \times 100 = \frac{₹4,20,000}{₹30,00,000} \times 100 = 14\% \quad \left. \right\} \{1/2 M\}$$

4. Earnings before interest and tax (EBIT) after expansion scheme:

After expansion, capital employed \nwarrow {1/2 M}
 = Rs. 30,00,000 + Rs. 4,00,000 = Rs. 34,00,000 Desired EBIT
 = 14% × Rs. 34,00,000 = Rs. 4,76,000 } {1/2 M}

(i) Computation of Earnings Per Share (EPS) under the following options:

	Present situation	Expansion scheme	
		Additional funds raised as	
	(₹)	Debt	Equity
Earnings before Interest and Tax (EBIT)	4,20,000	4,76,000	476,000
Less: Interest - Old capital	1,20,000	1,20,000	1,20,000
- New capital	--	48,000 (₹4,00,000 × 12%)	--
Earnings before Tax (EBT)	3,00,000	3,08,000	3,56,000
Less: Tax (50% of EBT)	1,50,000	1,54,000	1,78,000
PAT	1,50,000	1,54,000	1,78,000
No. of shares outstanding	80,000	80,000	1,20,000
Earnings per Share (EPS)	1.875 $\left(\frac{₹1,50,000}{80,000}\right)$	1.925 $\left(\frac{₹1,54,000}{80,000}\right)$	1.48 $\left(\frac{₹1,78,000}{1,20,000}\right)$

{1/2 M}

{1/2 M}

{1/2 M}

(ii) Advise to the Company: When the expansion scheme is financed by additional debt, the EPS is higher. Hence, the company should finance the expansion scheme by raising debt. {1 M}

Answer 2:

(a) (i) Statement showing computation of expected net present value of Projects A and B:

Project A			Project B		
NPV Estimate (Rs.)	Probability	Expected Value	NPV Estimate	Probability	Expected Value
15,000	0.2	3,000	15,000	0.1	1,500
12,000	0.3	3,600	12,000	0.4	4,800
6,000	0.3	1,800	6,000	0.4	2,400
3,000	0.2	600	3,000	0.1	300
	1.0	EV = 9,000	{1 M}	1.0	EV = 9,000 {1 M}

(ii) Computation of Standard deviation of each project

PROJECT A

P	X	(X – EV)	P (X – EV) ²
0.2	15,000	6,000	72,00,000
0.3	12,000	3,000	27,00,000
0.3	6,000	- 3,000	27,00,000
0.2	3,000	- 6,000	72,00,000
			Variance = 1,98,00,000

Standard Deviation of Project A = $\sqrt{1,98,00,000}$ = Rs. 4,450 {2 M}

PROJECT B

P	X	(X – EV)	P (X- EV) ²
0.1	15,000	6,000	36,00,000
0.4	12,000	3,000	36,00,000
0.4	6,000	3,000	36,00,000
0.1	3,000	6,000	36,00,000
			Variance = 1,44,00,000

Standard Deviation of Project B = $\sqrt{1,44,00,000} = \text{Rs. } 3,795 \text{ } \{2 \text{ M}\}$

(iii) Computation of profitability of each project

Profitability index = Discount cash inflow / Initial outlay

$$\text{In case of Project A: PI} = \frac{9,000 + 36,000}{36,000} = \frac{45,000}{36,000} = 1.25 \text{ } \{1 \text{ M}\}$$

$$\text{In case of Project B: PI} = \frac{9,000 + 30,000}{30,000} = \frac{39,000}{30,000} = 1.30 \text{ } \{1 \text{ M}\}$$

- (iv) In the selection of one of the two projects A and B, Project B is preferable because the possible profit which may occur is subject to less variation (or dispersion). Much higher risk is lying with project A } {2 M}

Answer 3:

Calculation of Net Working Capital requirement:

	(₹)	(₹)	
A. Current Assets:			
Inventories:			
- Raw material stock (Refer to Working note 3)	6,64,615	} 1M	
- Work in progress stock (Refer to Working note 2)	5,00,000		} 1½M
- Finished goods stock (Refer to Working note 4)	13,60,000		
Receivables (Debtors) (Refer to Working note 5)	25,40,769	} 1½M	
Cash and Bank balance	25,000		
Gross Working Capital	50,60,384	50,60,384 } ½M	
B. Current Liabilities:			
Creditors for raw materials (Refer to Working note 6)	7,15,740	} 1M	
Creditors for wages (Refer to Working note 7)	91,731		
	8,07,471	8,07,471 } ½M	
Net Working Capital (A - B)		42,52,913 } ½M	

Working Notes:

1. Annual cost of production

	(₹)
Raw material requirements $\{(1,04,000 \text{ units} \times ₹ 80) + ₹ 3,20,000\}$	86,40,000
Direct wages $\{(1,04,000 \text{ units} \times ₹ 30) + ₹ 60,000\}$	31,80,000
Overheads (exclusive of depreciation) $\{(1,04,000 \times ₹ 60) + ₹ 1,20,000\}$	63,60,000
Gross Factory Cost	1,81,80,000
Less: Closing W.I.P	(5,00,000)
Cost of Goods Produced	1,76,80,000
Less: Closing Stock of Finished Goods $(₹ 1,76,80,000 \times 8,000/1,04,000)$	(13,60,000)
Total Cash Cost of Sales	1,63,20,000

} ½M

2. Work in progress stock

	(₹)
Raw material requirements $(4,000 \text{ units} \times ₹ 80)$	3,20,000
Direct wages $(50\% \times 4,000 \text{ units} \times ₹ 30)$	60,000
Overheads $(50\% \times 4,000 \text{ units} \times ₹ 60)$	1,20,000
	5,00,000

3. Raw material stock

It is given that raw material in stock is average 4 weeks consumption. Since, the company is newly formed, the raw material requirement for production and work in progress will be issued and consumed during the year.

Hence, the raw material consumption for the year (52 weeks) is as follows:

	(₹)
For Finished goods $(1,04,000 \times ₹ 80)$	83,20,000
For Work in progress $(4,000 \times ₹ 80)$	3,20,000
	86,40,000

} ½M

Raw material stock $\frac{\text{Rs. } 86,40,000}{52 \text{ weeks}} \times 4 \text{ weeks}$ i.e. Rs. 6,64,615

4. Finished goods stock: 8,000 units@ Rs. 170 per unit = 13,60,000

5. Debtors for sale: $1,63,20,000 \times \frac{8}{52} = \text{Rs. } 25,10,769$

6. Creditors for raw material:

Material Consumed (Rs. 83,20,000 + Rs. 3,20,000)	Rs. 86,40,000
Add: Closing Stock of raw material	Rs. 6,64,615
	Rs. 93,04,615
Credit allowed by suppliers = $\frac{\text{Rs. } 93,04,615}{52 \text{ weeks}} \times 4 \text{ weeks}$	= Rs. 7,15,740

} ½M

7. Creditors for wages

Outstanding wage payment = $\frac{\text{Rs. } 31,80,000}{52 \text{ weeks}} \times 1.5 \text{ weeks} = \text{Rs. } 91,731$

Answer 4:

Working notes:

1 Computation of Net Present Values of Projects

Year	Cash flows		Disct. factor @ 16 %	Discounted Cash flow	
	Project A (₹)	Project B (₹)		Project A (₹)	Project B (₹)
	(1)	(2)	(3)	(3) × (1)	(3) × (2)
0	(1,35,000)	(2,40,000)	1.000	(1,35,000)	(2,40,000)
1	–	60,000	0.862	–	51,720
2	30,000	84,000	0.743	22,290	62,412
3	1,32,000	96,000	0.641	84,612	61,536
4	84,000	1,02,000	0.552	46,368	56,304
5	84,000	90,000	0.476	39,984	42,840
Net present value				58,254	34,812

1M

2 Computation of Cumulative Present Values of Projects Cash inflows

Year	Project A		Project B	
	PV of cash inflows (₹)	Cumulative PV (₹)	PV of cash inflows (₹)	Cumulative PV (₹)
1	–	–	51,720	51,720
2	22,290	22,290	62,412	1,14,132
3	84,612	1,06,902	61,536	1,75,668
4	46,368	1,53,270	56,304	2,31,972
5	39,984	1,93,254	42,840	2,74,812

1M

(i) Discounted payback period : (Refer to Working note 2)

Cost of Project A = Rs. 1,35,000

Cost of Project B = Rs. 2,40,000

Cumulative PV of cash inflows of Project A after 4 years = Rs. 1,53,270

Cumulative PV of cash inflows of Project B after 5 years = Rs. 2,74,812

A comparison of projects cost with their cumulative PV clearly shows that the project A's cost will be recovered in less than 4 years and that of project B in less than 5 years. The exact duration of discounted payback period can be computed as follows:

	Project A	Project B
Excess PV of cash inflows over the project cost (₹)	18,270 (₹ 1,53,270 – ₹ 1,35,000)	34,812 (₹ 2,74,812 – ₹ 2,40,000)
Computation of period required to recover excess amount of cumulative PV over project cost (Refer to Working note 2)	0.39 year (₹ 18,270 ÷ ₹ 46,368)	0.81 years (₹ 34,812 ÷ ₹ 42,840)
Discounted payback period	3.61 year (4 – 0.39) years	4.19 years (5 – 0.81) years

1½M

1½M

(ii) Profitability Index(PI):
$$= \frac{\text{Sum of discounted cash inflows}}{\text{Initian cash outlay}}$$

Profitability Index (for Project A) = $\frac{₹ 1,93,254}{₹ 1,35,000} = 1.43$ } 1½M

Profitability Index (for Project B) = $\frac{₹ 2,74,812}{₹ 2,40,000} = 1.15$ } 1½M

(iii) Net present value(NPV) (for Project A) = ₹ 58,254 } ½M

Net present value(NPV) (for Project B) = ₹ 34,812 } ½M

(Refer to Working note 1)

Conclusion: As the NPV, PI of Project A is higher and Discounted Pay back is lower, therefore Project a should be accepted. } 1 M

Answer 5:

(i) Statement of Weighted Average Cost of Capital

Project cost	Financing	Proportion of capital Structure	After tax cost (1-Tax 50%)	Weighted average cost (%)	
Upto ₹ 2 Lakhs	Debt	0.4	10% (1 - 0.5) = 5%	0.4 × 5 = 2.0	
	Equity	0.6	12%	0.6 × 12 = 7.2	
				<u>9.2%</u>	} 2M
Above ₹ 2 lakhs & upto to ₹ 5 Lakhs	Debt	0.4	11% (1 - 0.5) = 5.5%	0.4 × 5.5 = 2.2	
	Equity	0.6	13%	0.6 × 13 = 7.8	
				<u>10.0%</u>	} 2M
Above ₹ 5 lakhs & upto ₹ 10 lakhs	Debt	0.4	12% (1 - 0.5) = 6%	0.4 × 6 = 2.4	
	Equity	0.6	14%	0.6 × 14 = 8.4	
				<u>10.8%</u>	} 2M
Above ₹ 10 lakhs & upto ₹ 20 lakhs	Debt	0.4	13% (1 - 0.5) = 6.5%	0.4 × 6.5 = 2.6	
	Equity	0.6	14.5%	0.6 × 14.5 = 8.7	
				<u>11.3%</u>	} 2M

Project	Fund requirement	Cost of capital
X	Rs. 6.5 lakhs	10.8% (from the above table)
Y	Rs. 14 lakhs	11.3% (from the above table)

1M

- (ii) If a Project is expected to give after tax return of 10%, it would be acceptable provided its project cost does not exceed Rs. 5 lakhs or, after tax return should be more than or at least equal to the weighted average cost of capital. 1M

Answer 6:

- (a) Today, the role of chief financial officer, or CFO, is no longer confined to accounting, financial reporting and risk management. It’s about being a strategic business partner of the chief executive officer, or CEO. Some of the key differences that highlight the changing role of a CFO are as follows:-

What a CFO used to do?	What a CFO now does?
Budgeting	Budgeting
Forecasting	Forecasting
Accounting	Managing M&As
Treasury (cash management)	Profitability analysis (for example, by customer or product)
Preparing internal financial reports for management.	Pricing analysis
Preparing quarterly, annual filings for investors.	Decisions about outsourcing
Tax filing	Overseeing the IT function.
Tracking accounts payable and accounts receivable.	Overseeing the HR function.
Travel and entertainment expense management.	Strategic planning (sometimes overseeing this function).
	Regulatory compliance.
	Risk management.

5 M

Answer:

- (b) The differences between Factoring and Bills discounting are as follows:
- (i) Factoring is called as 'Invoice factoring' whereas bills discounting is known as "Invoice discounting".
 - (ii) In factoring the parties are known as client, factor and debtor whereas in bills discounting they are known as Drawer, Drawee and Payee.
 - (iii) Factoring is a sort of management of book debts whereas bills discounting is a sort of borrowing from commercial banks.
 - (iv) For factoring there is no specific Act; whereas in the case of bills discounting, the Negotiable Instrument Act is applicable.

1.25 M for each point

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 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 7:

- (a) (i) Government intervenes to ensure price stability and thus regulate aggregate demand with two policy instruments namely, monetary (credit) policy and fiscal (budgetary) policy. Monetary policy attempts to stabilise aggregate demand in the economy by influencing the availability and cost of money, i.e., the rate of interest. Fiscal policy, on the other hand, aims at influencing aggregate demand by altering tax, public expenditure and public debt of the government. When total spending is too low, the government may increase its spending and/or lower taxes to reduce unemployment and the central bank may lower interest rates. When total spending is excessive, the government may cut its spending and/or raise taxes to foster price stability and the central bank may raise interest rates. In addition, the government may initiate regulatory measures such as price ceiling and price floors. **{1 M}**
- (ii) M4 = Currency and coins with the people + demand deposits with the banks (Current and Saving accounts) + other deposits with the RBI + Net time deposits with the banking system + Total deposits with the Post Office Savings (excluding National Savings Certificates). **{1 M}**

Components	Rs. in Crores
Currency with the public	1,12,206.6
Demand deposits with banks	1,93,300.4
Other deposits with the RBI	614.8
Net time deposits with the banking system.	2,67,310.2
Post Office Savings deposits	277.5
Total	5,73,709.5

{2 M}

Answer:

- (b) In recent years, apprehensions have been raised in respect of the WTO and its ability to maintain and extend a system of liberal world trade. 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. Moreover, contemporary trade barriers are much more complex and difficult to negotiate in a multilateral forum. Logically, these issues are found easier to discuss on bilateral or regional level.
- (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 contend that the real expansion of trade in the three key areas of agriculture, textiles and services has been dismal.
- (vii) 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.
- (viii) 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.
- (ix) 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.
- (x) Developing countries complain that they face exceptionally high tariffs on selected products in many markets and this obstructs their vital exports. Examples are tariff peaks on textiles, clothing, and fish and fish products.
- (xi) 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.
- (xii) 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.
- (xiii) 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.

**{1/2 M
for any 6
points}**

Answer:

- (c)** The Doha Round, formally the Doha Development Agenda, which is the ninth round since the Second World War was officially launched at the WTO's Fourth Ministerial Conference in Doha, Qatar, in November 2001. The round seeks to accomplish major modifications of the international trading system through lower trade barriers and revised trade rules. The negotiations include 20 areas of trade, including agriculture, services trade, market access for nonagricultural products, and certain intellectual property issues. The most controversial topic in the yet to conclude Doha Agenda has been agriculture trade.

{1 M}

{1 M}

Answer 8:

- (a)** The WTO's top level decision-making body is the Ministerial Conference which can take decisions on all matters under any of the multilateral trade agreements. The Ministerial Conference meets at least once every two years. The next level is the General Council which meets several times a year at the Geneva headquarters. The General Council also meets as the Trade Policy Review Body and the Dispute Settlement Body. At the next level, the Goods Council, Services Council and Intellectual Property (TRIPS) Council report to the General Council. These councils are responsible for overseeing the implementation of the WTO agreements in their respective areas of specialisation.

{1^{1/2} M}

{1^{1/2} M}

Answer:

- (b) Countervailing duties are tariffs that aim to offset the artificially low prices charged by exporters who enjoy export subsidies and tax concessions offered by the governments in their home country. If a foreign country does not have a comparative advantage in a particular good and a government subsidy allows the foreign firm to be an exporter of the product, then the subsidy generates a distortion from the free-trade allocation of resources. In such cases, CVD is charged in an importing country to negate the advantage that exporters get from subsidies to ensure fair and market oriented pricing of imported products and thereby protecting domestic industries and firms. For example, in 2016, in order to protect its domestic industry, India imposed 12.5% countervailing duty on Gold jewellery imports from ASEAN. {1 M}
- {1 M}

Answer:

- (c) (i) Sanitary and Phytosanitary (SPS) Measures: SPS measures are applied to protect human, animal or plant life from risks arising from additives, pests, contaminants, toxins or disease-causing organisms and to protect biodiversity. These include ban or prohibition of import of certain goods, all measures governing quality and hygienic requirements, production processes, and associated compliance assessments. For example; prohibition of import of poultry from countries affected by avian flu, meat and poultry processing standards to reduce pathogens, residue limits for pesticides in foods etc. {1^{1/2} M}
- (ii) Technical Barriers To Trade (TBT): Technical Barriers to Trade (TBT) which cover both food and non-food traded products refer to mandatory 'Standards and Technical Regulations' that define the specific characteristics that a product should have, such as its size, shape, design, labelling / marking / packaging, functionality or performance and production methods, excluding measures covered by the SPS Agreement. The specific procedures used to check whether a product is really conforming to these requirements (conformity assessment procedures e.g. testing, inspection and certification) are also covered in TBT. This involves compulsory quality, quantity and price control of goods before shipment from the exporting country. Just as SPS, TBT measures are standards-based measures that countries use to protect their consumers and preserve natural resources, but these can also be used effectively as obstacles to imports or to discriminate against imports and protect domestic products. Altering products and production processes to comply with the diverse requirements in export markets may be either impossible for the exporting country or would obviously raise costs hurting the competitiveness of the exporting country. Some examples of TBT are: food laws, quality standards, industrial standards, organic certification, eco-labeling, marketing and label requirements. {1^{1/2} M}

Answer:

- (d) Mercantilism, which was the policy of Europe's great powers, was based on the premise that national wealth and power are best served by increasing exports and collecting precious metals in return. Mercantilists also believed that the more gold and silver a country accumulates, the richer it becomes. Mercantilism advocated maximizing exports in order to bring in more "specie" (precious metals) and minimizing imports through the state imposing very high tariffs on foreign goods. This view argues that trade is a 'zero-sum game', with winners who win does so only at the expense of losers and one country's gain is equal to another country's loss, so that the net change in wealth or benefits among the participants is zero. The arguments put forth by mercantilists were later proved to have many shortcomings by later economists. Although it is still very important theory which explains policies followed by many big and fast growing economies in Asia. {1 M}
- {1 M}

Answer 9:

(a) The speculative motive reflects people's desire to hold cash in order to be equipped to exploit any attractive investment opportunity requiring cash expenditure. According to Keynes, people demand to hold money balances to take advantage of the future changes in the rate of interest, which is the same as future changes in bond prices. It is implicit in Keynes theory, that the 'rate of interest', i , is really the return on bonds. Keynes assumed that the expected return on money is zero, while the expected returns on bonds are of two types, namely:

- (i) the interest payment
- (ii) the expected rate of capital gain.

The market value of bonds and the market rate of interest are inversely related. A rise in the market rate of interest leads to a decrease in the market value of the bond, and vice versa. Investors have a relatively fixed conception of the 'normal' or 'critical' interest rate and compare the current rate of interest with such 'normal' or 'critical' rate of interest.

If wealth-holders consider that the current rate of interest is high compared to the 'normal or critical rate of interest', they expect a fall in the interest rate (rise in bond prices). At the high current rate of interest, they will convert their cash balances into bonds because:

- (i) they can earn high rate of return on bonds
- (ii) they expect capital gains resulting from a rise in bond prices consequent upon an expected fall in the market rate of interest in future.

Conversely, if the wealth-holders consider the current interest rate as low, compared to the 'normal or critical rate of interest', i.e., if they expect the rate of interest to rise in future (fall in bond prices), they would have an incentive to hold their wealth in the form of liquid cash rather than bonds because:

- (i) the loss suffered by way of interest income forgone is small,
- (ii) they can avoid the capital losses that would result from the anticipated increase in interest rates, and
- (iii) the return on money balances will be greater than the return on alternative assets
- (iv) If the interest rate does increase in future, the bond prices will fall and the idle cash balances held can be used to buy bonds at lower price and can thereby make a capital-gain.

{1^{1/2} M}{1^{1/2} M}**Answer:**

(b) We have been discussing so far about how fiscal policy acts as an effective tool for managing aggregate demand in the short-run to help maintain price stability and employment levels. However, demand-side policies unaccompanied by policies to stimulate aggregate supply cannot produce long-run economic growth. Fiscal policies such as those involving infrastructure spending generally have positive supply-side effects. When government supports building a modern infrastructure, the private sector is provided with the requisite overheads it needs. Government provision of public goods such as education, research and development etc. provide momentum for long-run economic growth. A well designed tax policy that rewards innovation and entrepreneurship, without discouraging incentives will promote private businesses who wish to invest and thereby help the economy grow.

{1 M}

{1 M}

Answer:

(c) Non-discretionary fiscal policy or automatic stabilizers are part of the structure of the economy and are 'built-in' fiscal mechanisms that operate automatically to reduce the expansions and contractions of the business cycle. Personal income taxes, corporate income taxes and transfer payments (unemployment compensation, welfare benefits) are prominent automatic stabilizers.

{1 M}

During recession incomes are reduced; with progressive tax structure, there will be a decline in the proportion of income that is taxed. This would result in lower tax payments as well as some tax refunds. Simultaneously, government expenditures increase due to increased transfer payments like unemployment benefits. These two together provide proportionately more disposable income available for consumption spending to households. In the absence of such automatic responses, household spending would tend to decrease more sharply and the economy would in all probability fall into a deeper recession. {1 M}

On the contrary, when an economy expands, employment increases, with progressive system of taxes people have to pay higher taxes as their income rises. This leaves them with lower disposable income and thus causes a decline in their consumption and therefore aggregate demand. Similarly, corporate profits tend to be higher during an expansionary phase attracting higher corporate tax payments. With higher income taxes, firms are left with lower surplus causing a decline in their consumption and investments and thus in the aggregate demand. Again, during expansion unemployment falls, therefore government expenditure by way of transfer payments falls and with lower government expenditure inflation gets controlled to a certain extent. {1 M}

Answer:

- (d) The key to internalizing an externality (both external costs and benefits) is to ensure that those who create the externalities include them while making decisions. One method of ensuring internalization of negative externalities is imposing pollution taxes. The size of the tax depends on the amount of pollution a firm produces. These taxes are named Pigouvian taxes after A.C. Pigou who argued that an externality cannot be alleviated by contractual negotiation between the affected parties and therefore taxation should be resorted to. These taxes, by 'making the polluter pay', seek to internalize external costs into the price of a product or activity. More precisely, the tax is placed on the externality itself (the amount of pollution emissions) rather than on output (say, amount of steel). {1 M}

Answers 10:

- (a) Adverse selection is a situation in which asymmetric information about quality eliminates high-quality goods from a market. It is a form of market failure which occurs when buyers have better information than sellers due to hidden information, and this can distort the usual market process. For example, in the insurance market adverse selection is the tendency for people with higher risk to obtain insurance coverage to a greater extent than persons with lesser risk because compared to insurance buyers, insurers know less about the health conditions of buyers and are therefore unable to differentiate between high-risk and low-risk persons. If the insurance company charges an average price, and only high-risk consumers buy insurance it will make losses. It is therefore possible that there will be higher overall premium as firms insure themselves against high-risk customers buying insurance. Then the low-risk customers may not want to buy insurance because it is quite expensive. Economic agents end up either selecting a sub-standard product or leaving the market altogether leading to a condition of 'missing market'. If the sellers wish to do business profitably, they may have to incur considerable costs in terms of time and money for identifying the extent of risk for different buyers. {2 M}

Answer:

- (b) Under floating exchange rate regime the equilibrium value of the exchange rate of a country's currency is market determined i.e. the demand for and supply of currency relative to other currencies determines the exchange rate. {2 M}

Answer:

- (c) Trade is distorted if quantities of commodities produced, bought, and sold and their prices are higher or lower than levels that would usually exist in a competitive market. For example, barriers to imports such as tariffs, domestic subsidies and quantitative restrictions can make agricultural products more costly in a market of a country. The higher prices will result in higher production of crop. Then export subsidies are needed to sell the surplus output in the world markets, where prices are low. Thus, the subsidising countries can be producing and exporting considerably more than what they normally would. {2 M}
- {1 M}

Answer:

- (d) Perfect information which implies that both buyers and sellers have complete information about anything that may influence their decision making is an important element of an efficient competitive market. Information failure occurs when lack of information can result in consumers and producers making decisions that do not maximize welfare. Information failure is widespread in numerous market exchanges due to complex nature of goods and services that are transacted, inaccurate and incomplete data, and non-availability of correct information. {1 M}
- {1 M}

Answer 11:

- (a) The principal objective of the WTO is to facilitate the flow of international trade smoothly, freely, fairly and predictably. To achieve this, the WTO endeavors:
- (i) to set and enforce rules for international trade,
 - (ii) to provide a forum for negotiating and monitoring further trade liberalization
 - (iii) to resolve trade disputes
 - (iv) to increase the transparency of decision-making processes
 - (v) to cooperate with other major international economic institutions involved in global economic management, and
 - (vi) to help developing countries benefit fully from the global trading system.
- When a country enjoys the best trade terms given by its trading partner it is said to enjoy the Most Favored Nation (MFN) status. Originally formulated as Article 1 of GATT, this principle of non discrimination states that any advantage, favour, privilege or immunity granted by any contracting party to any product originating in or destined for any other country shall be extended immediately and unconditionally to the like product originating or destined for the territories of all other contracting parties . Under the WTO agreements, countries cannot normally discriminate between their trading partners. If a country improves the benefits that it gives to one trading partner, (such as a lower a trade barrier, or opens up a market), it has to give the same best treatment to all the other WTO members too in respect of the same goods or services so that they all remain 'most-favoured'. As per the WTO agreements, each member treats all the other members equally as "most-favoured" trading partners. {2 M}
- {1 M}

Answer:

- (b) Foreign direct investment is defined as a process whereby the resident of one country (i.e. home country) acquires ownership of an asset in another country (i.e. the host country) and such movement of capital involves ownership, control as well as management of the asset in the host country. Direct investments are real investments in factories, assets, land, inventories etc. and have three components, viz., equity capital, reinvested earnings and other direct capital in the form of intra-company loans. Foreign direct investment also includes all subsequent investment transactions between the investor and the enterprise and among affiliated enterprises, both incorporated and unincorporated. FDI involves long term relationship and reflects a lasting interest and control. According to the IMF and OECD {1 M}

definitions, the acquisition of at least ten percent of the ordinary shares or voting power in a public or private enterprise by non-resident investors makes it eligible to be categorized as FDI. FDI may be categorized as horizontal, vertical, conglomerate and two-way direct foreign investments which are reciprocal investments.

Benefits of Foreign Direct Investment

Following are the benefits ascribed to foreign investments:

(i) Entry of foreign enterprises usually fosters competition and generates a competitive environment in the host country. The domestic enterprises are compelled to compete with the foreign enterprises operating in the domestic market. This results in positive outcomes in the form of cost-reducing and quality-improving innovations, higher efficiency and increasing variety of better products and services at lower prices ensuring wider choice and welfare for consumers.

(ii) International capital allows countries to finance more investment than can be supported by domestic savings resulting in higher productivity and enhanced output.

From the perspective of emerging and developing countries, FDI can accelerate growth and foster economic development by providing the much needed capital, technological know-how, management skills and marketing methods and critical human capital skills in the form of managers and technicians. The spill-over effects as the new technologies usually spread beyond the foreign corporations. In addition, the new technology can clearly enhance the recipient country's production possibilities.

{ 2 M }

Answer:

(c) A recession is said to occur when overall economic activity declines, or in other words, when the economy 'contracts'. A recession sets in with a period of declining real income, as measured by real GDP, simultaneously with a situation of rising unemployment. If an economy experiences a fall in aggregate demand during a recession, it is said to be in a demand-deficient recession. Economic depression is a condition of the economy resulting from an extended period of negative economic activity as measured by GDP. It is an extremely severe form of recession that leads to extended unemployment, increased credit defaults, extensive decline in output and income and a deflationary economy.

{ 1 M }

Taxation, though less effective compared to public expenditure, is a powerful instrument of fiscal policy in the hands of governments to combat recession and depression. Reduction in corporate and personal income taxation is a useful measure to overcome contractionary tendencies in the economy. A tax cut increases disposable incomes of households. Their inclination to spend a portion of the additional disposable income determined by their marginal propensity to consume and the multiplier effect of spending would set out a chain reaction of spending, increased incomes, and consequent increased output. Reduction in the rates of commodity taxes like excise duties, sales tax and import duty promote consumption and ultimately boost investments. Moreover, tax measures can provide incentives, or reduce disincentives, for firms and households to engage in investment and consumer spending.

{ 1 M }

Answer:

- (d) The money multiplier approach to money supply considers the ratio of deposit to reserve, $e = \{ER/D\}$ which represent the behaviour of commercial banks as one of the determinants of money supply. The commercial banks are required to keep only a part or fraction of their total deposits in the form of cash reserves. For the commercial banking system as a whole, the actual reserves ratio may be greater than the required reserve ratio since the banks keep with them a higher than the statutorily required percentage of their deposits in the form of cash reserves. The additional units of high- powered money that goes into 'excess reserves' of the commercial banks do not lead to any additional loans, and therefore, these excess reserves do not lead to creation of money. Therefore, if the central bank injects money into the banking system and these are held as excess reserves by the banking system, there will be no effect on deposits or currency and hence no effect on money multiplier and therefore on money supply. **{1 M}**
- {1 M}**
