

PROFESSIONAL PROGRAMME EXAMINATION

JUNE 2011

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 ₹ 1 and the present value of an annuity of 1 for 15 years are annexed.

Question 1

Comment on any four of the following :

- (i) A treasury manager has a significant role to play in the overall functioning of a firm.
- (ii) A firm's stock price is not related to its mix of debt and equity financing.
- (iii) Depreciation is a source of internal finance.
- (iv) A stable dividend policy is always preferable to fluctuating dividend policy.
- (v) Risk and uncertainty are quite inherent in capital budgeting decisions.

(5 marks each)

Answer 1(i)

The different roles of treasury manager are follows :

- 1. *Originating roles* : The treasury manager inducts and originates system of accounting for the firm. Routine accounting of the firm is then carried out along these established systems. The treasury manager compiles exhaustive operations manual for the guidance of the users.
- 2. *Supportive roles* : The treasury manager supports the activities of other departments based on constructive coordination.
- 3. *Leadership roles* : This role comes into play during times of exigency which can occur during time of systems break down.
- 4. *Watch dog roles* : Treasury manager is the eyes and ears of the management. As a processor of the financial transactions, he keeps a watch on suspects bungling and frauds in the firm.
- 5. *Learning roles* : Treasury manager continuously learns the new accounting concepts and technological changes and adopts these changes with open mind; educates other departments of firms about damages.

Answer 1(ii)

Theory of modern financial management – by Franco Modigliani and Merton Miller concluded that the value of a firm depends solely on its future earnings stream, and

hence its value is unaffected by its debt/equity mix. They concluded that a firm's value stems from its assets, regardless of how those assets are financed.

The theory was based on restrictive set of assumptions, including perfect capital markets (which implies zero taxes). They used an arbitrage proof to demonstrate that capital structure is irrelevant. If debt financing resulted in a higher value for the firm than equity financing, then investors who owned shares in a leveraged (debt-financed) firm could increase their income by selling those shares and using the proceeds, plus borrowed funds, to buy shares in an unleveraged (all equity-financed) firm. The simultaneous selling of shares in the leveraged firm and buying of shares in the unleveraged firm would drive the prices of the stocks to the point where the values of the two firms would be identical. Thus, according to MM Hypothesis, a firm's stock price is not related to its mix of debt and equity financing.

Answer 1(iii)

As regards depreciation, it is a deduction out of profits of the company calculated as per accounting rules on the basis of estimated life of the assets to an amount equal to original value of the assets. This results in reduction of taxable income and hence the firm has to pay lesser taxes. This brings funds to the firms. Usually, the entire amount deducted towards depreciation on fixed assets is not invested in the acquisition and replacement of fixed assets and is saved and utilised in business as working capital. This is also a temporary source of working capital so long as the acquisition of fixed assets is deferred.

But there exists a controversy whether depreciation should be taken as a source of internal funds. Whatever may be the outcome of such controversy, the fact remains that the depreciation is a sum that is set apart out of profits and retained within the business and finance the capital needs in the normal business routine, and as such depreciation in true academia sense be deemed as a source of internal finance.

Answer 1(iv)

A stable Dividend policy may lead to higher stock prices because it sustains investors confidence as they value more the dividend which are certain to be received. If dividends fluctuate investors may discount with some percentage probability factor i.e. the likelihood of receiving any particular amount of dividend. Failure to pay dividends in one year may shock the market price of share and remove the security from the approved list of the investments used by institutional investors.

The dividend policy has to be adapted to the nature and environments of the firm, industry and economy. If the company is operating in highly cyclical industry, like the machine tools industry, its management cannot create through regular dividends as stability does not exist. A low pay out in boom period cannot be off set by continuing dividends in prolonged period of large losses. It is better to relate dividends to earnings and not unduly attempt to protect shareholders from large fluctuations in earnings so inherent in business.

Answer 1(v)

Risk and uncertainty: Capital budgeting decision is surrounded by great number of uncertainties. Investment is present and investment is future. The future is uncertain

and full of risks. Longer the period of project, greater may be the risk and uncertainty. The estimates about cost, revenues and profits may not come true.

Risk and uncertainty are quite inherent in capital budgeting decisions. This is so because investment decisions and capital budgeting are actions of today which bear fruits in future which is unforeseen. Future is uncertain and involve risk. The projection of probability of cash inflows made today are not certain to be achieved in future. Seasonal fluctuations and business cycles both deliver heavy impact upon the cash inflows and outflows projected for different project proposals. The cost of capital which offers cut off rates may also be inflated or deflated under business cycle conditions.

Inflation and deflation are bound to effect the investment decisions in future period rendering the degree of uncertainty more reverse and enhancing the scope of risk. Technological developments are other factors that enhance the degree of risk and uncertainty by rendering plants and equipments obsolete and the project out of date. All these circumstances combined together affect capital budgeting decisions.

Question 2

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

	<i>in Lakhs</i>
Ordinary shares of 1 each	1,000
Retained earnings	160
8% Debentures	440
	1,600

In order to undertake a programme of expansion, the company requires to raise additional capital of 400 lakh and three alternative financing schemes are under consideration :

- (i) *A rights issue, at nominal value, of an additional 400 lakh 1 ordinary shares; or*
- (ii) *Issue, at nominal value, 400 lakh, 10% preference shares of 1; or*
- (iii) *Issue an additional 400 lakh of 8% debentures.*

Without the expansion programme, Indigo Ltd.'s estimated annual profit before interest and tax in the foreseeable future is 200 lakh. If the programme proceeds, this will rise to 280 lakh. At present, the market values of the company's securities are :

Ordinary shares	5.40 (ex-dividend) per share
Debentures	110 per 100 nominal

and the last ordinary dividend was 20 paise per share. If expansion does not take place, ordinary dividends are expected to grow at a constant rate of 2.5% per annum. After some initial fluctuations, the anticipated effect of expansion on dividends and market values is expected to stabilise as follows :

	<i>Expansion Financed by</i>		
	<i>Rights Issue</i>	<i>Preference Shares</i>	<i>Debentures</i>
<i>Market value of an ordinary share</i>	5.60	5.80	6.00
<i>Market value of debentures per 100 nominal</i>	110	110	108
<i>Market value of a preference share</i>	NA	1.14	NA
<i>Annual growth rate in ordinary shares</i>	3.5%	4.0%	5.0%

The company's profit is subject to corporation tax at 35% and this rate is unlikely to change. You are required to calculate for each alternative financing scheme:

- (i) the gearing ratio*
- (ii) the profit available per ordinary share*
- (iii) Weighted average cost of capital based on market value.*

Calculations may be restricted to two decimal places.

(14 marks)

- (b) Rani has invested in a share whose dividend is expected to grow at 15% for 5 years and thereafter at 5% till life of the company. Find out value of the share, if current dividend is and 4 investor's required rate of return is 6%.*

(6 marks)

Answer 2(a)(i)

Gearing ratio =

$$\begin{aligned} \text{Gearing ratio for the existing capital structure} &= \frac{\text{₹ 440 lakh}}{\text{₹ 1600 lakh}} \\ &= 0.275 \end{aligned}$$

If expansion programme funded by issuing ordinary shares

$$\frac{\text{₹ 440 lakhs}}{\text{₹ 1600 lakh} + \text{₹ 400 lakh}} = \frac{440}{2000} = 0.22$$

If either preference shares or debentures are used to finance

$$\frac{\text{₹ 440 lakh} + \text{400 lakh}}{\text{₹ 1600 lakh} + \text{Rs.400 lakh}} = \frac{840}{2000} = 0.42$$

Answer 2(a)(ii)

The following table gives profit available for ordinary shares under each capital structure :

<i>Particulars</i>	<i>Existing Capital Structure</i>	<i>Issue 400 lakh Ordinary Shares</i>	<i>Issue 400 lakh 10% preference shares</i>	<i>Issue ₹ 400 lakh of 8% debentures</i>
	()	()	()	()
Profit before interest and tax	2,00,00,000	2,80,00,000	2,80,00,000	2,80,00,000
Less Debenture interest	35,20,000	35,20,000	35,20,000	67,20,000
Taxable profit	1,64,80,000	2,44,80,000	2,44,80,000	2,12,80,000
Less Tax 35%	57,68,000	85,68,000	85,68,000	74,48,000
PAT	1,07,12,000	1,59,12,000	1,59,12,000	1,38,32,000
Less Preference Shares dividend	Nil	Nil	40,00,000	-
Profit available for ordinary shares	1,07,12,000	1,59,12,000	1,19,12,000	1,38,32,000
No. of ordinary shares	10,00,00,000	14,00,00,000	10,00,00,000	10,00,00,000
Profit per share	0.107	0.113	0.119	0.138

Answer 2(a)(iii)**Weighted average cost of capital based on Market Value**

The market value of Indigo Ltd. Existing capital is :

	<i>% in capital structure</i>
Market value of Ordinary shares (1,00,000,000 @ 5.40 (ex dividend) per share	540,000,000 91.77
Debentures @ 44,000,000 ÷ Rs. 100 @ 110	484,00,000 8.23
	588,400,000 100.00
If additional shares are issued this change to	
Ordinary shares (140,000,000 @ 5.60)	784,000,000 94.19
Debentures @ 44,000,000 ÷ 100 @ 110	48400000 5.81
	832400000 100
If preferential shares are issued	
Ordinary shares (1,00,000,000 @ 5.80	580000000 86.05
Debentures @ 44,000,000 ÷ 100 @ 110	48400000 7.18
Preference Shares (40,000,000 @ 1.14)	45600000 6.77
	674000000 100

	₹	% in capital structure
If additional debentures are issued :		
Ordinary shares (1,00,000,000 @ 6.00)	600,000,000	86.87
Debentures 84,000,000 ÷ 100 @ 108	90720000	13.13
	690720000	100.00

Cost of each element

Ordinary Shares =

Where d = dividend

g = growth rate

P_0 = price of the share

Preference Shares = d/P_0

Debentures = i / P_0

Inserting values relating to present capital structure

(i) If there is no expansion

$$\begin{aligned}
 \text{Ordinary shares} &= \frac{0.20(1 + 0.025)}{₹ 5.40} + 0.025 \\
 &= 0.037 + 0.025 \\
 &= 0.063 \\
 \text{Debentures} &= 8\% \times \frac{₹ 100}{₹ 110} \\
 &= 0.07
 \end{aligned}$$

$$\text{The WACC} = (91.77\% \times 0.063) + (8.23\% \times 0.07) = 5.78 + 0.58 = 6.36\%$$

(ii) If expansion is through issue of rights shares

For rights issue

$$\begin{aligned}
 \text{Ordinary shares} &= \frac{0.20(1 + 0.035) + 0.035}{₹ 5.60} = 0.07 \\
 \text{Debentures} &= \frac{8\% \times ₹ 100}{₹ 110} = 0.07
 \end{aligned}$$

$$\text{WACC} = 94.19 \times 0.07 + 5.81 \times 0.07 = 6.59 + .41 = 7\%$$

Therefore WACC is 7%

(iii) If expansion is through issue of preference shares

$$\text{Ordinary shares} = \quad + 0.04 = 0.08$$

Cost of capital of Debentures unchanged 0.07

$$\text{Preference shares} = \frac{10\% \times 1.00}{₹ 1.14} = 0.09$$

$$\text{WACC} = (86.05\% \times 0.08) + (7.18\% \times 0.07) + (6.77\% \times 0.09) = 7.93\%$$

If debentures are issued

$$\text{Ordinary shares} = \frac{0.20(1+0.05)}{₹ 6.00} + 0.05 = 0.09$$

$$= \frac{8\% \times ₹ 100}{₹ 108} = 0.07$$

$$\text{WACC} = (86.87\% \times 0.09) + (13.13\% \times 0.07) = 8.35\%$$

$$\frac{₹ 0.20 (1 + 0.04)}{₹ 5.80}$$

Answer 2(b)

Calculation of present value of dividend at 15% for 5 years

Year		<i>Dividend</i> $D_t = Do(1+g)^t$	<i>PVF@6%</i>	<i>Present Value</i>
1	$4(1+.15)^1$	4.6000	0.9434	4.3378
2	$4(1+.15)^2$	5.2900	0.8900	4.7081
3	$4(1+.15)^3$	6.0835	0.8396	5.1101
4	$4(1+.15)^4$	6.9960	0.7921	5.5408
5	$4(1+.15)^5$	8.0454	0.7473	6.0099
		31.0149		25.7067

Total dividends of ₹ 31.01 are expected in the next 5 years, which is NPV of 25.70 @ 6%.

The value of equity share at the end of the 6th year :

Dividend for 6th year

$$D_6 = D_5 (1+g)$$

$$= 8.0454 (1+0.05) = 8.4476$$

$$P_5 = D_6 / (k_e - g) = 8.4476 / (0.06 - 0.05) = 844.76$$

So the share price is 844.76

Present Value of this @ 6% = $844.76 \times .7473 = 631.28$

Value of share = present value of dividend + present value of expected price

= $25.71 + 631.28 = 656.99 = 657$

Question 3

- (a) *Peacock Ltd. has been engaged in manufacturing of textiles. It has a current sales of 30 lakh per annum. The cost of sales is 75% of sales and bad debts are 1% of sales. The cost of sales comprises 80% variable costs and 20% fixed cost, while the company's required rate of return is 12%. The company currently allows customers 30 days' credit, but is now considering increasing this to 60 days' credit in order to attract more customers.*

It has been estimated that this change in policy will increase sales by 15%, while bad debts will increase from 1% to 4%. It is expected that the policy change will not result in any increase in fixed costs, creditors and stock level.

Should Peacock Ltd. introduce proposed policy ? (10 marks)

- (b) *The following information is related to Evergreen Ltd :*

Unit cost	200
Order cost	320
Inventory carrying cost	40
Back order cost (stock out cost)	20
Annual demand	2,000 units

You are required to compute the following :

- (i) *Minimum cost order quantity*
- (ii) *Time between orders*
- (iii) *Minimum number of back orders*
- (iv) *Maximum inventory level*
- (v) *Overall annual cost.*

(2 marks each)

Answer 3(a)

Current Level of Sales = 30 Lakh

New Level of Sales will be

$30,00,000 \times 1.15 = 34,50,000$

Variable Costs = 80%

Variable costs are 80% of Cost of Sales $\times 75\% = 60\%$ of sales

Contribution from Sales = 40% of Sales		
Proposed Investment in debtors 34,50,000x 60/365		5,67,123
Current investment in debtors 30,00,000 x 30/365		2,46,575
Increase in investment in debtors		3,20,548
Increase in contribution = 15% x 30,00,000 x 40% (A)		1,80,000
New level of bad debts = 34,50,000 x 4%	1,38,000	
Current level of bad debts = 30,00,000 x 1%	30,000	
Increase in bad debts	(-) 1,08,000	
Additional financing costs = 3,20,548 x 12%....(B)	(-) 38,466	1,46,466
Saving by introducing change in policy (A – B)		33,534

The change in financing policy is financially acceptable although savings are not very substantial

Notes : Investment in Debtors has been taken at Selling Price.

$$\sqrt{\frac{2AD(B+C)}{C \quad B}}$$

Answer 3(b)

Here :

A = Annual demand = 2000 units

B = Back Order Cost = 20

C = Inventory Carrying Cost = 40

D = Order Cost = Rs.320

(i) Minimum cost order quantity

Q =

$$= \sqrt{\frac{2 \times 2000 \times 320(20+40)}{40 \quad 20}} = \sqrt{32000 \times 3}$$

$$= \sqrt{96000} = 309.83 \text{ OR } 310 \text{ Units}$$

(ii) Time between order :

$$\frac{\text{Minimum Cost Order Quantity}}{\text{Annual Demand}} = Q/A = 310/2000 = 0.155$$

0.155 year or $0.155 \times 12 = 1.86$ months

(iii) Minimum number of back orders :

Let back order may be = S

$$S = QC / B + C = 310 \times 40 / 20 + 40 = 12400/60 = 206.67 \text{ or } 207 \text{ units}$$

(iv) Maximum inventory level : $Q - S = 310 - 207 = 103$ units

(v) Overall annual cost : purchase cost = 2000 units @ ₹ 200 = $2000 \times 200 = 4,00,000$

Alternative solution

Purchase cost	200×2000	4,00,000
Order Cost	$2000/310 \times 320$	2064.51
Carrying cost	$103 \times 40 / 2$	2060
Total		404124.51

Question 4

Distinguish between any four of the following :

- (i) 'Current account' and 'capital account' in balance of payment.
- (ii) 'Foreign direct investment' and 'portfolio investment'.
- (iii) 'Ask price' and 'bid price'.
- (iv) 'Horizontal capital structure' and 'vertical capital structure'.
- (v) 'Investment' and 'speculation'. (5 marks each)

Answer 4(i)

The current account of the BOP comprises trade in goods and services. In other words, the current account balance takes into account exports, imports, and net foreign income from unilateral transfers. The capital account of the BOP, on the other hand, takes into account cross-border flow of funds that are associated with financial or other assets in the trading countries. For example, the direct and portfolio investments made by foreign investors, in India, are captured by the capital account balance of the BOP. The capital account also encompasses foreign investments of Indian companies, foreign aid and bank deposits of Non-resident Indians (NRI).

Answer 4(ii)

Foreign direct investment means investment by non-resident entity/person resident outside India in the capital of the Indian company under Schedule I of FEM (Transfer or Issue of Securities by a person Resident Outside India) Regulations 2000.

Portfolio investment mainly includes FIIs' investment, funds raised through GDRs/ ADRs by Indian companies and through offshore funds. Data on investment abroad, hitherto reported, have been split into equity capital and portfolio investment.

Answer 4(iii)

An ask price is the rate at which the market maker is ready to sell a particular

currency pair. This is the price that a trader is ready to receive in order to sell the currency. The bid/ask combination comprises a quotation, which is based on a floating exchange rate. The quotation lists the bid price first, then the ask price.

A bid price is the rate at which the market maker is prepared to buy a specific currency pair in the Forex trading market. This is the price that a trader will pay when buying a currency.

Answer 4(iv)

In a Horizontal capital structure, the firm has zero debt component in the structure mix. The structure is quite stable. Expansion of the firm takes in a lateral manner, i.e. through equity or retained earning only. The absence of debt results in the lack of financial leverage. Probability of disturbance of the structure is remote.

In a vertical capital structure, the base of the structure is formed by a small amount of equity share capital. This base serves as the foundation on which the super structure of preference share capital and debt is built. The incremental addition in the capital structure is almost entirely in the form of debt. Quantum of retained earnings is low and the dividend pay-out ratio is quite high. In such a structure, the cost of equity capital is usually higher than the cost of debt. The high component of debt in the capital structure increases the financial risk of the firm and renders the structure unstable. The firm, because of the relatively lesser component of equity capital, is vulnerable to hostile takeovers.

Answer 4(v)

Investment may be defined as a conscious act on the part of a person that involves deployment of money in securities issued by firms/companies with a view to obtain a target rate of return over a specified period of time.

Speculation also involves deployment of funds but it is not backed by a conscious analysis of pros and cons. Mostly it is a spur of the moment activity that is promoted and supported by half-baked information and rumours. Speculative deployment of funds is generally prevalent in the secondary equity market. What attracts people to speculation is a rate of return that is abnormally higher than the prevailing market rates. The balancing of risk and return nevertheless operates in speculative activity also and as such the risk element in speculation is very high.

Question 5

- (a) *Excel Ltd. is considering investing in a risky project which would be added to an existing portfolio of investment projects, also subject to risk. It envisages six possible states of the economy for which it has estimated probabilities and outcome as follows :*

<i>State of Economy</i>	<i>Probability</i>	<i>Return on Existing Portfolio</i>	<i>Return on Proposed Projects</i>
1	0.1	12%	8%
2	0.2	14%	10%
3	0.2	15%	12%
4	0.3	16%	10%
5	0.1	18%	14%
6	0.1	20%	6%

You are required to determine whether the project should be accepted. The risk-free rate of return is 6%. (10 marks)

(b) The following details of Alpha Ltd. for the year ended 2010 are furnished :

Financial leverage	2:1
Operating leverage	3:1
Interest charges per annum	20 lakh
Corporate tax rate	40%
Variable cost as percentage of sales	60%

Prepare income statement of the company. (6 marks)

(c) Mohan has a portfolio of 6 securities, each with a market value of 10,000. The current beta () of the portfolio is 1.30 and of the riskiest security is 1.80. Mohan wishes to reduce his portfolio to 1.15 by selling the riskiest security and replacing it with another security with a lower . What must be the of the replacement security ? (4 marks)

Answer 5(a)

Date of return	Probability	R x Pt	Ri x Pt	Rpt - Rpt (a)	Rpt - Ript (b)	$\bar{a}^2 p$	(a)(b)p
1	.1	12 (1.2)	8 (.8)	-3.6	- 2.2	1.296	+ .792
2	.2	14 (2.8)	10 (2.0)	-1.6	- 0.2	.512	+0.064
3	.2	15 (3.0)	12 (2.4)	-0.6	+1.8	.072	(-) .216
4	.3	16 (4.8)	10 (3.0)	+ 0.4	-0.2	.048	(-) .024
5	.1	18 (1.8)	14 (1.4)	+ 2.4	+3.8	.576	0.912
6	.1	20 (2.0)	06 (0.6)	+ 4.4	-4.2	1.936	(-)1.848
		15.6	—			4.440	+1.768
		Rpt =	Rpt =				- 2.088
		15.6	10.2				
							- .32

$$B = \quad = (-) .32/4.44 = (-) .072$$

Required rate of return is

$$R_{ft} + \beta R_p = 6 + (-.072 \times 9.6) \text{ [where } R_p = R_{pt} - R_f ; 15.6 - 6.0 = 9.6 \text{]}$$

$$= 6 - .691 = 5.309$$

The expected rate of return is 10.2%, therefore the project should be accepted.

Answer 5(b)**Income Statement of Alpha Ltd. (For the year ended 2010)**

<i>Particulars</i>	<i>(In lakhs)</i>
Sales	300
Less : Variable cost (60% of sales)	<u>180</u>
Contribution (WN-2)	120
Less : Fixed cost excluding interest	<u>80</u>
EBIT (WN-1)	40
Less : Interest	<u>20</u>
Profit Before Tax	20
Less : Corporate tax @ 40%	<u>8</u>
Profit After Tax	<u>12</u>

Working notes

(1) Financial leverage = 2:1

Financial leverage = EBIT/PBT

=

$$= \frac{\text{EBIT}}{\text{EBIT} - 20} = \frac{2}{1}$$

$$\text{EBIT} = 2(\text{EBIT} - 20)$$

$$\text{EBIT} = 2\text{EBIT} - 40$$

$$2\text{EBIT} - \text{EBIT} = 40$$

$$\text{EBIT} = ₹ 40 \text{ lakhs}$$

(2) Operating leverage = 3:1

$$\text{Operating leverage} = \frac{\text{Contribution}}{\text{EBIT}} = 3$$

$$= \frac{\text{Contribution}}{40} = 3/1$$

$$\text{Contribution} = 3 \times 40 = ₹ 120 \text{ Lakhs}$$

(3) Variable cost is 60% of sales

$$\text{Contribution} = 100 - 60 = 40\% \text{ of sales}$$

$$\text{Contribution} = 120 \text{ lakhs}$$

$$\text{Hence sales} = 100/40 \times 120$$

$$\text{Sales} = 300 \text{ lakhs}$$

$\frac{\text{Contribution}}{\text{EBIT}} = 1$
 Contribution = EBIT

Answer 5(c)

Beta of a portfolio = weighted average beta of the constituent securities = WiBi

The current beta of Mohan's Portfolio = 1.30

Market value of the total portfolio = ₹ 10,000 x 6 = 60,000

Weight of each security in the portfolio = 10,000/60,000 = 1/6

Sum of the betas of six securities = 1.30 x 6 = 7.80

The beta of the portfolio after replacement of security = 1.15

Sum of the new betas of six securities = 1.15 x 6 = 6.90

Since the riskiest security with a beta of 1.80 is replaced, it means.

Sum of beta of existing securities – beta of replacement security = new sum of securities

$$7.80 - 1.80 + X = 6.90$$

$$6 + X = 6.90$$

$$X = 6.90 - 6.0 = 0.90$$

Thus, the beta of the replacement security = 0.90

Question 6

Following information is extracted from the books of Perfume Ltd. at the end of financial year 2010-11 :

Net sales	20,00,000
Debt-assets ratio	0.6
Debtors turnover ratio based on net sales	2.0
Inventory turnover ratio	1.25
Fixed assets turnover ratio	0.80
Net profit margin	5%
Gross profit margin	25%
Return on investment	2%

Balance Sheet as at 31st March, 2011

Liabilities		Assets	
Equity	?	Net fixed assets	?
Long-term debts	?	Inventory	?
Short-term debts	10,00,000	Debtors	?
		Cash	?
	<u>?</u>		<u>?</u>
	<u><u> </u></u>		<u><u> </u></u>

Calculate —

- (i) The working capital available with the company on 31st March, 2011.
- (ii) Its permissible bank borrowings as per second method recommended by the Tandon Committee. (20 marks)

Answer 6

Working Notes

(a) Fixed Assets

$$\begin{aligned}\text{Fixed Assets} &= \text{Sales/Fixed Assets Turnover Ratio} \\ &= 20,00,000/0.80 = 25,00,000\end{aligned}$$

(b) Gross Profit

$$\begin{aligned}\text{Gross Profit Margin} &= \text{Gross Profit / net sale} \times 100 \\ 25\% &= \text{Gross Profit/ } 20,00,000 \\ \text{Gross Profit} &= 25\% \text{ of } 20,00,000 = 5,00,000\end{aligned}$$

(c) Inventory

$$\begin{aligned}\text{Inventory} &= \text{Cost of Sales/Inventory Turnover Ratio} \\ &= \text{Sales - Gross Profit / Inventory Turnover Ratio} \\ &= 20,00,000 - 5,00,000/1.25 \\ \text{Inventory} &= 12,00,000\end{aligned}$$

(d) Debtors

$$\begin{aligned}\text{Debtors} &= \text{Net Sales/Debtors Turnover Ratio based on Net Sales} \\ &= 20,00,000/2.0 \\ &= 10,00,000\end{aligned}$$

(e) Net Profit

$$\begin{aligned}\text{Net Profit Margin} &= \text{Net Profit / Net Sales} \times 100 \\ 5\% &= \text{net profit/ } 20,00,000 \\ \text{Net profit} &= 5\% \text{ of Rs. } 20,00,000 = 1,00,000\end{aligned}$$

(f) Investment

$$\begin{aligned}\text{Return Investment} &= \text{Net Profit / Investment} \times 100 \\ 2\% &= 1,00,000 / \text{Investment} \\ \text{Investment} &= 100/2 \times 1,00,000 = 50,00,000\end{aligned}$$

(g) Total debt

$$\begin{aligned}\text{Debt Assets Ratio} &= \text{Debts / Total Assets (Investments)} \\ 0.6 &= \text{debts/ } 50,00,000 \\ \text{Debts} &= 0.6 \times 50,00,000 = 30,00,000\end{aligned}$$

(h) Capital (Equity)

$$\begin{aligned}\text{Capital} &= \text{Total Assets} - \text{Total Debts} \\ &= 50,00,000 - 30,00,000 = 20,00,000\end{aligned}$$

(i) *Short term debts* 10,00,000

(j) *Long term debts*

Long Term Debts = Total Debts – Short Term Debts

$$= 30,00,000 - 10,00,000 = 20,00,000$$

Now on the basis of above information, we can prepare the balance sheet as at 31st March 2011 as under :

Balance sheet as at March 31st, 2011

<i>Liabilities</i>		<i>Assets</i>	
Equity	20,00,000	Net fixed assets	20,00,000
Long term debts	20,00,000	Inventory	12,00,000
Short term debts	10,00,000	Debtors	10,00,000
		Cash (balancing figure)	3,00,000
	<u>50,00,000</u>		<u>50,00,000</u>

(i) *Working capital as on March 31, 2011*

Working capital = current assets – current liabilities

= (inventory + debtors + cash) – short term debts

$$= 12,00,000 + 10,00,000 + 3,00,000 - 10,00,000$$

$$= 15,00,000$$

(ii) *Permissible bank borrowings as per second method recommended by Tondon Committee*

2nd method

= 0.75 (current assets) – (current liabilities)

$$= 0.75 \times 25,00,000 - 10,00,000$$

$$= 18,75,000 - 10,00,000$$

$$= 8,75,000$$

Question 7

Write notes on any four of the following :

(i) *Sweat equity shares*

(ii) *Benefits of depository system*

(iii) *Operating cycle*

(iv) *Risks in forex market*

(v) *Interest rate parity.*

(5 marks each)

Answer 7(i)**Sweat Equity Shares**

Sweat equity shares can be issued by the company to employees or directors at a discount or for consideration other than cash, for providing know how or making available rights in the nature of intellectual property rights or value additions.

Sweat equity shares are shares given to employees of company for the efforts & work they put in. These shares are given to the employees at a discounted rate of Market value. The motive behind giving sweat equity is to make the employee feel that he/she is a part owner in the company.

Sweat equity share is a instrument permitted to be issued by specified Indian companies, under Section 79A of Companies Act, 1956. According to this section a public company may issue sweat equity shares of a class of shares already issued if the following conditions are fulfilled:

- The issue of sweat equity share is authorised by a special resolution passed by the company in the general meeting.
- The resolution specifies the number of shares, current market price, consideration if any and the class or classes of directors or employees to whom such equity shares are to be issued.
- Not less than one year has elapsed at the date of the issue, since the date on which the company was entitled to commence business.
- The sweat equity shares of a company whose equity shares are listed on a recognised stock exchange are issued in accordance with the regulations made by SEBI in this regard.

All the limitations, restrictions and provisions relating to equity shares are also applicable to such sweat equity shares issued under the new Section 79A.

Answer 7(ii)**Benefits of depository system**

In the depository system, the ownership and transfer of securities takes place by means of electronic book entries. At the outset, this system rids the capital market of the dangers related to handling of paper. The system provides numerous direct and indirect benefits, like:

- Elimination of bad deliveries
- Elimination of all risks associated with physical certificates
- Immediate transfer and registration of securities
- Faster disbursement of non cash corporate benefits like rights, bonus, etc.
- Reduction in brokerage by many brokers for trading in dematerialised securities
- Reduction in handling of huge volumes of paper and periodic status reports

- Elimination of problems related to change of address of investor, transmission, etc.
- Elimination of problems related to selling securities on behalf of a minor.

Answer 7(iii)**Operating Cycle**

The operating cycle is the length of time between the company's outlay on raw materials, wages and other expenditures and the inflow of cash from the sale of the goods. In a manufacturing business, operating cycle is the average time that raw material remains in stock less the period of credit taken from suppliers, plus the time taken for producing the goods, plus the time the goods remain in finished inventory, plus the time taken by customers to pay for the goods. Operating cycle concept is important for management of cash and management of working capital because the longer the operating cycle the more financial resources the company needs. Therefore, the management has to remain cautious that the operating cycle should not become too long.

Answer 7(iv)**Risks in forex market**

Operations in the forex market are exposed to a number of risks. These risks are as under :

- (a) credit risk arising out of lending to a foreign borrower whose credit rating is not known for certainly
- (b) currency risk of trading in a currency whose stability and strength is known to fluctuate
- (c) country risk involved in dealing in the currency of a country whose political and economic stability is uncertain
- (d) solvency risk due to mismatch between current assets and liabilities of dealers and resultant default in meeting forward commitments.

Answer 7(v)

Interest Rate Parity: According to interest rate parity principle, the forward premium (or discount) on currency of a country vis-à-vis the currency of another country will be exactly offset by the interest rate differential between the countries. The currency of the country with lower interest rate is quoted at a forward premium and vice-versa. Two assumption central to interest rates parity are capital mobility & perfect substitutability of domestic and foreign assets. For example, the IPR condition implies that the expected return on dollar assets will equal the expected return on foreign currency assets, due to an equilibrium in foreign exchange market resulting from changes in the exchange rate between two countries.
