(ALL CA INTERMEDIATE BATCHES)

DATE: 19.01.2021 **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)

Particulars	(Rs.)
Sales	24,00,000
Less: Variable cost	12,00,000
Contribution	12,00,000
Less: Fixed cost	10,00,000
EBIT	2,00,000
Less: Interest	1,00,000
EBT	1,00,000
Less: Tax (50%)	50,000
EAT	50,000
No. of equity shares	10,000
EPS	5

(1/2 M)

(a) Operating Leverage = $\frac{12,00,000}{2,00,000}$ = 6 times **(1/2 M)**

(b) Financial Leverage = $\frac{2,00,000}{1,00,000}$ = 2 times **(1 M)**

(c) Combined Leverage = OL × FL = 6 × 2 = 12 times. **(1 M)**

(d) R.O.I = $\frac{50,000}{10,00,000} \times 100 = 5\ \%$

Here ROI is calculated as ROE i.e. $\frac{\text{EAT - Pref.Dividend}}{\text{Equity shareholders' fund}}$ **(1 M)**

(e) Operating Leverage = 6

$6 = \frac{\Delta EBIT}{0.25}$

$\Delta EBIT = \frac{6 \times 1}{4} = 1.5$

Increase in EBIT = Rs. 2,00,000 × 1.5 = Rs. 3,00,000

New EBIT = 5,00,000

(1 M)

Answer:

(b) (a) Dividend yield on the equity shares

$$= \frac{\text{Dividend per share}}{\text{Market price per share}} \times 100 = \frac{\text{Rs.2 (= 0.20 × Rs.10)}}{\text{Rs.40}} \times 100 = 5 \text{ percent}$$ **(1 M)**

(b) Dividend coverage ratio

(i) Preference $= \frac{\text{Profit after taxes}}{\text{Dividend payable to preference shareholders}}$

$= \frac{\text{Rs.2,70,000}}{\text{Rs.27,000 (= 0.09 × Rs.3,00,000)}} = 10 \text{ times}$ **(1 M)**

(ii) Equity $= \frac{\text{Profit after taxes - Preference share dividend}}{\text{Dividend payable to equity shareholders at current rate of Rs. 2 per share}}$

$= \frac{\text{Rs. 2,70,000 - Rs. 27,000}}{\text{Rs.1,60,000 (80,000 shares × Rs. 2)}}$

$= 1.52 \text{ times}$ **(1 M)**

(c) Earnings per equity share

$= \frac{\text{Earnings available to equity shareholders}}{\text{Number of equity shares outstanding}}$

$= \frac{\text{Rs.2,43,000}}{80,000} = \text{Rs. 3.04 per share}$ **(1 M)**

(d) Price-earning (P/E) ratio $= \frac{\text{Market price per share}}{\text{Equity per share}} = \frac{\text{Rs.40}}{\text{Rs.3.04}} = 13.2 \text{ times}$ **(1 M)**

Answer:

(c)

	Company	
	M Ltd.	**N Ltd.**
EBIT (NOI)	Rs. 20,000	Rs. 20,000
Debt (D)	Rs. 1,00,000	---
K_e	11.50%	10%
K_d	7%	---

Value of equity (S) $= \frac{\text{NOI - Interest}}{\text{Cost of equity}}$

$S_M = \frac{20,000 - 7,000}{11.50\%} = \text{Rs. } 1,13,043$

$S_N = \frac{20,000}{10\%} = \text{Rs. } 2,00,000$

VM = 1,13,043 + 1,00,000 {V = S + D} = Rs. 2,13,043 **(1 M)**

VN = Rs. 2,00,000 **(1 M)**

Arbitrage Process

If you have 10% shares of M Ltd., your value of investment in equity shares is 10% of
Rs.1,13,043 i.e. Rs. 11,304.30 and return will be 10% of (Rs.20,000 – Rs.7,000) = Rs. 1,300.
Alternate Strategy will be:
Sell your 10% share of levered firm for Rs. 11,304.30 and borrow 10% of levered firms debt i.e. 10% of Rs. 1,00,000 and invest the money i.e. 10% in unlevered firms stock: Total resources /Money we have = Rs.11,304.30 + Rs.10,000 = Rs.21,304.3 and you invest
10% of Rs.2,00,000 = Rs. 20,000
Surplus cash available with you is = Rs.21,304.3 – Rs.20,000 = Rs. 1,304.3
Your return = 10% EBIT of unlevered firm – Interest to be paid on borrowed funds i.e. = 10% of Rs. 20,000 – 7% of Rs. 10,000 = Rs.2,000 – Rs.700 = Rs. 1,300
i.e. your return is same i.e. Rs. 1,300 which you are getting from N Ltd. before investing in M Ltd. but still you have Rs. 1,304.3 excess money available with you. Hence, you are better off by doing arbitrage **(3 M)**

Answer:

(d) Calculation of Indifference point between the two alternatives of financing.

Alternative-I By issue of 6,00,000 equity shares of Rs.10 each amounting to Rs.60 lakhs. No financial charges are involved.

Alternative-II By raising the funds in the following way:

Debt = Rs. 40 lakhs
Equity = Rs. 20 lakhs (2,00,000 equity shares of Rs.10 each)

Interest payable on debt = $40,00,000 \times \frac{18}{100}$ = Rs. 7,20,000 **(½ M)**

The difference point between the two alternatives is calculated by:

$$\frac{(EBIT - I_1)(1 - T)}{E_1} = \frac{(EBIT - I_2)(1 - T)}{E_2}$$

Where,

EBIT = Earnings before interest and taxes
I_1 = Interest charges in Alternative-I
I_2 = Interest charges in Alternative-II
T = Tax rate
E_1 = No. of Equity shares in Alternative-I
E_2 = No. of Equity shares in Alternative-II

(1½ M)

Putting the values, the break-even point would be as follows:

$$\frac{(EBIT - 0)(1 - 0.40)}{6,00,000} = \frac{(EBIT - 7,20,000)(1 - 0.40)}{2,00,000}$$

$$\frac{(EBIT)(0.60)}{6,00,000} = \frac{(EBIT - 7,20,000)(0.60)}{2,00,000}$$

$$\frac{(EBIT)(0.60)}{3} = \frac{(0.60)(EBIT - 7,20,000)}{1}$$

(2½ M)

EBIT = 3EBIT – 21,60,000

–2 EBIT = –21,60,000

EBIT = $\frac{21,60,000}{2}$

EBIT = Rs. 10,80,000

Therefore, at EBIT of Rs.10,80,000 earnings per share for the two alternatives is equal. **(½ M)**

Answer 2:

(a) (a) Cash cycle = 45 days + 75 days – 30 days = 90 days (3 months) **(1 M)**

Cash turnover = 12 months (360 days)/3 months (90 days) = 4. **(1 M)**

(b) Minimum operating cash = Total operating annual outlay/cash turnover, that is, Rs. 120 lakhs/4 = Rs. 30 lakhs. **(1 M)**

(c) Cash cycle = 45 days + 45 days – 30 days = 60 days (2 months).

Cash turnover = 12 months (360 days)/2 months (60 days) = 6.

Minimum operating cash = Rs. 120 lakhs/6 = Rs. 20 lakhs.

Reduction in investments = Rs. 30 lakhs – Rs. 20 lakhs = Rs. 10 lakhs.

Savings = 0.10 × Rs. 10 lakhs = Rs. 1 lakh. **(2 M)**

Answer:

(b) Navya Ltd.

(i) Walter's model is given by –

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

Where, P = Market price per share,

E = Earnings per share = Rs.20,00,000 ÷ 4,00,000 = Rs. 5

D = Dividend per share = 60% of 5 = Rs. 3

r = Return earned on investment = 15%

K_e = Cost of equity capital = 12% **(2 M)**

$$\therefore P = \frac{3+(5-3)\times\frac{0.15}{0.12}}{0.12} = \frac{3+2\times\frac{0.15}{0.12}}{0.12} = \text{Rs. } 45.83$$

(ii) According to Walter's model when the return on investment is more than the cost of equity capital, the price per share increases as the dividend pay-out ratio decreases. Hence, the optimum dividend pay-out ratio in this case is Nil. So, at a payout ratio of zero, the market value of the company's share will be:- **(2 M)**

$$\frac{0+(5-0)\times\frac{0.15}{0.12}}{0.12} = \text{Rs. } 52.08$$ **(1 M)**

Answer 3:
Working Notes:

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

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

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

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

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

$= R_f + ß(R_m - R_f)$

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

= 0.055 + (1.1875 x 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	1,471.575	0.1329	6.872	0.913
1.5 million x Rs. 981.05) 8.5% Term loans	500	0.0452	5.525	0.249
	11,069.725	1.000		13.455

}(4 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%

Cost of Debt (K_d):
for first Rs. 100 million = 9.5% x (1 - 0.35) = 6.175%
for next Rs. 50 million = 10% x (1 – 0.35) = 6.5%

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

= 0.136 + (0.008 + 0.004) = 0.148 or 14.8% **}(2 M)**

Answer 4:

Statement showing the requirements of Working Capital

Particulars	(Rs.)	(Rs.)
A. Current Assets:		
Inventory:		
Stock of Raw material (Rs. 96,600 × 2/12)	**(½ M)** 16,100	
Stock of Work-in-progress (As per Working Note)	**(½ M)** 16,350	
Stock of Finished goods (Rs. 1,46,500 × 10/100)	**(½ M)** 14,650	
Receivables (Debtors) (Rs. 1,27,080 × 2/12)	**(½ M)** 21,180	
Cash in Hand	**(½ M)** 8,000	
Prepaid Expenses:		
Wages & Mfg. Expenses (Rs. 66,250 × 1/12)	**(½ M)** 5,521	
Administrative expenses (Rs. 14,000 × 1/12)	**(½ M)** 1,167	
Selling & Distribution Expenses (Rs. 13,000 × 1/12)	**(½ M)** 1,083	
Advance taxes paid {(70% of Rs. 10,000)× 3/12}	**(½ M)** 1,750	
Gross Working Capital	85,801	85,801
B. Current Liabilities:		
Payables for Raw materials (Rs. 1,12,700 × 1.5/12)	**(½ M)** 14,088	
Provision for Taxation (Net of Advance Tax) (Rs. 10,000 × 30/100)	**(½ M)** 3,000	
Total Current Liabilities	17,088	17,088
C. Excess of CA over CL		68,713
Add: 10% for unforeseen contingencies		**(½ M)** 6,871
Net Working Capital requirements		**(½ M)** 75,584

Working Notes:

(i) Calculation of Stock of Work-in-progress

Particulars	(Rs.)	
Raw Material (Rs. 84,000 × 15%)	12,600	**(1 M)**
Wages & Mfg. Expenses (Rs.62,500 × 15% × 40%)	3,750	
Total	16,350	

(ii) Calculation of Stock of Finished Goods and Cost of Sales

Particulars	(Rs.)	
Direct material Cost [Rs. 84,000 + Rs. 12,600]	96,600	**(1½ M)**
Wages & Mfg. Expenses [Rs. 62,500 + Rs. 3,750]	66,250	
Depreciation	0	
Gross Factory Cost	1,62,850	
Less: Closing W.I.P	(16,350)	
Cost of goods produced	1,46,500	
Add: Administrative Expenses	14,000	
	1,60,500	
Less: Closing stock	14,650	
Cost of Goods Sold	1,45,850	
Add: Selling and Distribution Expenses	13,000	
Total Cash Cost of Sales	1,58,850	
Debtors (80% of cash cost of sales)	1,27,080	

(iii) Calculation of Credit Purchase

Particulars	(Rs.)
Raw material consumed	96,600
Add: Closing Stock	16,100
Less: Opening Stock	-
Purchases	1,12,700

(1M)

Answer 5:

Project Outflow Rs. 2,00,000

Year	**1**	**2**	**3**	**4**	**5**	
	Rs.	**Rs.**	**Rs.**	**Rs.**	**Rs.**	
Profit after depreciation but before tax	85,000	1,00,000	80,000	80,000	40,000	
Less: Tax (30%)	25,500	30,000	24,000	24,000	12,000	
PAT	59,500	70,000	56,000	56,000	28,000	Average = Rs. 53,900
Add: Dep.	40,000	40,000	40,000	40,000	40,000	
Net cash inflow	99,500	1,10,000	96,000	96,000	68,000	Average = Rs. 93,900

(2 M)

(i) Calculation of payback period

$= 1 + \frac{1,00,500}{1,10,000} = 1.914 \text{ years}$ **}(1 M)**

(ii) Calculation of ARR

Initial investment	2,00,000	1,60,000	1,20,000	80,000	40,000	
Depreciation	40,000	40,000	40,000	40,000	40,000	
Closing investment	1,60,000	1,20,000	80,000	40,000	0	
Average investment	1,80,000	1,40,000	1,00,000	60,000	20,000	Average=1,00,000

APR = Average of profit after tax / Average investment $= \frac{53,900}{1,00,000} = 53.90\%$ **}(2 M)**

(iii) Calculation of net present Value 10%

Net cash inflow	99,500.00 0.909	1,10,000.00 0.826	96,000.00 0.751	96,000.00 0.683	68,000.00 0.621	
Present value	90,445,50	90,860.00	72,096.00	65,568.00	42,228.00	3,61,197.50

Net present value = Rs. 3,61,197.50 – Rs. 2,00,000 = Rs. 1,61,197.50 **}(2 M)**

Net present value index $= \frac{\text{NPV}}{\text{PV of Cash Outflows}}$ = Rs. 1,61,197.50 / Rs. 2,00,000 = 0.81 **}(1 M)**

(iv) Calculation of IRR

Present value factor-Initial investment / Average annual cash inflow

2,00,000 / 93,900 = 2.13

It lies in between 38 % and 40%

Net Cash Inflows	99,500.00	1,10,000.00	96,000.00	96,000.00	68,000.00	
Present Value Factor @ 38%	0.725	0.525	0.381	0.276	0.200	
Present Value @ 38% (P1)	72137.50	57,750.00	36,576.00	26,496.00	13,600.00	Total = 2,06,559.50
Net Cash Inflows	99,500.00	1,10,000.00	96,000.00	96,000.00	68,000.00	
Present Value Factor @ 40%	0.714	0.510	0.364	0.260	0.186	
Present Value @ 40% (P2)	71,043	56,100	34,944	24,960	12,648	Total = 1,99,695

IRR is calculated by Interpolation:

IRR = LDR + (P1 – Q) / P1 – P2 (SDR – LDR)
= 38 + (2,06,559.50 – 2,00,000) / (2,06,559.50 – 1,99,695) × (40 – 38)
= 39.911137% = 39.91% **}(2 M)**

Answer 6:

(a) **Global Depository Receipts (GDRs):** These are negotiable certificate held in the bank of one country representing a specific number of shares of a stock traded on the exchange of another country. These financial instruments are used by companies to raise capital in either dollars or Euros. These are mainly traded in European countries and particularly in London. **(2½ M)**

Answer:

(b) **Indian Depository Receipts (IDRs):** The concept of the depository receipt mechanism which is used to raise funds in foreign currency has been applied in the Indian Capital Market through the issue of Indian Depository Receipts (IDRs). IDRs are similar to ADRs/GDRs in the sense that foreign companies can issue IDRs to raise funds from the Indian Capital Market in the same lines as an Indian company uses ADRs/GDRs to raise foreign capital. The IDRs are listed and traded in India in the same way as other Indian securities are traded. **(2½ M)**

Answer:

(c) **Meaning of Venture Capital Financing :** The venture capital financing refers to financing of new high risky venture promoted by qualified entrepreneurs who lack experience and funds to give shape to their ideas. In broad sense, under venture capital financing venture capitalist make investment to purchase equity or debt securities from inexperienced entrepreneurs who undertake highly risky ventures with a potential of success. **(2½ M)**

Answer:

(d) **Plain Vanilla Bond:**

- The issuer would pay the principal amount along with the interest rate. **}(½ M)**
- This type of bond would not have any options. **}(1 M)**
- This bond can be issued in the form of discounted bond or can be issued in the form of coupon bearing bond. **(1 M)**

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

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}**

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 **{1 M}**

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}**

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

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.

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 8:

(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 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. **{1 1/2 M}**

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 **{1 1/2 M}**

(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.

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 **{1 M}**

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}**

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. **{1 M}**

Personal income taxes, corporate income taxes and transfer payments (unemployment compensation, welfare benefits) are prominent automatic stabilizers.

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 **{1 M}**

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}**

Answer 9:

(a) 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:

(b) Dumping occurs when manufacturers sell goods in a foreign country below the sales prices in their domestic market or below their full average cost of the product. Dumping may be persistent, seasonal, or cyclical. Dumping may also be resorted to as a predatory pricing practice to drive out established domestic producers from the market and to establish monopoly position. Dumping is international price discrimination favouring buyers of exports, but in fact, the exporters deliberately forego money in order to harm the domestic producers of the importing country and to gain market share. This is an unfair trade practice and constitutes a threat to domestic producers. **{2 M}**

Anti-dumping measures consist of imposition of additional import duties to offset the effects of dumping. These measures are initiated as safeguards to offset the foreign firm's unfair price advantage. This is justified only if the domestic industry is seriously injured by import competition, and protection is in the national interest (that is, the associated costs to consumers would be less than the benefits that would accrue to producers). **{1 M}**

Answer:

(c) 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. 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 **{1 M}**

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:

(d) According to Keynes' theory of liquidity preference, speculative motive for holding cash is related to market interest. 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 **{1 M}**

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 M}**

Summing up, so long as the current rate of interest is higher than the critical rate of interest, a typical wealth-holder would hold in his asset portfolio only government bonds while if the current rate of interest is lower than the critical rate of interest, his asset portfolio would consist wholly of cash. When the current rate of interest is equal to the critical rate of interest, a wealth-holder is indifferent to holding either cash or bonds. The inference from the above is that the speculative demand for money and interest are inversely related.

Answer 10:

(a)

(i) The spot exchange rate between AUD and USD will not be affected as increased demand for foreign currency in each country will be matched by a proportionate increase in the supply of foreign exchange. **{1 M}**

(ii) Investors in Australia would demand more USD for making dollar denominated financial investments in the US. Supply of US dollars remaining the same, being in floating rate, AUD will depreciate and USD will appreciate. **{1 M}**

(iii) Large scale shift of Australian financial investments back to home due to political uncertainties in the US would result in large scale sale of financial assets and capital outflow from the US. This will lead to more inflow of US dollars to Australia and demand remaining the same, depreciation in the value of USD viz a viz AUD. **{2 M}**

(iv) Ban of exports to the US reduces USD inflows to Australia; demand for USD remaining the same, AUD may depreciate. **{1 M}**

Answer:

(b) In an open economy, the main advantages of a fixed rate regime are:

I. A fixed exchange rate avoids currency fluctuations and eliminates exchange rate risks and transaction costs that can impede international flow of trade and investments. A fixed exchange rate can thus greatly enhance international trade and investment.

II. A fixed exchange rate system imposes discipline on a country's monetary authority and therefore is more likely to generate lower levels of inflation. **{Any 3 Points, Each 1 Mark}**

III. The government can encourage greater trade and investment as stability encourages investment.
IV. Exchange rate peg can also enhance the credibility of the country's monetary- policy
V. However, in the fixed or managed floating (where the market forces are allowed to determine the exchange rate within a band) exchange rate regimes, the central bank is required to stand ready to intervene in the foreign exchange market and, also to maintain an adequate amount of foreign exchange reserves for this purpose.

Answer:

(c) Integration of the Indian economy with the rest of the world is evident not only in terms of higher level of FDI inflows but also in terms of increasing level of FDI outflows as overseas investments by the Indian entrepreneurs in joint ventures (JV) and wholly owned subsidiaries (WOS). Outbound investments from India have undergone substantial changes not only in terms of size but also in terms of geographical spread and sectoral composition. Outward Foreign Direct Investment (OFDI) from India stood at US$ 1.86 billion in the month of June, 2016. **{1 M}**

The overseas investments have been primarily driven by resource seeking, market seeking or technology seeking motives. Many Indian IT firms like Tata Consultancy Services, Infosys, WIPRO, and Satyam acquired global contracts and established overseas offices in developed economies to be close to their key clients. Of late, there has been a surge in resource seeking overseas investments by Indian companies, especially to acquire energy resources in Australia, Indonesia and Africa. Indian entrepreneurs are also choosing investment destinations in countries such as Mauritius, Singapore, British Virgin Islands, and the Netherlands on account of higher tax benefits they provide. **{1 M}**

At present, any Indian investor can make overseas direct investment in any bona-fide activity except in certain real estate activities. This has been made possible by progressive relaxation of the capital controls and simplification of procedures for outbound investments from India. For example, the annual overseas investment ceiling to establish joint ventures (JV) and wholly owned subsidiaries has been raised to US$ 125,000 from US$ 75,000. The RBI has also relaxed norms for foreign investment by Indian corporates by raising the borrowing limit.

Answer 11:

(a) (i) Value added by Firm A and Firm B

Gross Value Added (GVAMP) of Firm A = Gross value of output (GVOMP) of Firm A - Intermediate consumption of firm A

= (Sales by firm A + Change in stock of firm A) - (Purchases by firm A)

= [(ii) + (iv)] – (vii) = (1500 + 200) - 270

= 1430 Crores **{1 M}**

Gross Value Added (GVAMP) of Firm B = Gross value of output (GVOMP) of firm B -Intermediate consumption of firm B

= [Sales by firm B to general government + Sales by firm B to households + (Closing stock of firm B - Opening stock of firm B)] - Purchases by firm B

= [(300 + 1350) + (140 - 130)] - 300

= 1650 + 10 - 300 = **Rs. 1360 Crores** **{1 M}**

(ii) Gross Domestic product at Market Price:
= Value added by firm A + Value added by firm B = 1430+1360 **= Rs. 2790 Crores** **{1 M}**

(iii) Net Domestic Price at Factor Cost:
NDP_{FC} = Gross Domestic product at market price - Consumption of fixed capital – Indirect taxes paid by both the firms
= 2790 - (ix) - (viii) = 2790 - 720 – (375 -0) = **Rs. 1695 Crores** **{2 M}**

Answer:

(b) All the goods mentioned in the question can be classified as impure public good. There are many hybrid goods that possess some features of both public and private goods. These goods are called impure public goods and are partially rivalrous or congestible. Because of the possibility of congestion, the benefit that an individual gets from an impure public good depends on the number of users. Consumption of these goods by another person reduces, but does not eliminate, the benefits that other people receive from their consumption of the same good. Impure public goods also differ from pure public goods in that they are often excludable. **{2 M}**

Since free riding can be eliminated, the impure public good may be provided either by the market or by the government at a price or fee. If the consumption of a good can be excluded, then the market would provide a price mechanism for it. The provider of an impure public good may be able to control the degree of congestion either by regulating the number of people who may use it, or the frequency with which it may be used or both. **{1 M}**

Answer:

(c) Common access resources such as oceans tend to be over-consumed in an unregulated market because they are rivalrous and non-excludable in consumption. 'Tragedy of the commons' is a term to describe the problem which occurs when rivalrous but non-excludable goods are overused by individual users acting independently and rationally according to their own self-interest. In doing so, they behave contrary to the common good of all users by depleting a shared common resource to the disadvantage of the entire universe. **{1 M}** **{1 M}**

__**__