

PROFESSIONAL PROGRAMME EXAMINATION

DECEMBER 2010

FINANCIAL, TREASURY AND FOREX MANAGEMENT

Time allowed : 3 hours

Maximum marks : 100

- NOTE :** 1. Answer FIVE questions including Question No.1 which is compulsory. All working notes should be shown distinctly.
2. Tables showing the present value of Re.1 and the present value of an annuity of Re.1 for 15 years are annexed.

Question 1

Comment on any four of the following :

- (i) *Dividend policy is strictly a financing decision and payment of cash dividend is a passive residual.*
- (ii) *Depository system functions very much like banking system.*
- (iii) *Accounting profit does not take into account all costs of capital invested in business.*
- (iv) *The mark-to-market process is lengthy for index futures.*
- (v) *Financial gearing is a fair weather friend.*

(5 marks each)

Answer 1(i)

Dividend policy is strictly a financing decision and payment of cash dividend is a passive residual

According to Ezra Solomon's Residual Theory of Dividend Policy, dividend policy is strictly a financing decision; the payment of cash dividend is a passive residual. The amount of dividend payout will fluctuate from period to period in keeping with fluctuations in the amount of acceptable investment opportunities available to the firm. If the opportunities are in plenty, percentage of payout is likely to be zero; on the other hand, if the firm is unable to find out profitable investment opportunities, payout will be 100 per cent. The theory implies that investors prefer to have the firm retain and reinvest earnings rather than pay them out in dividends if the return on re-invested earnings exceeds the rate of return the investors could themselves obtain on other investments of comparable risks.

Answer 1(ii)

Depository system functions very much like banking system

Yes, the Depository system functions very much like the banking system. A bank holds funds in accounts whereas a Depository holds securities in account for its clients. A bank transfers fund between accounts whereas a Depository transfers securities between accounts. In both the systems, the transfer of funds or securities happens without the actual handling of funds or securities. Both the Banks and the Depository are accountable for the safe keeping of funds and securities respectively.

Answer 1(iii)**Accounting profit does not take into account all costs of capital invested in business**

The conventional approach to measure profit will deduct cost of loan capital in arriving at profit; but there is no similar deduction for the cost of shareholders. Critics of the conventional approach point out that a business will not make a profit, in an economic sense, unless it covers the cost of all capital invested, including shareholders' funds.

Answer 1(iv)**The mark-to-market process is lengthy for index futures**

All open position in the index contracts are daily settled at the mark-to-market settlement price. The process of debit and credit by offsetting the transaction will continue till the final closure of the position. On the expiry, the settlement price is the spot index value as on expiry of any futures contract, the spot value and the futures value coverage. Mark-to-market settlement is made in cash.

Answer 1(v)**Financial gearing is a fair weather friend**

When the EBIT is more than sufficient to meet the fixed charges like interest on debentures and dividend on preference shares, financial leverage would result in higher EPS compared to an unlevered company. Thus, a higher degree of financial leverage would result in higher EPS. However, a high degree of leverage may prove to be working in just the opposite direction if the EBIT level is not sufficient to cover the fixed charges, i.e., interest and preference dividend and the financial leverage would result in lower EPS compared to an unlevered company. Financial leverage thus helps in increasing the EPS of company which has more than sufficient EBIT to cover the fixed charges.

Question 2

(a) *Following figures relate to Twinkle Ltd. :*

	<i>Rs.</i>
<i>Sales (at 3 months' credit)</i>	<i>45,00,000</i>
<i>Materials consumed (suppliers extend 1½ months credit)</i>	<i>11,25,000</i>
<i>Wages paid (1 month in arrear)</i>	<i>9,00,000</i>
<i>Manufacturing expenses outstanding at the end of the year (cash expenses are paid one month in arrear)</i>	<i>1,00,000</i>
<i>Total administration expenses for the year (cash expenses are paid one month in arrear)</i>	<i>3,00,000</i>
<i>Sales promotion expenses for the year (paid quarterly in advance)</i>	<i>6,00,000</i>

The company sells its product on gross profit margin of 25% assuming depreciation as a part of cost of production. It keeps 2 months' stock of finished goods and one month's stock of raw materials as inventory. It keeps cash balance of Rs. 1,25,000. Assume a safety margin of 5%.

Work out working capital requirements of the company on cash cost basis.
Ignore work-in-process. (12 marks)

- (b) Gel Corporation presently gives credit terms of 'net 30 days'. It has Rs.600 lakh in credit sales and its average collection period is 45 days. To stimulate sales, the company may give credit terms of 'net 60 days' with sales expected to increase by 15%. After the change, the average collection period is expected to be 75 days with no difference in payment habits between old and new customers. Variable costs are Re.0.80 for every Re. 1 of sales; and the company's before tax required rate of return on investment in receivables is 20%. Assume 360 days in a year. Should the company extend its credit period ? (8 marks)

Answer 2(a)

Statement showing working capital requirement of Twinkle Ltd.

(A) Current Assets :

		Rs.
(i) Raw materials (1 month)	$= \frac{\text{Rs. } 11,25,000 \times 1}{12}$	93,750
(ii) Finished goods (2 months)	$= \frac{\text{Rs. } 32,25,000 \times 2}{12}$	5,37,500
(iii) Debtors at cost (3 months)	$= \frac{\text{Rs. } 41,25,000 \times 3}{12}$	10,31,250
(iv) Cash balance		1,25,000
(v) Prepaid sales promotion expenses (3 months)	$= \frac{\text{Rs. } 6,00,000 \times 3}{12}$	1,50,000
Total current Assets..... (A)	=	<u>19,37,500</u>

(B) Current Liabilities :

(i) Creditors for goods (1.5 months)	$= \frac{\text{Rs. } 11,25,000 \times 1.5}{12}$	1,40,625
(ii) Wages (1 month)	$= \frac{\text{Rs. } 9,00,000 \times 1}{12}$	75,000
(iii) Manufacturing expenses (1 month)		1,00,000
(iv) Administration expenses (1 month)	$= \frac{\text{Rs. } 3,00,000 \times 1}{12}$	25,000
Total current liabilities(B)		<u>3,40,625</u>
Net working capital (A – B)		15,96,875
Add : 5% safety margin		79,844
Net working capital required		<u>16,76,719</u>

Working Notes :

(i) Calculation of depreciation for the year :		<i>Rs.</i>
Sales		45,00,000
Less : 25% Gross Profit on sales		<u>11,25,000</u>
Total Manufacturing cost		33,75,000
Less : Materials consumed	11,25,000	
Wages paid	<u>9,00,000</u>	<u>20,25,000</u>
Total Manufacturing Expenses (A)		13,50,000
Less : Cash manufacturing expenses (Rs. 1,00,000 x 12) (B)		<u>12,00,000</u>
Depreciation for the year (A – B)		<u>1,50,000</u>
(ii) Calculation of total cash cost for the year :		
Total manufacturing costs		33,75,000
Less : Depreciation		<u>1,50,00</u>
Cash manufacturing costs		<u>32,25,000</u>
Add : Administration expenses	3,00,000	
Sales promotion expenses	<u>6,00,000</u>	<u>9,00,000</u>
Total cash cost for the year		<u>41,25,000</u>

Answer 2(b)**Gel Corporation***Evaluation of proposal to extend credit period*

(a) Existing receivable turnover in times 360/45	8
(b) New receivable turnover in times 360/75	4.80
(c) Contribution on estimated additional sales of Rs.90 lakhs @20% (90 lakh x 20%)	Rs. 18 lakh
(d) Additional receivable [(6,90,00,000 ÷ 360) x 75] – [(6,00,00,000 ÷ 360) x 45] = [(1,43,75,000) – (75,00,000)]	Rs. 68,75,000
(e) Investment at cost of sales in additional receivables @ 80% (68,75,000 x 80/100)	Rs. 55 lakh
(f) Required rate of return before tax @20%	Rs. 11 lakh
(g) Increase in Profit (18 – 11)	Rs. 7 lakh

Recommendation : The Company should extend credit period to 'Net 60 days'

Question 3

- (a) *Sushmita Ltd. produces an electronic component with a selling price of Rs. 100. Fixed cost amounts to Rs.2 lakh. 5,000 Units are produced and sold each year. Annual profits amount to Rs.50,000. The company's all equity-financed assets are Rs.5 lakh.*

The company proposes to change its production process, adding Rs.4,00,000 to investment and Rs.50,000 to fixed operational costs. The consequences of such a proposal are —

- (i) *Reduction in variable costs per unit Rs. 10;*
- (ii) *Increase in output by 2,000 units; and*
- (iii) *Reduction in selling price per unit to Rs.95.*

Assuming an average cost of capital at 10%, examine the proposal and advise whether the company should make the change. Also, measure the degree of operating leverage and break-even point. (10 marks)

- (b) *You are given following information of Alpha Ltd. for the year ended 31st March, 2010 :*

	<i>Rs. in Thousands</i>
<i>Sales</i>	<i>1,05,000</i>
<i>Variable cost</i>	<i>76,700</i>
<i>Fixed cost Interest</i>	<i>7,500</i>
<i>Income-tax @ 30%.</i>	<i>11,000</i>

On the basis of above information, you are required to calculate and interpret operating, financial and combined leverages. (6 marks)

- (c) *Security-A offers an expected rate of return of 14% with a standard deviation of 8%. Security-B offers an expected rate of return of 11% with a standard deviation of 6%. If an investor wishes to construct a portfolio with a 12.8% expected return, what percentage of the portfolio will consist of Security-A ? (4 marks)*

Answer 3(a)**Statement showing Evaluation of Proposal regarding Sushmita Ltd.**

	<i>Present</i>	<i>New</i>
(1) Production & Sales (Units)	5000	7000
	<i>Rs.</i>	<i>Rs.</i>
(2) Selling price per unit	100	95
(3) Sales value	5,00,000	6,65,000
(4) Annual Profit	50,000	—
(5) Fixed costs	2,00,000	2,00,000
(6) Contribution (4 + 5)	2,50,000	—
(7) Variable costs (3 – 6)	2,50,000	—
(8) Variable costs per unit	50	40

(9) Additional fixed costs	—	50,000
(10) Total fixed costs (5 + 9)	2,00,000	2,50,000
(11) Contribution per unit (2 – 8)	50	55
(12) Contribution Rs.(5,000 x 50) & (7,000 x 55)	2,50,000	3,85,000
(13) Operating Profit (EBIT) (12 – 10)	50,000	1,35,000
(14) Additional Investment	—	4,00,000
(15) Cost of Capital 10%	—	40,000
(16) Profit before tax (13 – 15)	50,000	95,000

Decision : Since the proposal results into increased profits the company should accept the proposed changes

(17) Operating leverage (12 ÷ 13) = $\frac{\text{Contribution}}{\text{EBIT}} = 5.00$	2.8519
(18) Break even point (10 ÷ 11)	
$= \frac{\text{Total fixed costs including interest}}{\text{Contribution per unit}} = 4,000$	4,545

Answer 3(b)

Calculation of Earnings of Alpha Ltd.

	Rs.(in '000)
Sales	1,05,000
Less : Variable cost	76,700
Contribution	28,300
Less : Fixed cost	7,500
Earnings before interest & tax (EBIT)	20,800
Less : Interest	11,000
Earnings before tax (EBT)	9,800
Less : Income tax @ 30%	2,940
Earnings after tax (EAT)	6,860

Calculation of Leverages :

$$(i) \text{ Operating Leverage} = \frac{\text{Contribution}}{\text{EBIT}} = \frac{\text{Rs. } 28,300}{\text{Rs. } 20,800} = 1.36$$

Interpretation : Operating leverage shows that 1% change in sales revenue is expected to result in 1.36% change in EBIT.

$$(ii) \text{ Financial Leverage} = \frac{\text{EBIT}}{\text{EBT}} = \frac{\text{Rs. } 20,800}{\text{Rs. } 9,800} = 2.12$$

Interpretation : Financial leverage represents that 1% change in EBIT is expected to result in 2.12% change in net income of Alpha Ltd.

- (iii) *Combined Leverage* : Operating Leverage x Financial Leverage = $1.36 \times 2.12 = 2.88$

$$\text{Alternatively, } \frac{\text{contribution}}{\text{EBT}} = \frac{\text{Rs. 28,300}}{\text{Rs. 9,800}} = 2.88$$

Interpretation : The combined leverage of 2.88 means that 1% change in sales is expected to change Net Income by 2.88%.

Answer 3(c)

Expected Rate of Return of Security A : $E(R_A) = 14\%$

$$\sigma_A = 9\%$$

Expected Rate of Return of Security B : $E(R_B) = 11\%$

$$\sigma_B = 6\%$$

Expected Return of Portfolio $E(R_p) = 12.8\%$

Assume proportion of investment in security A = W_A

Investment in security B = $(1 - W_A)$

Expected return on a portfolio

$$E(R_p) = W_A E(R_A) + W_B E(R_B)$$

Where W_A & W_B are the respective weights of security A & B

$$12.8 = W_A \times 14 + (1 - W_A) \times 11$$

$$12.8 = 14W_A + 11 - 11W_A$$

$$1.8 = 3W_A$$

$$\therefore W_A = 0.6 = 60\%$$

Thus, investment in security A = 60%

Investment in security B = 40%.

Question 4

Distinguish between any four of the following :

- (i) 'Financial distress' and 'insolvency',
- (ii) 'Leasing' and 'hire-purchase'.
- (iii) 'Financial viability of a project' and 'commercial viability of a project'.
- (iv) 'Clearing mechanism' and 'settlement mechanism'.
- (v) 'Return on capital employed' and 'return on net worth'. (5 marks each)

Answer 4(i)

Financial distress and insolvency

Generally the affairs of a firm should be managed in such a way that the total risk-business as well as financial-borne by equity holders is minimized and is manageable, otherwise, the firm would obviously face difficulties. If cash inflow is inadequate the

firm will face difficulties in payment of interest and repayment of principal. If the situation continues long enough, a time will come when the firm would face pressure from creditors. Failure of sales can also cause difficulties in carrying out production operations. The firm would find itself in a tight spot. Investors would not invest further. Creditors would recall their loans. Capital market would heavily discount its securities. Thus, the firm would find itself in a situation called distress. It may have to sell its assets to discharge its obligations to outsiders at prices below their economic values i.e., resort to distress sale. So when the sale proceeds are inadequate to meet outside liabilities, the firm is said to have failed or become bankrupt or (after due processes of law are gone through) insolvent.

Answer 4(ii)**Leasing and hire-purchase**

In case of leasing, the asset is handed over by the lessor to the lessee in return for a lease rental. The ownership and the title to the assets remain with the lessor. The lessor, however, recovers the cost of the assets as well as a reasonable return in form of rental income. The lessor also gets the deduction in taxable income for the depreciation of the assets (though not using the assets). The lessee gets the opportunity for using the assets in its entirety without owning it. Further, the rental, paid by the lessee gets fully deducted from the taxable income of the lessee.

In case of hire-purchase, the seller hands over the assets to the buyer but the title to goods is not transferred. The buyer becomes the owner of the goods and acquires the title to the goods only when he makes the payments of all the installments. In case of default in payment by the buyer, the sellers can repossess the goods. The installments already paid by the buyer upto the date of repossession, in such a case, are treated as 'hire' towards using the assets by the buyer. The hire-purchaser shows the assets in his balance sheet and can claim depreciation from taxable income, although he may not be the owner at that time. The interest part of the installment can also be claimed as deduction from the taxable income.

Answer 4(iii)**Financial viability of a project and commercial viability of a project**

Financial Viability : A project is considered to be financially viable if the earnings are expected to be sufficient to meet the burden of servicing debt, to cover fixed charges, operating and maintenance costs, and, in addition, yield a reasonable return on the investment made. Profitability projections are made to judge the financial viability of the project.

The profitability projections are made taking into account the various concessions/ subsidies which may be available to the project and the tax burden associated with the project.

Broadly, assessment of financial viability of the project involves consideration of following aspects:

- (i) Cost of the Project.
- (ii) Financing Plans, Financial Collaboration arrangements and the terms there- for.

- (iii) Requirements of working capital.
- (iv) Projections of future profitability.
- (v) Projections of cash flow.
- (vi) Break-even and sensitivity analysis of the project.
- (vii) Assessment of financial rates of return, financial ratios, cost benefit analysis etc.
- (viii) Debt-equity Ratio.
- (ix) Promoters' contribution.

Commercial Viability : A project is considered to be commercially viable if it is able to market its products competitively in the domestic or international markets at a reasonable margin of profit. The appraisal takes into account the aggregate demand (projected) for the proposed product service and the expected share of the market the project expects to capture.

The commercial broadly involves market analysis to cover:

- Consumption trends in the past and present consumption level;
- Past and present supply position;
- Production possibilities and constraints;
- Cost structure;
- Imports and Exports;
- Structure of competition;
- Elasticity of Demand;
- Consumer behaviour, intention, motivation, attitudes, preferences and requirements;
- Distribution channel and marketing policies in use;
- Administrative, technical and legal constraints.

Answer 4(iv)

Clearing Mechanism and Settlement Mechanism

Clearing Mechanism

Clearing Corporation of Stock Exchange carries out clearing and settlement cycles of different sub-segments in the Equities segment. The clearing function of the clearing corporation is designed to work out (a) what counter parties owe and (b) what counter parties are due to receive on the settlement date.

Settlement Mechanism

Settlement is a two way process which involves legal transfer of title to funds and securities or other assets on the settlement date.

For administrative convenience, a stock exchange divides the year into a number of settlement periods so as to enable members to settle their trades. All transactions executed during the settlement period are settled at the end of the settlement period.

Answer 4(v)

Return on capital employed and Return on net worth

Return on Capital Employed : The profitability of the firm can also be analysed from the point of view of the total funds employed in the firm. The term funds employed or the capital employed refers to the total long term sources of funds. It means that the capital employed comprises of shareholders funds plus long term debts. Alternatively, it can also be defined as fixed assets plus net working capital.

RCE =

Return on net worth : The ROE examines profitability from the perspective of the equity investors by relating profits available for the equity shareholders with the book value of the equity investment. The return from the point of view of equity shareholders may be calculated by comparing the net profit less preference dividend with their total contribution in the firm.

$$\text{Return on Net Worth} = \frac{\text{PAT} - \text{Preference Dividend}}{\text{Equity Shareholders Funds or Net Worth}} \times 100$$

Question 5

India Inc.'s dependence on banks for funding appears to be showing decline. With the Reserve Bank of India blocking sub-benchmark prime lending rate route for cheap financing from banks, corporates are looking at non-bank alternatives.

Under the earlier below prime lending rate (BPLR) regime, while large corporates could borrow at low interest rates from banks, the small and medium enterprises (SMEs) and retail borrowers ended up paying high interest rates. The new lending regime is aimed at enhancing transparency in lending rates of banks.

Highly rated corporates are replacing their earlier short-term sub-BPLR loans, by taking recourse to the debt market to keep a lid on borrowing costs and have been able to raise resources around the base rate of banks. However, corporates may not be able to supplant bank finance with funds from the debt capital market. Funding could dry up from debt markets in case of a liquidity crisis in the financial system.

Although, a bit costly as compared to the debt markets, banks are a steady source of funds for corporates. A bank is unlikely to jeopardize its long-standing relationship with a corporate by choking off funds during a liquidity crisis.

Answer the following questions :

- (i) List and describe features of sources of finance other than banks and equity for corporates. (10 marks)*
- (ii) How is base rate system more expensive than prime lending rate for corporates? (5 marks)*
- (iii) How is bank finance superior to funding from debt market for corporates ? (5 marks)*

Answer 5(i)

Source of finance available other than banks and equity for raising funds by Corporates include the following :

(a) Deposits

Public deposits are a prominent source of finance to the companies. Salient features of deposits are as follows:

- (i) Funds are available at low cost;
- (ii) There is no need to provide security;
- (iii) Process is simple and no restrictive covenants are involved;
- (iv) Restrictions put by the RBI on financial institutions to advance, to prevent hoarding and black marketing leads to the companies accept deposits from the public;
- (v) Tax deductibility of interest paid on deposits.

(b) Debentures and Bonds

Debentures as a source of finance suit companies which have regular earnings to service the debt, have higher proportion of fixed assets in their assets structure which offers adequate security and motivate investors. The company has to ensure maintenance of prudent debt equity ratio. Importance of debentures and bonds in the capital structure due to the following features:

- (i) Debenture holders or suppliers of loan capital have no controlling interest in the company.
- (ii) Finance is available for a fixed period.
- (iii) It enhances the earnings of equity holders through the operation of financial leverage.
- (iv) It provides long term finance to company on easy and cheap term.
- (v) The cost of debt is lower than cost of equity or preference shares as interest is tax deductible.

(c) Mortgage Backed Securities

In Mortgage backed securities the issuer can generate cash from assets immediately enabling funds to be deployed in other projects. The assets to be securitized shall have the following features:

- (i) The cash flow generated from the assets should be received periodically in accordance with a pre-determined schedule.
- (ii) The assets should be large in number and total value to be issued in securitized form.
- (iii) The asset should be sufficiently similar in nature and total value to be issued in cash flows.
- (iv) The asset should be marketable.

(d) *Foreign Currency Convertible Bonds (FCCBs)*

A Foreign Currency Convertible Bond (FCCB) is a quasi debt instrument which is issued by any corporate entity, international agency or sovereign state to the investors all over the world.

Features:

- (i) FCCB are denominated in any freely convertible foreign currency.
- (ii) The FCCB by virtue of convertibility offers to issuer a privilege of lower interest cost than that of similar non convertible debt instrument.
- (iii) FCCB can be marketed conveniently and the issuer company expects that the number of its shares will not increase until investors see improved earnings and prices for its common stock.

Answer 5(ii)

The base rate system has, in a way, put an end to this practice of cross-subsidization. Banks, on the other hand, cannot lend below or at the base rate. They add risk and tenor premium to the base rate to lend to a corporate. The base rate is arrived at by taking into account cost of deposits/funds, the negative carry on the cash reserve ratio and statutory liquidity ratio, overhead costs, and average return on net worth.

Answer 5(iii)

A bank is unlikely to jeopardize its long-standing relationship with a corporate by choking off funds during a liquidity crisis. In sharp contrast, funding could dry up from debt markets in case of a liquidity crisis in the financial system.

Question 6

(a) *Sushant Ltd. has the following capital structure :*

	<i>Rs.</i>
<i>Equity shares</i>	<i>50,00,000</i>
<i>10% Preference shares</i>	<i>10,00,000</i>
<i>14% Debentures</i>	<i>20,00,000</i>
	<u><i>80,00,000</i></u>

Equity shares of the company are sold at Rs.25 per share in the market. It is expected that the company will pay next year a dividend of Rs.4 per share which will grow at 8% forever. Assume a tax-rate of 30%.

- (i) *Compute weighted average cost of capital based on the existing capital structure.*
- (ii) *Compute the new weighted average cost of capital, if the company raises an additional Rs.20,00,000 debt by issuing 15% debentures. This would increase the expected dividend to Rs.5 per share with dividend growth rate unchanged, but the price of share will fall to Rs. 20 per share.*

(12 marks)

- (b) A company is considering three methods of attracting customers to expand its business by undertaking — (A) advertising campaign; (B) display of neon signs; and (C) direct delivery service. The initial outlay for each alternative is as under:

A	Rs. 1,00,000
B	Rs. 1,50,000
C	Rs. 1,50,000

If A is carried out, but not B, it has an NPV of Rs. 1,25,000. If B is done, but not A, B has an NPV of Rs. 45,000. However, if both are done, then NPV is Rs. 2,00,000. The NPV of the delivery system C is Rs. 90,000. Its NPV is not dependent on whether A or B is adopted and the NPV of A or B does not depend on whether C is adopted.

Which of the investments should be made by the company if (i) firm has no budget constraint; and (ii) the budgeted amount is only Rs. 2,50,000 ?

(8 marks)

Answer 6(a)

(i) Weighted Average Cost of Capital (based on existing capital structure)

Source	Amount (Rs.)	After Tax Cost	Weights	Weight Average Cost
Equity Share Capital	50,00,000	0.24	.625	0.15
10% Preference Share Capital	10,00,000	0.10	.125	.0125
14% Debentures	20,00,000	0.098	.250	0.0245
	<u>80,00,000</u>		<u>1.000</u>	<u>0.187</u>

∴ Weighted average cost of Capital = 0.187 or 18.7%.

Working Notes :

$$(i) \text{ Cost of Equity} = \frac{\text{Rs. 4}}{\text{Rs. 25}} + g = 0.16 + 0.08 = 0.24 \text{ or } 24\%$$

(ii) Cost of 14% Debentures

$$\begin{aligned}
 &= 14\% (1 - \text{tax rate}) \\
 &= 14\% (1 - 0.30) \\
 &= 14\% \times 0.70 \\
 &= 9.8\%
 \end{aligned}$$

(ii) Weighted Average Cost of Capital (based on New capital structure)

<i>Source</i>	<i>Amount (Rs.)</i>	<i>After Tax Cost</i>	<i>Weights</i>	<i>Weight Average Cost</i>
Equity Share Capital	50,00,000	0.33	.50	0.165
10% Preference Share Capital	10,00,000	0.10	.10	.01
14% Debentures	20,00,000	0.098	.20	0.0196
15% Debentures	20,00,000	0.105	.20	0.021
	1,00,00,000		1.00	0.2156

∴ New Weighted average cost of Capital = 0.2156 or 21.56%.

Working Notes :

$$(i) \text{ Cost of Equity} = \frac{\text{Rs. } 5}{\text{Rs. } 20} + 0.08 = 0.33 \text{ or } 33\%$$

$$\begin{aligned}
 (ii) \text{ Cost of 15\% Debentures} &= (\text{Interest Rate} - \text{Tax}) \\
 &= 15\% (1 - 0.30) \\
 &= 15\% (0.70) \\
 &= 10.5\%
 \end{aligned}$$

Answer 6(b)**Calculation of expected NPVs**

<i>Mode of attracting customers</i>	<i>Initial Outlay (Rs.)</i>	<i>Expected NPV (Rs.)</i>
Advertisement Campaign (A)	1,00,000	1,25,000
Display of neon signs (B)	1,50,000	45,000
Direct delivery service (C)	1,50,000	90,000
(A) + (B) + (C)	4,00,000	2,90,000
(A) + (C)	2,50,000	2,15,000
(B) + (C)	3,00,000	1,35,000
(A) + (B)	2,50,000	2,00,000

(i) *No Budget Constraint* : The firm should adopt all the three modes of attracting customers. Its outlay in this case would be Rs.4,00,000 and the expected NVP would be Rs.2,90,000.

(ii) *Budget Constraint* : If the budget constraints are limited to Rs.2,50,000 then the

firm should adopt mode (A) and (C) only. In this case, the outlay would be Rs. 2,50,000 and the total NPV would be Rs.2,15,000.

Question 7

Write notes on any four of the following :

- (i) *Secured premium note*
- (ii) *Important motives to hold cash*
- (iii) *Domestic resource cost*
- (iv) *Purchasing power parity*
- (v) *Factoring.*

(5 marks each)

Answer 7(i)

Secured Premium Notes (SPN)

These instruments are issued with detachable warrants and are redeemable after a notified period say 4 to 7 years. The warrants enable the holder to get equity shares allotted provided the secured premium notes are fully paid. During the lock in period no interest is paid. The holder has an option to sell back the SPN to the company at par value after the lock in period. If the holder exercises this option, no interest/ premium is paid on redemption. In case the holder keeps it further, he is repaid the principal amount along with the additional interest/premium on redemption in installments as per the terms of issue. The conversion of detachable warrants into equity has to be done within the specified time.

Answer 7(ii)

Important motives to hold cash

Three important motives for holding cash are as under:

(a) *Transactional Motive*

This is the most essential motive for holding cash because cash is the medium through which all the transactions of the firm are carried out. These transactions are paid for from the cash pool or cash reservoir which is all the time being supplemented by inflows.

(b) *Speculative Motive*

Since cash is the most liquid current asset, it has the maximum potential of value addition to a firm's business. Therefore, efficient firms seek to deploy surplus cash in short term investments to get better returns. Since this deployment of cash needs to be done skillfully, not all the firms hold cash for speculative motive. Further the amount of cash held for speculative motive should not cause any strain upon the operating cycle.

(c) *Contingency Motive*

This motive of holding cash takes into account the element of uncertainty associated with any form of business. The uncertainty can result in prolongation

of the working capital operating cycle or even its disruption. It is possible that cost of raw materials or components might go up or the time taken for conversion of raw materials into finished goods might increase. For such contingencies, some amount of cash is kept by every firm.

Answer 7(iii)**Domestic Resource Cost**

DRC measures the resource cost of manufacturing a product as against the cost of importing/exporting it. It indicates the long-term comparative advantage a country enjoys in the production of a particular product.

The output from any project adds to domestic availability implying a notional reduction in imports to the extent of output of the project or an addition to exports if the product is being exported. This in turn implies that foreign exchange is saved to the extent there is reduced imports or foreign exchange is earned to the extent there is increased exports.

However, in the setting up of the project itself and in the manufacturing of the product, foreign exchange outflows may be incurred in order to procure machinery, raw materials etc. The foreign exchange saved or earned thus has to be adjusted for such outflow.

Answer 7(iv)**Purchasing Power Parity**

According to the Purchasing Power Parity (PPP) Principle, the currency of a country will depreciate vis-a-vis the currency of another country on the basis of differential in the rates of inflation between them. The rate of depreciation in the currency of a country would roughly be equal to the excess inflation rate in the country over the other country.

It maintains that free international trade equalizes prices of tradable goods in different countries. So, a product will sell for the same price in common currency in all countries. Different rates of changes in prices i.e. different inflation rates must eventually induce offsetting changes in exchange rates in order to restore approximate price equality.

Answer 7(v)**Factoring**

Factoring is a type of financial service which involves an outright sale of the receivables of a firm to a financial institution called the factor which specializes in the management of trade credit. Under a typical factoring arrangement, a factor collects the accounts on the due dates, effects payments to the firm on these dates (irrespective of whether the customers have paid or not) and also assumes the credit risks associated with the collection of the accounts. As such factoring is nothing but a substitute for in-house management of receivables. A factor not only enables a firm to get rid of the work involved in handling the credit and collection of receivables, but also in placing its sales in effect on cash basis.

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