

PROFESSIONAL PROGRAMME EXAMINATION

DECEMBER 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) It is not always necessary that inventory is held for smooth manufacturing and sales operations.*
 - (ii) Capital rationing does not always lead to optimum results.*
 - (iii) Corporate taxation creates incentive for advancement to the company by utilising borrowed funds for financing its growth schemes.*
 - (iv) Financial gearing is a double-edged sword.*
 - (v) Financial policy and corporate strategy are most significant concerns of top management.*
- (5 Marks each)*

Answer 1(i)

The necessity of holding of inventory varies from firm to firm. The firm carrying large inventory may require huge investment involved in those goods but it takes the benefit from the fluctuation of prices and in scarcity of goods. The firm carrying a small level of inventory, on the other hand, face the problems in the situation when the goods are in scarce but take the advantage of storage cost and investment cost. Practically it is very difficult to manage the production system without inventory. Various companies follow various systems of holding Inventory such as Economic Order Quantity, JIT etc. with a view to minimize the total inventory cost as well to make availability of raw material in time.

Answer 1(ii)

A Firm may fix the maximum amount that can be invested in capital projects, during a given period of time. The firm then attempts to select a combination of investment proposals that will be within the specific limits providing maximum profitability and put them in descending order according to their rate of return. Capital rationing may result in accepting several small investment proposals than a few large investment proposals so that there may be full utilization of budgeted amount. This may result in accepting relatively less profitable investment proposals if full utilization of budget is a primary consideration. Similarly, capital rationing may also mean that the firm foregoes the next most profitable investment following after the budget ceiling even though it is estimated to yield a rate of

return much higher than the required rate of return. Thus capital rationing does not always lead to optimum results

Answer 1(iii)

The main advantage to carry the debt capital is that interest paid on debentures is deducted from the income. This deduction of interest from income results in reduction of cost of debt and thus induces companies to raise more capital through debentures. In other words it becomes financially advantageous for companies to launch expansion programmes on borrowed money rather than raising equity from public. Earning per share (EPS) increases with high presence of debt in debt- equity mix of a firm, as debt is less costly than equity. As a result, equity shareholders are benefited from enhancement of EPS as a result of increase in trading on equity. Thus, corporate taxation creates incentives for advancement to the company by utilizing borrowed for financing its growth schemes.

Answer 1(iv)

A highly geared company is one where there is a high proportion of debt to equity, and can be considered a risky investment as there is a higher likelihood of the company being unable to pay its large debts. High financial gearing will increase the earnings per share of a company if earnings before interest and taxes are rising, as compared to the earning per share of a company with low or no financial gearing. So at times when the economy is doing well, shares of highly geared company perform better than the shares of a low geared company. However, if the company is not doing well, when its profits before interest and taxes are falling, the earnings per share of highly geared company will fall faster than those of low geared company

Answer 1(v)

Financial policy making is the backbone of business and very significant to top management and helps the management to form corporate strategy. It helps in defining the feasible area of operation for all types of activities and thereby defines the overall framework. Financial policy comprises of three components (a) Financial resource (b) Financial tools (c) Financial goals. Management need to ensure that enough funding is available at the right time to meet the needs of the business. Hence, making of financial policy in taking three important decision of business viz. Financing, Investing and Dividend are always helpful to the management to take key corporate decision like expansion, diversification etc.

Question 2

(a) *Ash Enterprises Ltd. generated the following forecast in real terms for a capital budgeting project :*

	Year-0 (₹ in '000)	Year-1 (₹ in '000)	Year-2 (₹ in '000)
<i>Capital expenditure</i>	1,210	—	—
<i>Revenue</i>	—	1,900	2,000
<i>Cash expenses</i>	—	950	1,000
<i>Depreciation</i>	—	605	605

Ash, the President estimates the inflation to be 10% per year over the next two years. In addition, Ash believes that the cash flows of the project should be discounted at the nominal rate of 15.50%.

Required (Apply tax rate of 30%) —

- (i) Workout NPV based on normal cash flow technique.
- (ii) Workout NPV based on real cash flow technique. (10 marks)
- (b) Prakash Motors Pvt. Ltd. purchases 9,000 spare parts for its annual requirements ordering one month usage at a time. Each spare part costs ₹20. The ordering cost per order is ₹15 and the carrying charges are 15% of unit cost. You have been asked to suggest the most economical purchasing policy for the company. What advice would you offer and how much would it save for the company per year ? (5 marks)
- (c) Following are the details regarding operations of Radiance Enterprises Ltd. during a period of last 12 months :

	₹
Sales	12,00,000
Selling price (per unit)	10
Variable cost (per unit)	7
Total cost (per unit)	9

Credit period allowed to customers is one month.

The company is considering a proposal for a more liberal credit by increasing the average collection period from one month to two months. This relaxation is expected to increase sales by 25%. You are asked to advise the company regarding adoption of new credit policy assuming that the company's required rate of return on investment is 30%. (5 marks)

Answer 2(a)(i)

Year	Cash Inflow	Effect of Inflation on cash flow (a)	Cash expenses (effect of Inflation) (b)	Depreciation (c)	Net cash flow before tax a-b-c	Cash flow after tax @ 30 % (d)	Cash flow after tax but before depreciation e=d+c	PV rate 15.5% (f)	Net cash Inflow e*f
1	1900	2090	1045	605	440	308	913	0.865	789.74
2	2000	2200	1100	605	495	346	951	0.749	712.29
Total									1512.03

$$\begin{aligned}
 \text{NPV} &= \text{Cash inflow} - \text{Cash outflow} \\
 &= 1512.03 - 1210 \\
 &= 302.03
 \end{aligned}$$

Answer 2(a)(ii)**NPV based on Real cash flow technique**

<i>Year</i>	<i>Cash Inflow (a)</i>	<i>Cash expenses (b)</i>	<i>Depre- ciation (c)</i>	<i>Net cash flow before tax a-b-c</i>	<i>Cash flow after tax @ 30% (d)</i>	<i>Cash flow after tax but before deprecia- e=d+c</i>	<i>PV rate 15.5% (f)</i>	<i>Net cash e*f</i>
1	1900	950	605	345	241	846	0.865	731.79
2	2000	1000	605	395	276	881	0.749	659.86
<i>Total</i>								1391.65

$$\begin{aligned}
 \text{NPV} &= \text{Cash inflow} - \text{Cash outflow} \\
 &= 1391.65 - 1210 \\
 &= 181.65
 \end{aligned}$$

Answer 2(b)

According to current policy:

$$\begin{aligned}
 \text{Number of spare parts per purchase order} &= \text{Annual usage} / 12 \text{ months} \\
 &= 9000 / 12 = 750 \text{ units}
 \end{aligned}$$

$$\begin{aligned}
 \text{Total variable cost} &= \text{Ordering cost} + \text{Carrying cost} \\
 &(\text{Ordering cost} = \text{No. of order} \times \text{ordering cost per order}) \\
 &= 12 \times \text{Rs. } 15 + 750 / 2 \times 15\% \text{ of Rs. } 20 \\
 &= ₹ 180 + \text{Rs. } 1125 = ₹ 1305
 \end{aligned}$$

According to EOQ

$$\begin{aligned}
 \text{EOQ} &= \\
 &= \sqrt{\frac{2 \times 9000 \times \text{Rs. } 15}{15\% \text{ of Rs. } 20}} \\
 &= 300 \text{ units}
 \end{aligned}$$

Where,

A = Annual requirement

B = Ordering cost

C = Carrying cost per unit

$$\begin{aligned}
 \text{Total variable cost} &= \text{Ordering cost} + \text{Carrying cost} \\
 &= 9000 / 300 \times ₹ 15 + 300 / 2 \times ₹ 3 \\
 &= ₹ 450 + ₹ 450 \\
 &= ₹ 900
 \end{aligned}$$

Total variable cost under EOQ policy is less than the current policy. Therefore, the company should follow the EOQ policy.

Savings in terms of cost according to ordering policy as per EOQ will be:

Cost as per current policy – Cost as per EOQ

$$₹ 1305 - ₹ 900 = ₹ 405$$

Answer 2(c)

Present cost of Sales (₹ 12,00,000 / ₹ 10)		
= (1,20,000 units x ₹ 9)	= ₹	10,80,000
Cost of additional sales [30,000 units x ₹ 7 (Variable cost only)]	= ₹	2,10,000
Total cost of sales	= ₹	12,90,000
New average cost per unit = ₹ 12,90,000 / 1,50,000 units	= ₹	8.60
New average collection period = 2 months		
Amount invested in receivables = ₹ 12,90,000 / 12 x 2	= ₹	2,15,000
Amount invested in number of units receivables under existing policy = 1,20,000 / 12 x 1 month	=	10,000 units
Investment in receivables = 10,000 units x ₹ 9 (variable cost only)	= ₹	90,000
Additional investment in receivables = New Investment – old Investment = ₹ 2,15,000 – ₹ 90,000	= ₹	1,25,000
Profitability of additional sales = Additional units sold x contribution per unit = 30,000 x ₹ 3	= ₹	90,000
Return on additional Investment in receivables = ₹ 90,000 / ₹ 125,000 x ₹ 100	=	72%

The required rate of return of the firm is only 30 % while the actual return on additional investment in receivables comes to 72% on adoption of new policy. Therefore, the firm should adopt the new credit policy.

Question 3

(a) The following data relate to Intel Projects (India) Ltd. :

Year ending 31st March	Net Earnings Per Share	Net Dividend Per Share
	(₹)	(₹)
2006	32	17.50
2007	28	18.50

2008	26	20.00
2009	26	21.00
2010	24	22.00

There are 10 lakh equity shares issued and majority of these shares are owned by private investors. There is no debt in the capital structure of the company.

The company has been experiencing difficult trading conditions over the past few years. In the current year, net earnings are likely to be ₹2.20 crore, which will be just sufficient to pay a maintained dividend of ₹22 per share.

You are required to comment on the company's dividend policy between 2005-06 to 2009-10; and on its possible consequences for earnings.

(6 marks)

- (b) Hi-Fi Builders Ltd. needs to acquire the use of a crane for its construction business. The crane if purchased outright will cost ₹10,00,000. A hire-purchase and leasing company has offered the following two alternatives :*

Hire-Purchase : ₹2,50,000 will be payable on signing of the agreement. Three annual installments of ₹4,00,000 will be payable at the end of each year starting from year one. The ownership in the crane will be transferred automatically at the end of the third year. It is assumed that the company will be able to claim depreciation on straight line basis with zero salvage value.

Leasing : ₹20,000 will be payable towards initial service fee upon signing of the lease agreement. Annual lease rent of ₹4,32,000 is payable at the end of each year starting from the first, for a period of three years.

The company is in 35% tax bracket and its discount rate is 20%. Should it hire-purchase or lease the crane ?

(8 marks)

- (c) How do firms manage economic risk due to fluctuations in forex market?*

(6 marks)

Answer 3(a)

Comments on Company's Dividend Policy : From the data stated in the question, it can be observed that, the EPS of Company has fallen from ₹ 32 to ₹ 24 over a period of time (from 2005-06 to 2009-10). It represents 25 % fall in EPS during the said period. But if we see the Net DPS, it is increasing from ₹ 17.50 to ₹ 22.00 over three years.

EPS and DPS are moving in opposite directions. Assuming that capital structure remains constant, both actual earnings and return on capital employed have gone down. Low EPS indicates that either company is earning less profit or surpluses available with the company are less.

Comments on possible consequences for earnings : it is seen that dividend per share is gradually increasing. The management would probably think that the increase in dividend year after year give indication that company is growing. The increase in dividend per share in a situation of decreasing EPS will adversely affect the retention ratio and will adversely affect its long term profitability. This will also weaken the company's competitive position and wrong signals to the investors which may cause to fall in market price of company's share

Answer 3(b)**Option I: Hire Purchase****Computation of Interest Charges and depreciation**

Year	Installments (₹) (a)	Interest (₹) (b)*	Cash price (₹) (a-b)	Depreciation (₹)
0	2,50,000	-	2,50,000	-
1	4,00,000	2,25,000	1,75,000	3,33,333
2	4,00,000	1,50,000	2,50,000	3,33,333
3	4,00,000	75,000	3,25,000	3,33,334
	14,50,000	4,50,000	10,00,000	10,00,000

* As the total hire purchase price is Rs. 14,50,000 and the cash price cost is Rs. 10,00,000. Hence the interest is Rs. 4,50,000 which is proportioned in the ratio of hire purchase price outstanding i.e. 3:2:1.

Calculation of cash outflows in Hire Purchase

Year	Installment (₹) (a)	Tax shield @ 35 % of Interest + depreciation (b)	Net outflow (₹) $c = (a-b)$	PV factor @ 20 % (₹) (d)	PV of outflow (₹) $c * d$
0	2,50,000	-	2,50,000	1.0000	2,50,000
1	4,00,000	1,95,417	2,04,583	0.8333	1,70,479
2	4,00,000	1,69,167	2,30,833	0.6944	1,60,290
3	4,00,000	1,42,917	2,57,083	0.5787	1,48,774
					7,29,543

Option II: Leasing**Calculation of cash outflows**

Year	Installment (₹) (a)	Tax shield @ 35 % of Lease Rental (b)	Net outflow (₹) $c = (a-b)$	PV factor @ 20 % (₹) (d)	PV of outflow (₹) $c * d$
0	20,000	-	20,000	1.0000	20,000
1	4,32,000	1,58,200 (35% of 20,000 + 4,32,000)	2,73,800	0.8333	2,28,158
2	4,32,000	1,51,200 (35% of 4,32,000)	2,80,800	0.6944	1,94,988
3	4,32,000	1,51,200 (35% of 4,32,000)	2,80,800	0.5787	1,62,499
					6,05,645

The present value of cash outflows in case of hire purchase alternative is ₹ 7,29,543 and in case of lease alternative is ₹ 6,05,645. The lease option implies lesser cost and, therefore, the firm should procure the crane on lease basis.

Answer 3(c)

Economic risk refers to unfavorable economic conditions in buyer or seller's country which may affect both parties in fulfilling their obligations. On the buyer side, economic risk may result in buyer's insolvency or inability to accept the goods and services. On the other hand, the seller may experience difficulty in producing or shipping the goods.

Once a firm recognizes its risk, it can reduce it by using following tools:

- Forecasts
- Risk Estimation
- Benchmarking
- Hedging
- Netting
- Matching
- Leading and Lagging
- Stop loss
- Reporting and Review

Question 4

Distinguish between any four of the following :

- (i) *'Control need of widely-held company' and 'control need of closely-held company'.*
- (ii) *'Capital structure' and 'financial structure'.*
- (iii) *'Finance lease' and 'sale-and-lease back'.*
- (iv) *'Net income approach to capital structure' and 'net operating income approach to capital structure'.*
- (v) *'Financial risk' and 'business risk'.* (5 marks each)

Answer 4(i)**'Control Need of Widely held company' and 'Control Need of closely held company'**

A closely held company is a company whose common shares are owned by one individual owner or by a small group of controlling stockholders. This is in contrast to a widely held stock, in which thousands or even millions of different investors may own shares in a large company. Closely held stock is typically not publicly traded on exchanges because the small number of owners rarely sells their shares. A common way that a closely held stock is created is when an entrepreneur starts and incorporates his or her own business, but retains ownership of all the company's outstanding shares.

Answer 4(ii)**Capital Structure and Financial Structure**

- Capital Structure relates to long term capital sources for creation of long term assets. Financial Structure involves creation of long term as well as short term sources of funds.
- Capital Structure is the core element of financial structure. Capital Structure can exist without the current liabilities and in such cases, capital structure will be equal to financial structure. But we cannot have a situation where the firm has only current liabilities and no long term capital.

The financial structure of the firm is considered to be balance one if the amount of current liabilities is less than the capital structure net of outside debt because in such cases, the long term capital is considered sufficient to pay current liabilities (in case of sudden loss of current assets.)

Answer 4(iii)**'Financial lease' and 'Sale and leaseback'**

Financial lease is like an installment loan. It is a legal commitment to pay for the entire cost of equipment plus interest over a specific period of time. The lessee commits to a series of payments which in total exceeds the original cost of the equipment. It excludes the provision for maintenance or taxes which are paid separately, by the lessee. Contract period ranges from medium to long term. These contracts are generally non cancelable.

A 'sale and leaseback' allows a company to raise money from the sale of assets, while retaining use of them, but at the cost of increasing operational. The money raised from selling assets may make the company financially stronger, but is commonly used, at least in part, to return capital to shareholders.

Answer 4(iv)**Net Income approach and Net Operating Income approach**

According to NI approach, if the financial leverage increases, the weighted average cost of capital decreases and the value of the firm and the market price of the equity shares increases. Similarly, if the financial leverage decreases, the weighted average cost of capital increases and the value of the firm and the market price of the equity shares decreases.

Net Operating Income Approach is of the opposite view of Net Income approach. This approach suggests that the capital structure decision of a firm is irrelevant and that any change in the leverage or debt will not result in a change in the total value of the firm as well as the market price of its shares. This approach also says that the overall cost of capital is independent of the degree of leverage

Answer 4(v)**Financial Risk and Business Risk**

Financial risk is the associated risk if an investment will not generate sufficient cash

flows either to cover interest payment on money borrowed to finance it or principal repayment on the debt or to provide profits to the firm.

Business Risk can be defined as the chance that the firm will not have the ability to complete successfully with the assets that it purchases, for example, the firm may acquire a machine that may not operate properly, that may not produce saleable products or that may face other operating or market difficulties that causes losses.

Business risk is related to the viability of earnings before interest and taxes (EBIT), Financial risk is related to the variability of earnings per share.

Factors responsible for business risk are changes in consumer preferences, competitors actions, technological obsolescence, business cycle, etc. Thus, so long as the environment is given to the firm, business risk is an unavoidable risk. Financial risk, on the other hand, is associated with the financing decisions or the capital mix of the firm.

Question 5

- (a) A Portfolio Manager has three stocks in his portfolio. Following information is available in respect of his portfolio :

Company	Investment (₹)	β
X Ltd.	6,00,000	1.3
Y Ltd.	3,00,000	1.4
Z Ltd.	1,00,000	0.9

Expected return on the market portfolio is 15% and the risk free rate of interest is 6%. On the basis of Capital Asset Pricing Model (CAPM), compute the following :

- (i) Expected return of the portfolio; and
 (ii) Expected β of the portfolio. (8 marks)
- (b) The following data is related to X Ltd., Y Ltd. and Z Ltd. for the current financial year :

	X Ltd.	Y Ltd.	Z Ltd.
Variable cost as a % of sales	70	75	50
Interest expense (₹)	20,000	30,000	1,00,000
Degree of operating leverage	5:1	6:1	2:1
Degree of financial leverage	3:1	4:1	2:1
Corporate tax rate	30%	30%	30%

You are required to prepare their income statements.

(12 marks)

Answer 5(a)**Expected rate of Individual Securities**

$$\bar{r}_a = r_f + \beta_a (\bar{r}_m - r_f)$$

Where :

$$r_f = \text{Risk free rate} = 6\%$$

$$\beta_a = \text{Beta of the security}$$

$$\bar{r}_m = \text{Expected market return} = 15\%$$

$$\bar{r}_a \text{ of X Ltd.} = .06 + 1.3 (.15 - .06) = .06 + .117 = .177$$

$$\bar{r}_a \text{ of Y Ltd.} = .06 + 1.4 (.15 - .06) = .06 + .126 = .186$$

$$\bar{r}_a \text{ of Z Ltd.} = .06 + 0.9 (.15 - .06) = .06 + .081 = .141$$

(i) Expected rate of Portfolio

Company	Amount (₹)	Weight (w)	β_a	$\bar{r}_a$	$w \times \bar{r}_a$
X Ltd.	6,00,000	0.6	1.3	0.177	0.1062
Y Ltd.	3,00,000	0.3	1.4	0.186	0.0558
Z Ltd.	1,00,000	0.1	0.9	0.141	0.0141
	10,00,000				0.1761

So the expected return of the portfolio is 0.1761 or 17.61%

(ii) Expected β of the portfolio

$$\begin{aligned} \rho_p &= \rho_1 W_1 + \rho_2 W_2 + \rho_3 W_3 \\ &= 1.3 \times 0.6 + 1.4 \times 0.3 + 0.9 \times 0.1 \\ &= .78 + .48 + .09 \\ \rho_p &= 1.29 \end{aligned}$$

Answer 5(b)**Income Statement**

Particulars	X Ltd. (in ₹)	Y Ltd. (in ₹)	Z Ltd. (in ₹)
Sales *	5,00,000	9,60,000	8,00,000
Less : variable cost	3,50,000	7,20,000	4,00,000
	(70% of sales)	(75% of sales)	(50% of sales)
Contribution	1,50,000	2,40,000	4,00,000
Less : fixed cost	1,20,000	2,00,000	2,00,000

Particulars	X Ltd. (in ₹)	Y Ltd. (in ₹)	Z Ltd. (in ₹)
EBIT	30,000	40,000	2,00,000
Less: Interest expense	20,000	30,000	1,00,000
EBT	10,000	10,000	1,00,000
Less : Corporate tax @30%	3,000	3,000	30,000
EAT	7,000	7,000	70,000

*Working notes:

Particulars	X Ltd. (in ₹)	Y Ltd. (in ₹)	Z Ltd. (in ₹)
Calculation of EBIT			
Interest Expense	20,000	30,000	1,00,000
Degree of financial Leverage=	3= EBIT/ EBIT-20,000	4 = EBIT/ EBIT- 30,000	2= EBIT/ EBIT- 1,00,000
Earning before interest and tax/ EBIT -Interest	3 EBIT -60,000 = EBIT	4 EBIT -1,20,000 = EBIT	2 EBIT - 2,00,000 = EBIT
	2 EBIT= 60,000 EBIT= 30,000	3 EBIT= 1,20,000 EBIT= 40,000	EBIT= 2,00,000 EBIT= 2,00,000
Calculation of Contribution			
Degree of operating leverage =	5 = Contribution/ Rs.30,000	6 = Contribution = Rs.40,000	2 = Contribution = ₹2,00,000
Contribution/EBIT	Contribution = 1,50,000	Contribution = 2,40,000	Contribution = 4,00,000
Calculation of fixed cost			
Fixed cost = Contribution - EBIT	1,20,000	2,00,000	2,00,000
Variable cost	70%	75%	50%
Calculation of Sales			
Sales = contribution/sales	1,50,000/100-70 (in %)	2,40,000/100-75 (in %)	4,00,000/ 100 -50 (in %)
– variable cost (%)	1,50,000/ 30 %	2,40,000/ 25%	4,00,000/ 50%
	= ₹5,00,000	= ₹9,60,000	= ₹8,00,000

Question 6

Unichem Ltd. sells its products on a gross profit margin of 20% on sales. The following figures and ratios are extracted from its annual accounts for the year ended 31st March, 2010 :

<i>Sales for the year (all credit)</i>	<i>₹ 40,00,000</i>
<i>Fixed assets turnover (Cost of goods sold basis)</i>	<i>1.6</i>
<i>Stock turnover (Cost of goods sold basis)</i>	<i>8</i>
<i>Liquid ratio</i>	<i>1 : 1</i>
<i>Current ratio</i>	<i>1.8 : 1</i>
<i>Debtors collection period</i>	<i>1 Month</i>
<i>Reserves and surplus to share capital</i>	<i>0.6 : 1</i>
<i>Capital gearing ratio</i>	<i>0.5</i>
<i>Fixed assets to net worth</i>	<i>1.25 : 1</i>

On the basis of above details, you are required to prepare —

- (i) Balance sheet of the company; and*
- (ii) The statement showing working capital requirement, with a provision for contingencies @ 10% of net working capital. (20 marks)*

Answer 6(i)**Balance Sheet of Unichem Ltd. as on 31st March 2010**

<i>Liabilities</i>	<i>Amount (₹)</i>	<i>Assets</i>	<i>Amount (₹)</i>
Share Capital	10,00,000	Fixed Assets	20,00,000
Reserve and Surplus	6,00,000	Closing Stock	4,00,000
Long term debts	8,00,000	Debtors	3,33,333
Current Liabilities	5,00,000	Cash	1,66,667
	29,00,000		29,00,000

Working Notes:

- (a) Cost of goods sold = Sales – gross profit (20 % of sales)
= ₹ 40,00,000 – ₹ 8,00,000 = ₹ 32,00,000
- (b) Closing Stock = Cost of goods sold / Stock turnover
= ₹ 32,00,000 / 8 = ₹ 4,00,000
- (c) Fixed Assets = Cost of goods sold / Fixed Assets turnover
= ₹ 32,00,000 / 1.6 = ₹ 20,00,000
- (d) Current Assets
Current ratio = 1.8 : 1

$$\text{Liquid ratio} = 1:1$$

$$\text{Closing stock} = 1.8 - 1 = 0.8$$

$$\text{Hence, Current Assets} =$$

$$= \frac{4,00,000 \times 1.8}{0.8}$$

$$= ₹ 9,00,000$$

$$\begin{aligned} \text{(e) Liquid Assets (Debtors + cash)} &= \text{Current Assets} - \text{Closing Stock} \\ &= ₹ 9,00,000 - ₹ 4,00,000 = ₹ 5,00,000 \end{aligned}$$

$$\begin{aligned} \text{(f) Debtors} &= \frac{\text{Sales} \times \text{Debtors Collection period}}{12} \\ &= ₹ 40,00,000 \times 1 / 12 = ₹ 3,33,333 \end{aligned}$$

$$\begin{aligned} \text{(g) Cash} &= \text{Liquid Assets} - \text{Debtors} \\ &= ₹ 5,00,000 - ₹ 3,33,333 = ₹ 1,66,667 \end{aligned}$$

$$\begin{aligned} \text{(h) Net Worth} &= \text{Fixed Assets} / 1.25 \\ &= ₹ 20,00,000 / 1.25 = ₹ 16,00,000 \end{aligned}$$

$$\begin{aligned} \text{(i) Reserve and Surplus} &= \text{Reserves} + \text{Share capital} \\ &= 0.6 + 1 \\ &= ₹ 16,00,000 \times 0.6 / 1.6 = ₹ 6,00,000 \end{aligned}$$

$$\begin{aligned} \text{(j) Share capital} &= \text{Net worth} - \text{Reserve and Surplus} \\ &= ₹ 16,00,000 - ₹ 6,00,000 = ₹ 10,00,000 \end{aligned}$$

$$\begin{aligned} \text{(k) Current Ratio} &= \text{Current Assets} / \text{Current Liabilities} \\ &= ₹ 9,00,000 / 1.8 = ₹ 5,00,000 \end{aligned}$$

$$\text{(l) Long term debts} =$$

$$\text{Capital gearing ratio} = \text{Long term Debts} / \text{Net worth}$$

$$\text{Long term debts} = ₹ 16,00,000 \times 0.5 = ₹ 8,00,000$$

Answer 6(ii)**Statement Showing Working Capital Requirement**

<i>Particulars</i>	<i>Amount (in ₹)</i>	<i>Grand Total (in ₹)</i>
A. Current Assets		
Closing Stock	4,00,000	
Debtors	3,33,333	
Cash	1,66,667	9,00,000

<i>Particulars</i>	<i>Amount (in ₹)</i>	<i>Grand Total (in ₹)</i>
B. Current Liabilities	5,00,000	5,00,000
Working capital before provision (A- B)		4,00,000
Add : Provision for Contingencies @ 10 % of working capital including provision or 1/9 of working Capital before provision		
₹ 4,00,000 x 1/9	44,444	44,444
Net Working Capital Requirement		4,44,444

Question 7

Write notes on any four of the following :

- (i) *Forfaiting*
- (ii) *Financial distress*
- (iii) *Cost of retained earnings*
- (iv) *Advantages of commodity trading*
- (v) *Services provided by venture capital fund.* (5 marks each)

Answer 7(i)**Forfaiting**

It is the method of export trade financing, especially when dealing in capital (which have long payment periods) or with high risk countries. In forfeiting, a bank advances cash to an exporter against invoices or promissory notes guaranteed by the importer's bank.

The amount advanced is always 'without recourse' to the exporter, and is less than the invoice or note amount as it is discounted by the bank. The discount rate depends on the terms of the invoice/note and the level of the associated risk

Answer 7(ii)**Financial Distress**

Generally, the affairs of the firm should be managed in such a way that the total risk-business as well as financial borne by equity shareholders is minimized and is manageable, otherwise the firm will 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. Failures 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.

Answer 7(iii)**Cost of Retained Earnings**

Retained earnings are reinvested in the firm. Since there is no explicit payout from the retained earnings, it has been argued that there is no cost to the firm for carrying these retained earnings. It is further stated that these retained earnings acquire the character of owners' perpetual capital and as such, the return on investment of the firm is ultimately proportional to the rate of growth of retained earnings. The capital that is reinvested in business carry some cost if that is ideal and the firm bears a cost on it which affects the profitability of the firm. Therefore, the cost of retained earnings is the opportunity cost of returns obtained in a similar investment elsewhere.

Answer 7(iv)**Advantages of commodity trading**

- Good low risk portfolio diversifier.
- Less volatile as compared to equity trading
- Better risk adjusted returns
- A highly liquid asset class, acting as a counter weight to stocks, bonds and real estate.
- Investors can leverage their investment and multiply potential earnings.
- A good hedge against any downturn in equities or bonds as there is little correlation with equity and bond market.
- High correlation with changes in Inflation.

Answer 7(v)**Services Provided by venture capital fund**

Venture Capital (VC) is risk capital invested in privately held companies by Venture Capital firms, through the underwriting of newly issued stock and/or convertible bonds. Services offered by venture capital are:

- Finance new and rapidly growing companies, typically knowledge based, sustainable, up scaleable companies
- Purchase equity/quasi- equity securities
- Assist in the development of new products and services
- Add value to the company through active participation
- Take higher risks with the expectation of higher rewards having a long term orientation.

TABLE - I : PRESENT VALUE OF RUPEE ONE

RATE	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	YEAR
5%	0.9524	0.9070	0.8638	0.8227	0.7835	0.7462	0.7107	0.6768	0.6446	0.6139	0.5847	0.5568	0.5303	0.5051	0.4810	
6%	0.9434	0.8900	0.8396	0.7921	0.7473	0.7050	0.6651	0.6274	0.5919	0.5584	0.5268	0.4970	0.4688	0.4423	0.4173	
7%	0.9346	0.8734	0.8163	0.7629	0.7130	0.6663	0.6227	0.5820	0.5439	0.5083	0.4751	0.4440	0.4150	0.3878	0.3624	
8%	0.9259	0.8573	0.7938	0.7350	0.6806	0.6302	0.5835	0.5403	0.5002	0.4632	0.4289	0.3971	0.3677	0.3405	0.3152	
9%	0.9174	0.8417	0.7722	0.7084	0.6499	0.5963	0.5470	0.5019	0.4604	0.4224	0.3875	0.3555	0.3262	0.2992	0.2745	
10%	0.9091	0.8264	0.7513	0.6830	0.6209	0.5645	0.5132	0.4665	0.4241	0.3855	0.3505	0.3186	0.2897	0.2633	0.2394	
11%	0.9009	0.8116	0.7312	0.6587	0.5935	0.5346	0.4817	0.4339	0.3909	0.3522	0.3173	0.2858	0.2575	0.2320	0.2090	
12%	0.8929	0.7972	0.7118	0.6355	0.5674	0.5066	0.4523	0.4039	0.3606	0.3220	0.2875	0.2567	0.2292	0.2046	0.1827	
13%	0.8850	0.7831	0.6931	0.6133	0.5428	0.4803	0.4251	0.3762	0.3329	0.2946	0.2607	0.2307	0.2042	0.1807	0.1599	
14%	0.8772	0.7695	0.6750	0.5921	0.5194	0.4556	0.3996	0.3506	0.3075	0.2697	0.2366	0.2076	0.1821	0.1597	0.1401	
15%	0.8696	0.7561	0.6575	0.5718	0.4972	0.4323	0.3759	0.3269	0.2843	0.2472	0.2149	0.1869	0.1625	0.1413	0.1229	
16%	0.8621	0.7432	0.6407	0.5523	0.4761	0.4104	0.3538	0.3050	0.2630	0.2267	0.1954	0.1685	0.1452	0.1252	0.1079	
17%	0.8547	0.7305	0.6244	0.5337	0.4561	0.3898	0.3332	0.2848	0.2434	0.2080	0.1778	0.1520	0.1299	0.1110	0.0949	
18%	0.8475	0.7182	0.6086	0.5158	0.4371	0.3704	0.3139	0.2660	0.2255	0.1911	0.1619	0.1372	0.1163	0.0985	0.0835	
19%	0.8403	0.7062	0.5934	0.4987	0.4190	0.3521	0.2959	0.2487	0.2090	0.1756	0.1476	0.1240	0.1042	0.0876	0.0736	
20%	0.8333	0.6944	0.5787	0.4823	0.4019	0.3349	0.2791	0.2326	0.1938	0.1615	0.1346	0.1122	0.0935	0.0779	0.0649	
21%	0.8264	0.6830	0.5645	0.4665	0.3855	0.3186	0.2633	0.2176	0.1799	0.1486	0.1228	0.1015	0.0839	0.0693	0.0573	
22%	0.8197	0.6719	0.5507	0.4514	0.3700	0.3033	0.2486	0.2038	0.1670	0.1369	0.1122	0.0920	0.0754	0.0618	0.0507	
23%	0.8130	0.6610	0.5374	0.4369	0.3552	0.2888	0.2348	0.1909	0.1552	0.1262	0.1026	0.0834	0.0678	0.0551	0.0448	
24%	0.8065	0.6504	0.5245	0.4230	0.3411	0.2751	0.2218	0.1789	0.1443	0.1164	0.0938	0.0757	0.0610	0.0492	0.0397	
25%	0.8000	0.6400	0.5120	0.4096	0.3277	0.2621	0.2097	0.1678	0.1342	0.1074	0.0859	0.0687	0.0550	0.0440	0.0352	

TABLE - 2 : PRESENT VALUE OF AN ANNUITY OF RUPEE ONE

RATE	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15			
5%	0.9524	1.8594	2.7232	3.5460	4.3295	5.0757	5.7864	6.4632	7.1078	7.7217	8.3064	8.8633	9.3936	9.8986	10.3797			
6%	0.9434	1.8334	2.6730	3.4651	4.2124	4.9173	5.5824	6.2098	6.8017	7.3601	7.8869	8.3838	8.8527	9.2950	9.7122			
7%	0.9346	1.8080	2.6243	3.3872	4.1002	4.7665	5.3893	5.9713	6.5152	7.0236	7.4987	7.9427	8.3577	8.7455	9.1079			
8%	0.9259	1.7833	2.5771	3.3121	3.9927	4.6229	5.2064	5.7466	6.2469	6.7101	7.1390	7.5361	7.9038	8.2442	8.5595			
9%	0.9174	1.7591	2.5313	3.2397	3.8897	4.4859	5.0330	5.5348	5.9952	6.4177	6.8052	7.1607	7.4869	7.7862	8.0607			
10%	0.9091	1.7355	2.4869	3.1699	3.7908	4.3553	4.8684	5.3349	5.7590	6.1446	6.4951	6.8137	7.1034	7.3667	7.6061			
11%	0.9009	1.7125	2.4437	3.1024	3.6959	4.2305	4.7122	5.1461	5.5370	5.8892	6.2065	6.4924	6.7499	6.9819	7.1909			
12%	0.8929	1.6901	2.4018	3.0373	3.6048	4.1114	4.5638	4.9676	5.3282	5.6502	5.9377	6.1944	6.4235	6.6282	6.8109			
13%	0.8850	1.6681	2.3612	2.9745	3.5172	3.9975	4.4226	4.7988	5.1317	5.4262	5.6869	5.9176	6.1218	6.3025	6.4624			
14%	0.8772	1.6467	2.3216	2.9137	3.4331	3.8887	4.2883	4.6389	4.9464	5.2161	5.4527	5.6603	5.8424	6.0021	6.1422			
15%	0.8696	1.6257	2.2832	2.8550	3.3522	3.7845	4.1604	4.4873	4.7716	5.0188	5.2337	5.4206	5.5831	5.7245	5.8474			
16%	0.8621	1.6052	2.2459	2.7982	3.2743	3.6847	4.0386	4.3436	4.6065	4.8332	5.0286	5.1971	5.3423	5.4675	5.5755			
17%	0.8547	1.5852	2.2096	2.7432	3.1993	3.5892	3.9224	4.2072	4.4506	4.6586	4.8364	4.9884	5.1183	5.2293	5.3242			
18%	0.8475	1.5656	2.1743	2.6901	3.1272	3.4976	3.8115	4.0776	4.3030	4.4941	4.6560	4.7932	4.9095	5.0081	5.0916			
19%	0.8403	1.5465	2.1399	2.6386	3.0576	3.4098	3.7057	3.9544	4.1633	4.3389	4.4865	4.6105	4.7147	4.8023	4.8759			
20%	0.8333	1.5278	2.1065	2.5887	2.9906	3.3255	3.6046	3.8372	4.0310	4.1925	4.3271	4.4392	4.5327	4.6106	4.6755			
21%	0.8264	1.5095	2.0739	2.5404	2.9260	3.2446	3.5079	3.7256	3.9054	4.0541	4.1769	4.2784	4.3624	4.4317	4.4890			
22%	0.8197	1.4915	2.0422	2.4936	2.8636	3.1669	3.4155	3.6193	3.7863	3.9232	4.0354	4.1274	4.2028	4.2646	4.3152			
23%	0.8130	1.4740	2.0114	2.4483	2.8035	3.0923	3.3270	3.5179	3.6731	3.7993	3.9018	3.9852	4.0530	4.1082	4.1530			
24%	0.8065	1.4568	1.9813	2.4043	2.7454	3.0205	3.2423	3.4212	3.5655	3.6819	3.7757	3.8514	3.9124	3.9616	4.0013			
25%	0.8000	1.4400	1.9520	2.3616	2.6893	2.9514	3.1611	3.3289	3.4631	3.5705	3.6584	3.7251	3.7801	3.8241	3.8593			