(ALL CA INTERMEDIATE BATCHES)

DATE: 19.10.2020 **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) (a) Existing market price share, P_0 = Rs. 100
Contemplated DPS, D_1 = Rs. 6
Rate of capitalization, K_e = .10
Market price as per MM approach is

$$P_0 = \frac{D_1 + P_1}{(1 + k_e)}$$

(i) If contemplated dividends are declared, then

$$\text{Rs. } 100 = \frac{6 + P_1}{1 + .10}$$

or, P_1 = Rs. 104 }{1/2 M}

(ii) If dividends are not declared, then

$$\text{Rs. } 100 = \frac{0 + P_1}{1 + .10}$$

or, P_1 = Rs. 110 }{1/2 M}

(b) Calculation of number of shares to be issued :

	Dividends Distributed	Dividends not distributed
Net income	Rs. 3,50,000	Rs. 3,50,000
Total dividends	1,50,000	--
Retained earnings	2,00,000	3,50,000
Investment budget	6,00,000	6,00,000
Amount to be raised by new issues	4,00,000	2,50,000
Relevant market price (Rs. Per share)	104	110
No. of new shares to be issued	{1 M}{ 3,846.15	{1 M}{ 2,272.7

(c) Total Market Value of Shares

	If Dividend Paid	If Dividend Not Paid
$nP_0 = \frac{(n + \Delta n)P_1 - I + E}{I + K_e}$	(25,000 + 3846.15) 104 − 6,00,000 + 3,50,000 / 1 + .1	(25,000 + 2272.7) 110 − 6,00,000 + 3,50,000 / 1 + .1
	{1 M}{ = 25,00,000	{1 M}{ = 25,00,000

Answer:

(b) The information regarding the operating leverage and financial leverage may be interpreted as follows : For Company A, the FL is 3:1 (i.e., EBIT:PBT) and it means that out of EBIT of 3, the PBT is 1 and the remaining 2 is the interest component. Or, in other words, the EBIT: Interest is 3:2. Similarly, for the operating leverage of 6:1 (i.e., Contribution:EBIT) for Company B, it means that out of Contribution of 6, the EBIT is 1 and the balance 5 is the fixed costs. In other words, the Fixed costs:EBIT is 5:1. This information may be used to draw the statement of sales and profit for all the three firms as follows :

Statement of operating profit and sales

Particular	A	B	C
Financial leverage = (EBIT/PBT)	3:1	4:1	2:1
or, EBIT/interest	3:2	4:3	2:1
Interest	Rs. 200	Rs. 300	Rs. 1,000
EBIT	200 x 3/2	300 x 4/3	1,000 x 2/1
	{1/4 M}{ =300	{1/4 M}{ =400	{1/4 M}{ =2,000
Operating leverage = (Cont./EBIT)	=5:1	6:1	2:1
i.e., Fixed Exp./EBIT	=4:1	5:1	1:1
Variable Exp. to sales	66.67%	75%	50%
contribution to sales	33.33%	25%	50%
Fixed costs	300 x 4/1	400 x 5/1	2,000 x 1/1
	{1/4 M}{ =1,200	{1/4 M}{ =2,000	{1/4 M}{ =2,000
Contribtution=(Fixed cost + EBIT)	{1/4 M}{ 1,500	{1/4 M}{ 2,400	{1/4 M}{ 4,000
sales	{1/4 M}{ 4,500	{1/4 M}{ 9,600	{1/4 M}{ 8,000

Income statement for the year ended 31.12.98

Particular	A	B	C
Sales	Rs. 4,500	Rs. 9,600	Rs. 8,000
Variable cost	3,000	7,200	4,000
Contribution	1,500	2,400	4,000
Fixed costs	1,200	2,000	2,000
EBIT	300	400	2,000
Interest	200	300	1,000
PBT	100	100	1,000
Tax at 50%	50	50	500
Profit after Tax (PAT)	50	50	500

{2 M}

Answer:

(c) In this case, the k_d and k_e of the firm are gien and changing. The firm may adopt that capital structure which has the least overall cost of capital or the maximum value. The overall cost of capital, k_o of the firm may be calculated by applying the Net Income Approach as follows :

= EBIT / Total market value

Particular	Plan I	Plan II	Plan III	Plan IV	Plan V	
EBIT	3,00,000	3,00,000	3,00,000	3,00,000	3,00,000	
-Interest	30,000	40,000	55,000	72,000	98,000	
Net profit	2,70,000	2,60,000	2,45,000	2,28,000	2,02,000	
K_e	0.120	0.125	0.135	0.150	0.180	
Mkt. value of Eq.	22,50,000	20,80,000	18,14,815	15,20,000	11,22,222	
Mkt. value of debt	3,00,000	4,00,000	5,00,000	6,00,000	7,00,000	
Total mkt. value	25,50,000	24,80,000	23,14,815	21,20,000	18,22,222	{1/2 M Each Plan}
Overall C/C $k_{0,}$	11.76%	12.10%	12.95%	14.15%	16.46%	{1/2 M Each Plan}

The capital structure (Plan I) having Rs. 3,00,000 of debt has the lowest cost of capital a consequently the highest market value, should be accepted.

Answer:

(d) Calculation of Indifference Point :

Current no. of shares	1 crore
Maket price	Rs. 50
Market Value of Equity	Rs. 50 crores
Current Debt	Rs. 9 crores
Current Interest (10%)	Rs. 90 lakhs
Proposed Debt-	Rs. 14 crores
Interest on Proposed Debt (10%)	Rs. 140 lakhs
Additional Debt	14-9=5 crore
Proposed no. of shares (1 crore – 10 lakhs)	90 lakh

{2 M}

Calculation of Indifference point = $\frac{(EBIT - 1_0)\ (1-t)}{N_0} = \frac{(EBIT - 1_1)\ (1-t)}{N_1}$

$$\frac{(EBIT - 90\ lakhs)\ (1-0.4)}{100\ lakhs} = \frac{(EBIT - 140\ lakhs)\ (1-0.4)}{90\ lakhs}$$

$$\frac{(EBIT - 90)\ (0.6)}{100} = \frac{(EBIT - 140)\ (0.6)}{90}$$

(90 EBIT – 8,100) 0.6 = (100 EBIT – 14,000) 0.6

EBIT = Rs. 590 lakhs **}{3 M}**

Answer 2:

Calculation of NPV @ 20% :

Year	PB Dep.	Dep.	PBT	PAT	CF	$PVF_{(20\%)}$	PV
1	Rs. 1,00,000	Rs. 66,667	Rs. 33,333	Rs. 16,667	Rs. 83,334	.833	Rs. 69,417
2	1,20,000	44,445	75,555	37,778	82,223	.694	57,062
3	1,20,000	29,630	90,370	45,185	74,815	.579	43,318
4	1,20,000	19,753	1,00,247	50,123	69,877	.482	33,681
5	60,000	13,169	46,831	23,416	36,585	.402	14,707
6	60,000	8,779	51,221	25,610	34,389	.335	11,520
7	60,000	5,853	54,147	27,074	32,927	.279	9,186
8	60,000	3,902	56,098	28,049	31,951	.233	7,444
9	60,000	2,601	57,399	28,700	31,301	.194	6,072
10	60,000	1,734	58,266	29,133	30,867	.162	5,000
10	Working capital released				35,000	.162	5,670
10	Scrap value of the plant				40,000	.162	6,480
	Present value of inflows						2,69,557

}{5 M}

(Note : Profit for the year 1 has been taken as Rs. 1,00,000 i.e., 1,20,000 – 20,000. The amount of advertisement expenses of Rs. 20,000 has been deducted to find out net cash inflow for that year.)

Present Value of Outflows :

Initial outflow	Rs. 2,00,000
Working Capital Required at T_o	20,000
Working Capital required at T_1 (Rs. 15,000 x .833)	12,495
	2,32,495

}{2 M}

NPV = PV of Inflows – PV of Outflows
= Rs. 2,69,557 – 2,32,495
= Rs. 37,062 }{2 M}

The proposal has a positive NPV and hence may be acceptable. }{1 M}

Answer 3:

(a) $k_e = \frac{D_1}{P_o} + g = \frac{Rs.2}{Rs.20} + .07 = 0.1 + .07 = .17$ or 17% }{1 M}

The cost of 8% debentures, after tax is 8 (1-5) = 4% }{1 M}

STATEMENT SHOWING WEIGHTED COST OF CAPITAL

	Existing Amt.	After = tax cost	Weights	Weighted
Equity share capital	Rs. 40,00,000	.17	.500	.0850
Preference share capital	10,00,000	.06	.125	.0075
Debentures	30,00,000	.04	.375	.0150
				.1075

}{2 M}

So, Weighted Average cost of capital (k_o) is 10.75%.

(b) $k_e = \frac{D_1}{P_o} + g = \frac{Rs.3}{Rs.15} + .07 = 0.20 + .07 = .27$ or 27% }{1 M}

The cost of capital of new debenture (after tax) is 10% (1.5) = 5%. }{1 M}

STATEMENT SHOWING WEIGHTED COST OF CAPITAL

	Amount	After - tax cost	Weights	Weighted cost
Equity share capital	Rs. 40,00,000	.27	.40	.108
6% Preference share capital	10,00,000	.06	.10	.006
8% Debentures	30,00,000	.04	.30	.012
10% Debentures	20,00,000	.05	.20	.010
				.136

}{2 M}

So, Weighted Average cost of capital (k_o) 13.60%.

(c) $k_e = \frac{D_1}{P_o} + g = \frac{Rs.3}{Rs.15} + .10 = 0.20 + .10 = .30$ or 30% }{1 M}

STATEMENT SHOWING WEIGHTED COST OF CAPITAL

	Amount	After - tax cost	Weights	Weighted cost
Equity share capital	Rs. 40,00,000	.30	.40	.120
6% Preference share capital	10,00,000	.06	.10	.006
8% Debentures	30,00,000	.04	.30	.012
10% Debentures	20,00,000	.05	.20	.010
				.148

}{1 M}

So, Weighted Average cost of capital (k_o) 14.80%.

Answer 4:

Material consumed	Rs. 6,75,000	
Wages	5,40,000	
Cash manufacturing expenses (Rs. 60,000 x 12)	7,20,000	
A. Cash manufacturing cost	19,35,000	
B. Cost of sales (cash cost only)		{2 M}
Cash manufacturing cost (as per 'A' above)	19,35,000	
Administrative expenses	1,80,000	
Sales promotion expenses	90,000	
	22,05,000	
C. Current liabilities		
Creditors for goods (1/6 of materials consumed)	1,12,500	{1/2 M}
Outstanding wages (1 month) (Rs. 5,40,000/12)	45,000	{1/2 M}
Cash manufacturing cost (outstanding one month)	60,000	{1/2 M}
Administrative expenses (outstanding one month)	15,000	{1/2 M}
	2,32,500	
D. Current assets		
Debtors (at cost of sales) (Rs. 22,05,000/12) x 2	3,67,500	{1 M}
Stock of raw materials (Rs. 6,75,000/12)	56,250	{1/2 M}
Finished stock (1/12 of Rs. 19,35,000)	1,61,250	{1/2 M}
Cash in hand-50% of current liabilities	1,16,250	{1/2 M}
Advanced payment of expenses (sales promotion)	22,500	{1/2 M}
Total current assets	7,23,750	
- Current liabilities	2,32,500	
Excess of current assets over current liabilities	4,91,250	{2 M}
+safely margin 15%	73,687	{1 M}
Working capital on cash cost basis	5,64,937	

It may be noted that Gross Profit ratio is given at 20%. So, the cost of production (inclusive of depreciation is 80%. For Sales of Rs. 27,00,000, the total cost of goods sold comes to Rs. 21,60,000 (i.e. 80% of 27,00,000). But the cash manufacturing cost is only Rs. 19,35,000. Therefore, depreciation would have been Rs. 2,25,000 (i.e. Rs. 21,60,000 – Rs. 19,35,000).

Answer 5:

Particulars	%	(Rs.)	
Share capital	50%	1,00,000	
Other shareholders funds	15%	30,000	{2 M}
5% Debentures	10%	20,000	
Payables	25%	50,000	
Total	100%	2,00,000	

Land and Buildings

Total liabilities = Total Assets

Rs. 2,00,000 = Total Assets

Fixed Assets = 60% of total fixed assets and current assets

= Rs. 2,00,000 x 60/100 = Rs. 1,20,000 {1/2 M}

Calculation of additions to Plant & Machinery

	Rs.	
Total fixed assets	1,20,000	{1 M}
Less: Land & Buildings	80,000	

Plant and Machinery (after providing depreciation)	40,000
Depreciation on Machinery up to 31-3-20X8	15,000
Add: Further depreciation	5,000
Total	20,000

Current assets = Total assets – Fixed assets
= Rs. 2,00,000 – Rs. 1,20,000 = Rs. 80,000 **}{1/2 M}**

Calculation of stock

Quick ratio = $\frac{\text{Current assets} - \text{stock}}{\text{Current liabilities}} = 1$

= $\frac{\text{Rs. 80,000} - \text{stock}}{\text{Rs. 50,000}} = 1$

Rs. 50,000 = Rs. 80,000 – Stock
Stock = Rs. 80,000 - Rs. 50,000
= Rs. 30,000 **}{1/2 M}**

Receivables = 4/5th of quick assets
= (Rs. 80,000 – 30,000) x 4/5
= Rs. 40,000 **}{1/2 M}**

Receivables turnover ratio

= $\frac{\text{Receivables}}{\text{Credit Sales}} \times 12 \text{ Months}$ = 2 months

= $\frac{40,000 \times 12}{\text{Credit Sales}}$ = 2 months

2 × credit sales = 4,80,000
Credit sales = 4,80,000/2
= Rs. 2,40,000 **}{1/2 M}**

Gross profit (15% of sales)
Rs. 2,40,000 x 15/100 = Rs. 36,000 **}{1/2 M}**

Return on net worth (net profit)

Net worth = Rs. 1,00,000 + Rs. 30,000
= Rs. 1,30,000
Net profit = Rs. 1,30,000 x 10/100 = Rs. 13,000 **}{1/2 M}**
Debenture interest = Rs. 20,000 x 5/100 = Rs. 1,000 **}{1/2 M}**

Projected profit and loss account for the year ended 31-3-2019

To cost of goods sold	2,04,000	By sales	2,40,000
To gross profit	36,000		
	2,40,000		2,40,000
To debenture interest	1,000	By gross profit	36,000
To administration and other expenses	22,000		
To net profit	13,000		
	36,000		36,000

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

Projected Balance Sheet as at 31st March, 2019

Liabilities	Rs.	Assets		Rs.
Share capital	1,00,000	Fixed assets		
Profit and loss A/c	30,000	Land & buildings		80,000
(17,000+13,000)		Plant & machinery	60,000	
5% Debentures	20,000	Less: Depreciation	20,000	40,000
Current liabilities		Current assets		
		Stock	30,000	
Trade creditors	50,000	Recivables	40,000	
		Bank	10,000	80,000
	2,00,000			2,00,000

{1 1/2 M}

Answer 6:

(i) "The profit maximisation is not an operationally feasible criterion." This statement is true because Profit maximisation can be a short-term objective for any organisation and cannot be its sole objective. Profit maximization fails to serve as an operational criterion for maximizing the owner's economic welfare. It fails to provide an operationally feasible measure for ranking alternative courses of action in terms of their economic efficiency. It suffers from the following limitations: {1 M}

(a) Vague term : The fefinition of the term profit is ambiguous. Does it mean short term or long term profit? Does it refer to profit before or after tax? Total profit or profit per share?

(b) Timing of Return : The profit maximization objective does not make distinction between returns received in different time periods. It gives no consideration to the time value of money, and values benefits received today and benefits received after a period as the same.

(c) It ignores the risk factor.

(d) The term maximization is also vague.

{1/2 M Each Point}

(ii) (a) Bridge Finance : Bridge finance refers, normally, to loans taken by the business, usually from commercial banks for a short period, pending disbursement of term loans by financial institutions. Normally it takes time for the financial institution to finalise procedures of creation of security, tie-up participation with other institutions etc. even though a positive appraisal of the project has been made. However, once the loans are approved in principle, firms in order not to lose further time in starting their projects arrange for bridge finance. Such temporary loan is normally repaid out of the proceeds of the principal term loans. It is secured by hypothecation of moveable assets, personal guarantees and demand promissory notes. Generally rate of interest on bridge finance is higher as compared with that on term loans. {2 M}

(b) Floating Rate Bonds : These are the bonds where the interest rate is not fixed and is allowed to float depending upon the market conditions. These are ideal instruments which can be resorted to by the issuers to hedge themselves against the volatility in the interest rates. They have become more popular as a money market instrument and have been successfully issued by financial institutions like IDBI, ICICI etc. {1 M}

(c) Packing Credit : Packing credit is an advance made available by banks to an exporter. Any exporter, having at hand a firm export order placed with him by his foreign buyer on an irrevocable letter of credit opened in his favour, can approach a bank for availing of packing credit. An advance so taken by an exporter is required to be liquidated within 180 days from the date of its commencement by negotiation of export bills or receipt of export proceeds in an approved manner. Thus Packing Credit is essentially a short-term advance. {1 M}

(iii) On one hand when cost of 'fixed cost fund' is less than the return on investment financial leverage will help to increase return on equity and EPS. The firm will also benefit from the saving of tax on interest on debts etc. However, when cost of debt will be more than the return it will affect return of equity and EPS unfavourably and as a result firm can be under financial distress. This is why financial leverage is known as "double edged sword". **{2 M}**

Effect on EPS and ROE :

When, ROI > Interest – Favourable – Advantage

When, ROI < Interest – Unfavourable – Disadvantage

When, ROI = Interest – Neutral – Neither advantage nor disadvantage. **{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 questions 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) There are two alternate theories in respect of determination of money supply. According to the first view, money supply is determined exogenously by the central bank. The second view holds that the money supply is determined endogenously by changes in the economic activities which affect people's desire to hold currency relative to deposits, rate of interest, etc. The current practice is to explain the determinants of money supply based on 'money multiplier approach' which focuses on the relation between the money stock and money supply in terms of the monetary base or high-powered money. This approach holds that total supply of nominal money in the economy is determined by the joint behaviour of the central bank, the commercial banks and the public. **{2 M}**

The money supply is defined as

$$M = m \times MB$$

Where M is the money supply, *m* is money multiplier and MB is the monetary base or high powered money. **{1 M}**

$$\text{Money Supply (m)} = \frac{Money\ Supply}{Monetary\ Base}$$

Money multiplier ***m*** is defined as a ratio that relates the change in the money supply to a given change in the monetary base. It denotes by how much the money supply will change for a given change in high-powered money. The multiplier indicates what multiple of the monetary base is transformed into money supply.

If some portion of the increase in high-powered money finds its way into currency, this portion does not undergo multiple deposit expansion. In other words, as a rule, an increase in the monetary base that goes into currency is not multiplied, whereas an increase in monetary base that goes into supporting deposits is multiplied. **{2 M}**

Answer:

(b) 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 conception of the 'normal' or 'critical' interest rate and compare the current rate of interest with such 'normal' or 'critical' rate of interest. **{1 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. **{1 M}**

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:

(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 8:

(a) Market failure is a situation in which the free market fails to allocate resources efficiently in the sense that there is either overproduction or underproduction of particular goods and services leading to less than optimal market outcomes. The reason for market failure lies in the fact that though perfectly competitive markets work efficiently, most often the prerequisites of competition are unlikely to be present in an economy. There are two aspects of market failures namely, demand-side market failures and supply side market failures. Demand-side market failures are said to occur when the demand curves do not take into account the full willingness of consumers to pay for a product. Supply-side market failures happen when supply curves do not incorporate the full cost of producing the product. **{1 M}**

There are four major reasons for market failure. They are: market power, externalities, public goods, and incomplete information.

(1) Excess market power or monopoly power causes the single producer or small number of producers to produce and sell less output than would be produced in a competitive market and to charge higher prices that give them positive economic profits. **{1 M}**

(2) Externalities, also referred to as 'spillover effects', 'neighbourhood effects' 'third - party effects' or 'side-effects', occur when the actions of either consumers or producers result in costs or benefits that do not reflect as part of the market price. Externalities cause market inefficiencies because they hinder the ability of market prices to convey accurate information about how much to produce and how much to buy. **{1 M}**

(3) Public goods (also referred to as a collective consumption good or a social good) are indivisible goods which all individuals enjoy in common and are non-excludable and non-rival in consumption. Each individual's consumption of such a good leads to no subtraction from any other individual's consumption and consumers cannot (at least at less than prohibitive cost) be excluded from consumption benefits of that good. Public goods do not conform to the settings of market exchange and left to the market, they will not be produced at all or will be under produced. **{1 M}**

(4) Incomplete information: The assumption of complete information which is a feature of competitive markets is not fully satisfied in real markets due to highly complex nature of products and services, inability of consumers to quickly / cheaply find sufficient information, inaccurate or incomplete data, ignorance, lack of alertness and uncertainty about true costs and benefits. Misallocation of scarce resources occurs due to information failure and equilibrium price and quantity is not established through price mechanism. Asymmetric information also referred to as the 'lemons problem' which occurs when there is an imbalance in information between buyer and seller i.e. when the buyer knows more than the seller or the seller knows more than the buyer also distort choices and cause market failure. Adverse selection, another source of market failure, is a situation in which asymmetric information about quality eliminates high- quality goods from a market. Moral hazard i.e. opportunism characterized by an informed person's taking advantage of a less-informed person through an unobserved action arises from lack of information about someone's future behavior also causes market failure. In short, asymmetric information, adverse selection and moral hazard affect the ability of markets to efficiently allocate resources and therefore lead to market failure because the party with better information has a competitive advantage. **{1 M}**

Answer:

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

Answer:

(c) Market Stabilization scheme (MSS), introduced in April 2004, is a monetary policy intervention by the RBI to withdraw excess liquidity (or money supply) by selling government securities in the economy. Under the Market Stabilization Scheme (MSS) the Government of India borrows from the RBI (such borrowing being additional to its normal borrowing requirements) and issues treasury-bills/dated securities that are utilized for absorbing from the market excess liquidity of a more enduring nature arising from large capital inflows. **{1 M}**

The bills/bonds issued under MSS would have all the attributes of the existing treasury bills and dated securities. The bills and securities will be issued by way of auctions to be conducted by the Reserve Bank. These bonds are issued by RBI on the behalf of Government in order to mop out excess liquidity from the market (Banks) and not for raising capital for government. **{1 M}**

Answer 9:

(a) (i) GDP_{MP}= C + I + G + (X – Z)
110 + 20 + (70 – 20) + (20 – 50) = 150 million **{1 M}**

(ii) GNP_{MP}= GDP at market prices + net property income from abroad **{1 M}**
150 + 10 = 160 million

(iii) GDP at factor cost = GDP market prices – indirect taxes **{1 M}**
150 – 30 = 120 million

(iv) Per Capita Income = $= \frac{GNP\,at\,Factor\,Cost}{Population} = (160m - 30m) \;/\; 0.5\;million$ **{2 M}**

= 130 / 0.5 = 260

Answer:

(b) National Income is defined as the net value of all economic goods and services produced within the domestic territory of a country in an accounting year plus the net factor income from abroad. According to the Central Statistical Organization (CSO) 'National income is the sum total of factor incomes generated by the normal residents of a country in the form of wages, rent, interest and profit in an accounting year'. **{1 M}**

National income may be measured at current prices or at constant prices. If goods and services produced in a year are valued at current prices, i.e., market price prevailing in the year in which goods and services are produced, we get national income at current prices or nominal national income. If goods and services produced in a year are valued at 'fixed' prices, i.e., prices that prevailed during a previous year chosen as base year, we get national income at constant prices or real national income. Thus GDP at constant prices is the value of domestic product in terms of constant prices of a chosen base year. A base year is a carefully chosen year which is a normal year free from price fluctuations. **{1 M}**

The GDP market prices is sensitive to changes in average price level. The same physical output will correspond to a different GDP level if the average level of market prices changes. That is, if prices rise, GDP measured at market prices will also rise without any real increase in physical output. This is misleading because it does not reflect changes in the actual volume of output. GDP at current prices makes no adjustment for inflation or deflation. GDP at constant prices is inflation /deflation corrected and can be used to measure true growth of GDP. For example, the GDP of 2015-16 may be expressed either at prices of that year or at prices that prevailed in 2011-12. In the former case, GDP will be affected by price changes, but in the latter case GDP will change only when there has been a change in physical output. Since real national income accurately reflects the real change in physical output of a country, it can be used to make a year to year comparison of changes in the volume of output of goods and services. **{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. **{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 10:

(a) Many developed and developing economies are facing the challenge of rising inequality in incomes and opportunities. Redistribution of income to ensure distributive justice is essentially a fiscal function. Fiscal policy is a chief instrument available for governments to influence income distribution and plays a significant role in reducing inequality and achieving equity and social justice. The distribution of income in the society is influenced by fiscal policy both directly and indirectly. While current disposable incomes of individuals and corporates are dependent on direct taxes, the potential for future earnings is indirectly influenced by the nation's fiscal policy choices. **{1 M}**

Government revenues and expenditure have traditionally been regarded as important instruments for carrying out desired redistribution of income. Each of these can be manipulated to achieve desired distributional effects.

- A progressive direct tax system appropriately designed to protect incentives ensures that those who have greater ability to pay contribute more towards defraying the expenses of government and that the tax burden is distributed fairly among the population.
- Indirect taxes can be differential: for example, the commodities which are primarily consumed by the richer income group, such as luxuries, are taxed heavily and the commodities the expenditure on which form a larger proportion of the income of the lower income group, such as necessities, are taxed light. Property taxes act both as a source of revenue and as an efficient redistributive instrument. **{2 M}**
- A carefully planned policy of public expenditure helps in redistributing income from the rich to the poorer sections of the society. This is done through spending programmes targeted on welfare measures for the disadvantaged, such as:
  - (i) poverty alleviation programmes
  - (ii) free or subsidized medical care, education, housing, essential commodities etc. to improve the quality of living of poor
  - (iii) infrastructure provision on a selective basis
  - (iv) various social security schemes and more efficient social transfers under which people are entitled to noncontributory, means-tested social pensions, conditional cash transfer programs, unemployment relief, sickness allowance etc. **{2 M}**
  - (v) subsidized production of products of mass consumption

(vi) public production and/ or grant of subsidies to ensure sufficient supply of essential goods, and
(vii) strengthening of human capital for enhancing employability etc.

The design of redistribution policies should justify both redistributive and efficiency objectives. Choice of a progressive tax system with high marginal taxes may act as a strong deterrent to work, save and invest. Therefore, the tax structure has to be carefully framed to mitigate possible adverse impacts on production and efficiency. Additionally, the redistributive fiscal policy and the extent of spending on redistribution should be consistent with the macroeconomic policy objectives, especially macroeconomic stability of the nation.

Answer:

(b) Changes in exchange rates portray depreciation or appreciation of one currency against another. The terms, `currency appreciation' and 'currency depreciation' describe the movements of the exchange rate. Currency appreciates when its value increases with respect to the value of another currency or a basket of other currencies. On the contrary, currency depreciates when its value falls with respect to the value of another currency or a basket of other currencies. If the Rupee dollar exchange rate changes from $1 = Rs., 65 to $1 = Rs. 68, the value of the Indian Rupee has diminished or Indian Rupee has depreciated and the US dollar has appreciated. On the contrary, home-currency appreciation or foreign- currency depreciation takes place when there is a decrease in the home currency price of foreign currency (or alternatively, an increase in the foreign currency price of home currency). The home currency thus becomes relatively more valuable. Under a floating rate system, if for any reason, the demand curve for foreign currency shifts to the right representing increased demand for foreign currency, and supply curve remains unchanged, then the exchange value of foreign currency rises and the domestic currency depreciates in value. **{1 M}**

Following are the impact of exchange rate changes on the real economy:

The developments in the foreign exchange markets affect the domestic economy both directly and indirectly. All else equal, an appreciation(depreciation) of a country's currency raises (decreases) the relative price of its exports and lowers (increases) the relative price of its imports leading to changes in import and export volumes and consequently on import spending and export revenue. Depreciation adversely affects importers as they have to pay more domestic currency on the same quantity of imports and benefits exporters as forex earnings will fetch more in terms of domestic currency.

For an economy where exports are significantly high, a depreciated currency would mean a lot of gain. Depreciation of domestic currency primarily decreases the relative price of domestically produced goods and diverts spending from foreign goods to domestic goods. Increased demand, both for domestic import-competing goods and for exports encourages economic activity and creates output expansion. Overall, the outcome of exchange rate depreciation is an expansionary impact on the economy at an aggregate level.

As a result of depreciation or devaluation, the terms of trade of the nation can rise, fall or remain unchanged, depending on whether price of exports rises by more than, less than or same percentages as price of imports. Depreciation also can have a positive impact on country's trade deficit as it makes imports more expensive for domestic consumers and exports cheaper for foreigners. However, the fiscal health of a country whose currency depreciates is likely to be affected with rising import payments and consequent rising current account deficit (CAD) and diminished growth **{1 M}**

prospects of overall economy.

Depreciation is also likely to fuel consumer price inflation, directly through its effect on prices of imported consumer goods and also due to increased demand for domestic goods. The impact will be greater if the composition of domestic consumption baskets consists more of imported goods. Indirectly, cost push inflation may result through possible escalation in the cost of imported components and intermediaries used in production.

When a country's currency depreciates, production of export goods and import substitutes becomes more profitable. Therefore, factors of production will be induced to move into the tradable goods sectors and out of the non-tradable goods sectors. By lowering export prices, currency depreciation helps increase the international competitiveness of domestic industries, increases the volume of exports, augments windfall profits in export oriented sectors and import-competing industries and promotes trade balance. If exports originate from labour-intensive industries, increased export prices will have spiraling effects on wages, employment and income. If inputs and components for manufacturing are mostly imported and cannot be domestically produced, increased import prices will increase firms' cost of production, push domestic prices up and decrease real output.

Foreign capital inflows are characteristically vulnerable to exchange rate fluctuations. Depreciating currency hits investor sentiments and has radical impact on patterns of international capital flows. Foreign investors are likely to be indecisive or highly cautious before investing in a country which has high exchange rate volatility. Foreign direct investment flows are likely to shrink and foreign portfolio investments are likely to flow into debt and equity. This may shoot up capital account deficits affecting the country's fiscal health. Reduced foreign investments also widen the gap between investments required for growth and actual investments. Over a period of time, unemployment is likely to mount in the economy.

If investor sentiments are such that they anticipate further depreciation, there may be large scale withdrawal of portfolio investments and huge redemptions through global exchange traded funds leading to further depreciation of domestic currency. This may result in a highly volatile domestic equity market affecting the confidence of domestic investors. **{1 M}**

Companies that have borrowed in foreign exchange through external commercial borrowings (ECBs) but have not sufficiently hedged against foreign exchange risks would also be negatively impacted as they would require more domestic currency to repay their loans. A depreciated domestic currency would also increase their debt burden and lower their profits and impact their balance sheets adversely. Exchange rate fluctuations make financial forecasting more difficult for firms and larger amounts will have to be earmarked for insuring against exchange rate risks through hedging.

Investors who have purchased a foreign asset, or the corporation which floats a foreign debt, will find themselves facing foreign exchange risk. However, remittances to homeland by non-residents and businesses abroad fetch more in terms of domestic currency.

In case of foreign currency denominated government debts, currency depreciation will increase the interest burden and cause strain to the exchequer for repaying and servicing foreign debt.

Depreciation would enhance government revenues from import related taxes, especially if the country imports more of essential goods. Depreciation would also result in higher amount of local currency for a given amount of foreign currency borrowings of government.

Answer:

(c) Common access resources or common pool resources are a special class of impure public goods which are non-excludable as people cannot be excluded from using them. These are rival in nature and their consumption lessens the benefits available for others. This rival nature of common resources is what distinguishes them from pure public goods, which exhibit both non-excludability and non-rivalry in consumption. They are generally available free of charge. Some important natural resources fall into this category. **{1 M}**

Since price mechanism does not apply to common resources, producers and consumers do not pay for these resources and therefore, they overuse them and cause their depletion and degradation. This creates threat to the sustainability of these resources and, therefore, the availability of common access resources for future generations.

Economists use the term 'tragedy of the commons' to describe the problem which occurs when rivalrous but non excludable goods are overused, to the disadvantage of the entire world. **{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.

{1/2 M for Each Point}

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}**

Answer:

(b) Cash Reserve Ratio (CRR) refers to the fraction of the total net demand and time liabilities (NDTL) of a scheduled commercial bank in India which it should maintain as cash deposit with the Reserve Bank. The RBI may set the ratio in keeping with the broad objective of maintaining monetary stability in the economy. The credit creation capacity of commercial banks is inversely related the cash reserve ratio. Higher the CRR, lower will be the credit creation and vice versa. **{2 M}**

CRR has, in recent years, assumed significance as one of the important quantitative tools aiding in liquidity management. Higher the CRR with the RBI, lower will be the liquidity in the system and vice versa. During deflation, the RBI reduces the CRR in order to enable the banks to expand credit and increase the supply of money available in the economy. In order to contain credit expansion during periods of inflation, the RBI increases the CRR. **{1 M}**

Answer:

(c) 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. **{1 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}**

__**__