

FM Suggested Answers by CA Ashish Kalra Sir

(CA Inter May 2024)

Q1(a): Theme Ltd provides you the following information:

12.5% Debt	₹45,00,000
Debt to Equity ratio	1.5 : 1
Return on Shareholder's fund	54%
Operating Ratio	85%
Ratio of operating expenses to Cost of Goods sold	2 : 6
Tax rate	25%
Fixed Assets	₹39,00,000
Current Ratio	1.8 : 1

You are required to calculate: (i) Interest Coverage Ratio (ii) Gross Profit Ratio (iii) Current Assets

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Solution 1(a): Working Notes:

Debt = ₹45,00,000

Interest = ₹45,00,000 × 12.5% = ₹5,62,500

Debt to Equity = 1.5:1 = $\frac{\text{Total Debt}}{\text{Shareholders' Equity}}$

Equity = ₹30,00,000

Return of Shareholder's funds = 54% = $\frac{\text{Net Profit after taxes}}{\text{Equity shareholders' fund}} \times 100$

Profit after tax (PAT) = 54% × Equity = ₹16,20,000

Profit before tax (PBT)(1 - 25%) = Profit after tax
= ₹16,20,000 / 75% = ₹21,60,000

Earning before interest and tax (EBIT) = PBT + Interest
= ₹21,60,000 + ₹5,62,500 = ₹27,22,500

(i) Interest Coverage Ratio = $\frac{\text{EBIT}}{\text{Interest}} = \frac{₹27,22,500}{₹5,62,500} = 4.84 \text{ Times}$

(ii) Operating Profit Ratio = 1 - Operating Ratio = 1 - 0.85 = 0.15 or 15%

0.15 = $\frac{\text{Operating Profit}}{\text{Sales}} \times 100$

Sales = $\frac{\text{EBIT or Operating Profit}}{0.15} = \frac{₹27,22,500}{0.15} = ₹1,81,50,000$

Operating ratio = $\frac{\text{Operating expenses}}{\text{Cost of goods sold (COGS)}} = 2:6 = 1:3$

Operating expenses = 1/3 COGS

Operating cost = Sales - Operating profit

= ₹1,81,50,000 - ₹27,22,500 = ₹1,54,27,500

₹1,54,27,500 = COGS + Operating expenses

₹1,54,27,500 = COGS + 1/3 COGS

COGS = ₹1,15,70,625

Gross profit = Sales - COGS = ₹1,81,50,000 - ₹1,15,70,625 = ₹65,79,375

Gross Profit ratio = $\frac{\text{Gross Profit}}{\text{Sales}} \times 100 = \frac{₹65,79,375}{₹1,81,50,000} = 0.3625 \text{ or } 36.25\%$

Gross profit and sales can be calculated in alternative way also. However, there will be no change in GP ratio i.e. 36.25%

(iii) Current Ratio = $\frac{\text{Current Assets}}{\text{Current Liabilities}}$
= 1.8

Current Assets = 1.8 Current Liabilities

Total of Balance sheet liability = Equity + Debt + Current Liabilities
= ₹30,00,000 + ₹45,00,000 + CL ... (2)

$$\begin{aligned}\text{Total Balance sheet asset} &= \text{Fixed Assets} + \text{Current Assets} \\ &= 39 \text{ lakhs} + \text{CA} = 39 + 1.8\text{CL} \quad \dots(3)\end{aligned}$$

$$\begin{aligned}\text{Equating (2) and (3),} \\ 75,00,000 + \text{CL} &= 39,00,000 + 1.8\text{CL} \\ 0.8\text{CL} &= 36,00,000 \\ \text{CL} &= ₹45,00,000\end{aligned}$$

$$\text{Current Assets} = 1.8 \text{ CL} = 1.8 \times 45 \text{ lakhs} = ₹81,00,000$$

Q1(b): Alpha Limited has provided following information:

Equity Share Capital	25,000 Shares @ ₹100 per Share
15% Debentures	10,000 Debentures @ ₹750 per Debenture
Sales	50 Lakhs units @ ₹20 per unit
Variable Cost	₹12.50 per unit
Fixed Costs	₹175.00 Lakhs

Due to recent policy changes and entry of foreign competitors in the sector, Alpha Limited expects the sales may decline by 15-20%. However, selling price and other costs will remain the same. Corporate Taxes will continue @20%. You are required to calculate the decrease in Earnings per share, Degree of Operating Leverage and Financial Leverage separately if sales are declined by (i) 15%; and (ii) 20%;

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Solution 1(b): Income Statement with required calculations

Particulars	Existing (₹)	Sales declined by 15% (₹)	Sales declined by 20% (₹)
Sales in units	50,00,000	42,50,000	40,00,000
Sales price per unit	20	20	20
Variable Cost per unit	(12.50)	(12.50)	(12.50)
Contribution per unit	7.5	7.5	7.5
Contribution	3,75,00,000	3,18,75,000	3,00,00,000
Fixed expenses	(1,75,00,000)	(1,75,00,000)	(1,75,00,000)
EBIT	2,00,00,000	1,43,75,000	1,25,00,000
Debenture Interest	(11,25,000)	(11,25,000)	(11,25,000)
EBT	1,88,75,000	1,32,50,000	1,13,75,000
Tax @ 20%	(37,75,000)	(26,50,000)	(22,75,000)
Profit after tax (PAT)	1,51,00,000	1,06,00,000	91,00,000
No. of shares	25,000	25,000	25,000
Earnings per share (EPS)	₹604	₹424	₹364
$= \left(\frac{\text{PAT}}{\text{No. of shares}} \right)$	$\left(\frac{1,51,00,000}{25,000} \right)$	$\left(\frac{1,06,00,000}{25,000} \right)$	$\left(\frac{91,00,000}{25,000} \right)$
(i) Decrease in EPS		₹180 Or 29.80% (180/604 × 100)	₹240 Or 39.73% (240/604 × 100)
(ii) Operating leverage		2.22	2.40
$= \left(\frac{\text{Contribution}}{\text{EBIT}} \right)$		$\left(\frac{3,18,75,000}{1,43,75,000} \right)$	$\left(\frac{3,00,00,000}{1,25,00,000} \right)$
Or		Or	Or
Degree of Operating leverage		1.875	1.875
$= \frac{\text{Percentage change in EBIT}}{\text{Percentage change in sales}}$		(28.125/15)	(37.50/20)
(iii) Financial Leverage		1.08	= 1.10
$= \frac{\text{EBIT}}{\text{EBT}}$		$\left(\frac{1,43,75,000}{1,32,50,000} \right)$	$\left(\frac{1,25,00,000}{1,13,75,000} \right)$
Or		Or	Or
Degree of Financial Leverage		1.06	1.06
$= \frac{\text{Percentage change in EBIT}}{\text{Percentage change in EPS}}$		(29.80/28.125)	(39.735/37.50)

Percentage change in EBIT			
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Q1(c): Following is the sales information in respect of Bright Ltd:

Annual Sales (90 % on credit)	₹7,50,00,000
Credit period	45 days
Average Collection period	70 days
Bad debts	0.75%
Credit administration cost (out of which 2/5 th is avoidable)	₹18,60,000

A factor firm has offered to manage the company's debtors on a non-recourse basis at a service charge of 2%. Factor agrees to grant advance against debtors at an interest rate of 14% after withholding 20% as reserve. Payment period guaranteed by factor is 45 days. The cost of capital of the company is 12.5%. One time redundancy payment of ₹50,000 is required to be made to factor.

Calculate the effective cost of factoring to the company. (Assume 360 days in a year)

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Solution 1(c): Evaluation of Factoring Proposal

	Particulars	(₹)
(A) Savings due to factoring		
	Bad Debts saved (0.75% × 7.5 crores × 90%)	₹5,06,250
	Administration cost saved (18.6 lakhs × 2/5)	₹7,44,000
	Interest saved due to reduction in average collection period [7.5 crores × 90% × (70 - 45)/360 × 12.5%]	₹5,85,937.5
	Total	₹18,36,187.5
(B) Costs of factoring:		
	Service charge (7.5 crores × 90% × 2%)	₹13,50,000
	Interest cost (₹1,15,171.875 × 360/45)	₹9,21,375
	Redundancy Payment	₹50,000
	Total	₹23,21,375
(C) Net Annual cost to the Firm: [(A) - (B)]		₹4,85,187.5
	Rate of effective cost of factoring (₹4,85,187.5/₹64,66,078.125 × 100)	7.504%

Advice: Since the rate of effective cost of factoring is less than the existing cost of capital, therefore, the proposal is acceptable.

Credit Sales (7.5 crores × 90%)	₹6,75,00,000
Average level of receivables (₹6.75 crores × 45/360)	₹84,37,500
Service charge (2% of ₹84,37,500)	₹1,68,750
Reserve (20% of ₹84,37,500)	₹16,87,500
Total (i)	₹18,56,250
Thus, the amount available for advance is Average level of receivables	₹84,37,500
Less: Total (i) from above	(₹18,56,250)
(ii)	₹65,81,250
Less: Interest @ 14% p.a. for 45 days	(₹1,15,171.875)
Net Amount of Advance available	₹64,66,078.125

Note: Alternatively, if redundancy cost is taken as irrelevant for decision making, then Net Annual cost to the Firm will be ₹4,35,187.5 and Rate of effective cost of factoring will be ₹4,35,187.5/₹64,66,078.125 × 100 = 6.730%

If average level of receivables is considered for 70 days then the calculation can be done in following way:

Evaluation of Factoring Proposal

Credit Sales (7.5 crores × 90%)	₹6,75,00,000
Average level of receivables (₹6.75 crores × 70/360)	₹1,31,25,000
Service charge (2% of ₹1,31,25,000)	₹2,62,500
Reserve (20% of ₹1,31,25,000)	₹26,25,000

Total (i)	₹28,87,500
Thus, the amount available for advance is	
Average level of receivables	₹1,31,25,000
Less: Total (i) from above	(₹28,87,500)
(ii)	₹1,02,37,500
Less: Interest @14% p.a. for 45 days	(₹1,79,156.25)
Net Amount of Advance available	₹1,00,58,343.75

Note 1: Accordingly, interest cost will be ₹14,33,250 cost of factoring will be ₹28,33,250. Therefore, Rate of effective cost of factoring is 9.913%

Note 2: Alternatively, if redundancy cost is taken as irrelevant for decision making, then Net Annual cost to the Firm will be ₹9,47,062.5 and Rate of effective cost of factoring will be ₹9,47,062.5/₹1,00,58,343.75 × 100 = 9.416%.

Advice: Since the rate of effective cost of factoring is less than the existing cost of capital, therefore, the proposal is acceptable.

Q2(a): The capital structure of Shine Ltd. as on 31.03.2024 is as under:

Particulars	Amount (₹)
Equity share capital off 10 each	45,00,000
15% Preference share capital of ₹100 each	36,00,000
Retained earnings	32,00,000
13% Convertible Debenture off 100 each	67,00,000
11% Term Loan	20,00,000
Total	2,00,00,000

Additional information:

- Company issued 13% Convertible Debentures of ₹100 each on 01.04.2023 with a maturity period of 6 years. At maturity, the debenture holders will have an option to convert the debentures into equity shares of the company in the ratio of 1:4 (4 shares for each debenture). The market price of the equity share is ₹25 each as on 31.03.2024 and the growth rate of the share is 6% per annum.
- Preference stock, redeemable after eight years, is currently selling at ₹150 per share.
- The prevailing default-risk free interest rate on 10-year GOI treasury bonds is 6%. The average market risk premium is 8% and the Beta (β) of the company is 1.54.
Corporate tax rate is 25% and rate of personal income tax is 20%.

You are required to calculate the cost of:

- Equity Share Capital
- Preference Share Capital
- Convertible Debenture
- Retained Earnings
- Term Loan

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Solution 2(a): (i) Cost of Equity Share capital

As per CAPM Model $K_e = R_f + \beta(R_m - R_f)$

$R_f = 6\%$

$\beta = 1.54$

$R_m - R_f = 8\%$

$K_e = 6\% + 1.54(8\%) = 18.32\%$

(ii) Cost of Preference Share capital

$n = 8$

Net Proceeds (NP) = 150

Redemption Value (RV) = 100

Preference Dividend (PD) = 15

$$K_p = \frac{\frac{PD + (RV - NP)}{2}}{\frac{RV + NP}{2}} = \frac{15 + (100 - 150)}{100 + 150} = 7\%$$

Alternatively, if we take NP as 100 and RV as 100, then solution can be done in the following way:

Cost of Preference Share capital

$n = 8$

Net Proceeds (NP) = 100

$$\begin{aligned}
 \text{Redemption Value (RV)} &= 150 \\
 \text{Preference Dividend (PD)} &= 15 \\
 K_p &= \frac{\frac{\text{PD} + (\text{RV} - \text{NP})}{n}}{\frac{(\text{RV} + \text{NP})}{2}} = \frac{\frac{15 + (150 - 100)}{8}}{\frac{150 + 100}{2}} = 17\%
 \end{aligned}$$

(iii) Cost of convertible debenture

Cash Redemption Value (RV) = 100

Share Redemption Value (RV):

Value of share after 5 years = $25 \times (1.06)^5 = 33.46$

Share Redemption Value (RV) = $33.46 \times 4 = 133.82$

Therefore, investor will choose share redemption.

Redemption Value (RV) = 133.82

Net Proceeds (NP) = 100

$n = 5$

Interest (I) = 13

Tax (t) = 25%

$$K_d = \frac{\frac{I(1 - t) + (\text{RV} - \text{NP})}{n}}{\frac{(\text{RV} + \text{NP})}{2}} = \frac{\frac{13(1 - 0.25) + (133.82 - 100)}{5}}{\frac{(133.82 + 100)}{2}} = 14.13\%$$

(iv) Cost of Retained Earnings

$K_r = K_e (1 - t_p) = 18.32\% \times (1 - 0.20) = 14.66\%$

We can also take cost of equity as cost of retained earnings,

Accordingly, $K_r = K_e = 18.32\%$

(v) Cost of Term Loan

$= 11\% \times (1 - 0.25) = 8.25\%$

Q2(b): Following data is available in respect of Levered and Unlevered companies having same business risk:

Capital employed = ₹2,00,000, EBIT = ₹25,000 and $K_e = 12.5\%$

Sources	Levered Company (₹)	Unlevered Company (₹)
Debt (@8%)	75,000	Nil
Equity	1,25,000	2,00,000

An investor is holding 12% shares in levered company. Calculate the increase in annual earnings of investor if he switches over his holding from Levered to Unlevered company.

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Solution 2(b): (1) Valuation of firms

Particulars	Levered Firm (₹)	Unlevered Firm (₹)
EBIT	25,000	25,000
Less: Interest on debt (8% × ₹75,000)	(6,000)	Nil
Earnings available to Equity shareholders	19,000	25,000
K_e	12.5%	12.5%
Value of Equity (S)	1,52,000	2,00,000
(Earnings available to Equity shareholders/ K_e)		
Debt (D)	75,000	Nil
Value of Firm (V) = (S + D)	2,27,000	2,00,000

Value of Levered company is more than that of unlevered company. Therefore, investor will sell his shares in levered company and buy shares in unlevered company. To maintain the level of risk he will borrow proportionate amount and invest that amount also in shares of unlevered company.

(2) Investment & Borrowings

Particulars	(₹)
Sell shares in Levered company (₹1,52,000 × 12%)	18,240
Borrow money (₹75,000 × 12%)	9,000
Buy shares in Unlevered company	27,240

(3) Change in Return

Particulars	(₹)
Income from shares in Unlevered company ($₹27,240 \times 12.5\%$)	3,405
Less: Interest on loan ($₹9,000 \times 8\%$)	(720)
Net Income from unlevered firm	2,685
Less: Income from Levered firm ($₹18,240 \times 12.5\%$)	(2,280)
Incremental Income due to arbitrage	405

Solution can also be done in the following way:

Valuation of firms

Particulars	Levered Firm (₹)	Unlevered Firm (₹)
EBIT	25,000	25,000
Less: Interest on debt ($8\% \times ₹75,000$)	(6,000)	Nil
Earnings available to Equity shareholders	19,000	25,000
Ke	12.5%	12.5%
Value of Equity (S) (Earnings available to Equity shareholders/Ke)	1,52,000	2,00,000
Debt (D)	75,000	Nil
Value of Firm (V) = S + D	2,27,000	2,00,000

Value of Levered company is more than that of unlevered company. Therefore, investor will sell his shares in levered company and buy shares in unlevered company.

Arbitrage Process:

If investor have 12% shares of levered company, value of investment in equity shares is 12% of ₹1,52,000 i.e. ₹18,240 and return will be 12% of ₹19,000 = ₹2,280.

Alternate Strategy will be:

Sell 12% shares of levered firm for ₹18,240 and borrow 12% of levered firm's debt i.e. ₹9,000 (12% of ₹75,000) and invest the money i.e. 12% in unlevered firm's stock:

Total resources /Money investor have = ₹18,240 + ₹9,000 = ₹27,240 and investor invest 12% of ₹2,00,000 = ₹24,000

Surplus cash available with investor is = ₹27,240 - ₹24,000 = ₹3,240

Investor return = 12% EBIT of unlevered firm - Interest to be paid on borrowed funds

$$= 12\% \text{ of } ₹25,000 - 8\% \text{ of } ₹9,000 = ₹3,000 - ₹720 = ₹2,280$$

Now, return remains the same i.e. ₹2,280 which investor is getting from levered company before investing in unlevered company but still have ₹3,240 excess money available with investor. Hence, investor is better off by doing arbitrage.

Q3(a): HCP Ltd. is a leading manufacturer of railway parts for passenger coaches and freight wagons. Due to high wastage of material and quality issues in production, the General Manager of the company is considering the replacement of machine A with a new CNC machine B. Machine A has a book value of ₹4,80,000 and remaining economic life is 6 years. It could be sold now at ₹1,80,000 and zero salvage value at the end of sixth year. The purchase price of Machine B is ₹24,00,000 with economic life of 6 years. It will require ₹1,40,000 for installation and ₹60,000 for testing. Subsidy of 15% on the purchase price of the machine B will be received from Government at the end of 1st year. Salvage value at the end of sixth year will be ₹3,20,000.

The General manager estimates that the annual savings due to installation of machine B include a reduction of three skilled workers with annual salaries of ₹1,68,000 each, ₹4,80,000 from reduced wastage of materials and defectives and ₹3,50,000 from loss in sales due to delay in execution of purchase orders. Operation of Machine B will require the services of a trained technician with annual salary of ₹3,90,000 and annual operation and maintenance cost will increase by ₹1,54,000. The company's tax rate is 30% and it's required rate of return is 14%. The company follows straight line method of depreciation. Ignore tax savings on loss due to sale of existing machine.

The present value factors at 14% are:

Years	0	1	2	3	4	5	6
PV Factor	1	0.877	0.769	0.675	0.592	0.519	0.456

Required:

- Calculate the Net Present Value and Profitability Index and advise the company for replacement decision.
- Also calculate the discounted pay-back period.

Solution 3(a): Calculation of Net Initial Cash Outflows:

Particulars	(₹)
Cost of new machine	24,00,000
Less: Sale proceeds of existing machine	(1,80,000)
Add: Installation	1,40,000
Add: Testing	60,000
Less: Subsidy from government (15% of 24,00,000) × 0.877	(3,15,720)
Net initial cash outflows	21,04,280

Calculation of Incremental Depreciation

Particulars	(₹)
Depreciation on existing machine (4,80,000/6) (i)	80,000
Depreciation base of New Machine	
Cost of new machine	24,00,000
Add: Installation	1,40,000
Add: Testing	60,000
Less: Subsidy from government	(3,60,000)
Less: Salvage value at the end of 6th year	(3,20,000)
Depreciation base of New Machine	19,20,000
Depreciation on New Machine (19,20,000/6) (ii)	3,20,000
Incremental depreciation [(ii) - (i)]	2,40,000

Computation of Annual Operating Cash flow after tax (CFAT)

Particulars	Amount (₹)	Amount (₹)
Savings in cost		
Cost of 3 skilled workers (1,68,000 × 3)	5,04,000	
Reduced wastage of material	4,80,000	
Saving in loss of sales	3,50,000	
Total		13,34,000
Less: Increase in cost:		
Salary to trained technician	3,90,000	
Increase in annual operation and maintenance cost	1,54,000	
Total		(5,44,000)
Incremental Saving before tax and depreciation		7,90,000
Less: Incremental Depreciation		(2,40,000)
Incremental PBT		5,50,000
Less: Tax @30%		(1,65,000)
PAT		3,85,000
Add: Depreciation		2,40,000
Incremental CFAT		6,25,000

Calculation of NPV

Particulars	Year	Net Cashflow (₹)	PVF @14%	PV (₹)
Net initial cash outflows	0	(24,20,000)	1	(21,04,280)
Incremental CFAT	1 to 6	6,25,000	3.888	24,30,000
Salvage Value of New Machine	6	3,20,000	0.456	1,45,920
PV of inflows				25,75,920
Net Present Value				4,71,640

Profitability Index = $\frac{\text{Sum of discounted cash inflows}}{\text{Initial cash outlay or Total discounted cash outflow (as the case may)}}$
 $= \frac{25,75,920}{21,04,280} = 1.224$

Advise: Since the NPV is positive and PI is greater than 1, the company should replace the machine

Computation of Discounted Payback Period

Year	Cashflow	PVF @ 14%	PV of CFs (₹)	Cumulative PV (₹)
1	6,25,000	0.877	5,48,125	5,48,125
2	6,25,000	0.769	4,80,625	10,28,750

3	6,25,000	0.675	4,21,875	14,50,625
4	6,25,000	0.592	3,70,000	18,20,625
5	6,25,000	0.519	3,24,375	21,45,000
6	9,45,000	0.456	4,30,920	25,75,920

Discounted Payback Period

$$= 4 + \frac{21,04,280 - 18,20,625}{3,24,375} = 4.87 \text{ years}$$

If we take subsidy in cash inflow of 1st year, then solution can also be done in the following way:

Calculation of Net Initial Cash Outflows:

Particulars	(₹)
Cost of new machine	24,00,000
Less: Sale proceeds of existing machine	(1,80,000)
Add: Installation	1,40,000
Add: Testing	60,000
Net initial cash outflows	24,20,000

Note: However, Incremental Depreciation and CFAT will remain same.

Calculation of NPV

Particulars	Year	Net Cashflow (₹)	PVF @14%	PV (₹)
Net initial cash outflows	0	(24,20,000)	1	(24,20,000)
Subsidy	1	3,60,000	0.877	3,15,720
Incremental CFAT	1 to 6	6,25,000	3.888	24,30,000
Salvage Value of New Machine	6	3,20,000	0.456	1,45,920
PV of inflows				28,91,640
Net Present Value				4,71,640

$$\begin{aligned} \text{Profitability Index} &= \frac{\text{Sum of discounted cash in flows}}{\text{Initial cash outlay or Total discounted cash outflow (as the case may)}} \\ &= \frac{28,91,640}{24,20,000} = 1.195 \end{aligned}$$

Advise: Since the NPV is positive and PI is greater than 1, the company should replace the machine

Computation of Discounted Payback Period

Year	Cashflow	PVF @ 14%	PV of CFs (₹)	Cumulative PV (₹)
1	9,85,000	0.877	8,63,845	8,63,845
2	6,25,000	0.769	4,80,625	13,44,470
3	6,25,000	0.675	4,21,875	17,66,345
4	6,25,000	0.592	3,70,000	21,36,345
5	6,25,000	0.519	3,24,375	24,60,720
6	9,45,000	0.456	4,30,920	28,91,640

Discounted Payback Period

$$= 4 + \frac{24,20,000 - 21,36,345}{3,24,375} = 4.87 \text{ years}$$

Q3(b): Vista Limited's retained earnings per share for the year ending 31.03.2023 being 40% is `3.60 per share. Company is foreseeing a growth rate of 10% per annum in the next two years. After that the growth rate is expected to stabilise at 8% per annum. Company will maintain its existing pay-out ratio. If the investor's required rate of return is 15%, Calculate the intrinsic value per share as of date using Dividend Discount model.

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Solution 3(b): As per Dividend discount model, the price of share is calculated as follows:

Retained earning per share = `3.60

$$\text{Dividend per share, } D_0 = \frac{3.60 \times 60\%}{40\%} = `5.40$$

$$P = \frac{D_1}{(1 + K_e)^1} + \frac{D_2}{(1 + K_e)^2} + \frac{D_3}{(K_e - g)} \times \frac{1}{(1 + K_e)^2}$$

Where, P = Price per share K_e = Required rate of return on equity g = Growth rate

$$\begin{aligned} P &= \frac{5.4 \times 1.1}{(1 + 0.15)^1} + \frac{5.94 \times 1.1}{(1 + 0.15)^2} + \frac{6.534 \times 1.08}{(0.15 - 0.08)} \times \frac{1}{(1 + 0.15)^2} \\ &= 5.17 + 4.94 + 76.23 = `86.33 \end{aligned}$$

Intrinsic value of share is `86.33

Q4(a): State with brief reasons whether the following statements are true or false:

- (i) Maximising Market Price Per Share (MPS) as the financial objective which maximises the wealth of shareholders.
- (ii) A combination of lower risk and higher return is known as risk return trade off and at this level of risk-return, profit is maximum.
- (iii) Financial distress is a position when accounting profits of a firm are sufficient to meet its long-term obligations.
- (iv) Angel investor is one who provides funds for start-up in exchange for an ownership/equity.

(CA Inter May 2024)

Solution 4(a):

	Statement	True or False	Reason
(i)	Maximising Market Price Per Share (MPS) as the financial objective which maximises the wealth of shareholders.	True	Maximising MPS or Market value as the financial objective will ensure the maximising shareholder's wealth.
(ii)	A combination of lower risk and higher return is known as risk-return trade off and at this level of risk-return, profit is maximum.	False	There is a direct relationship between risk and profit. Higher the risk, higher is the possibility of profits. Stockholders expect greater returns from investments of higher risk and vice-versa.
(iii)	Financial distress is a position when accounting profits of a firm are sufficient to meet its long-term obligations.	False	Financial distress is a position where Cash inflows of a firm are inadequate to meet all its current obligations.
(iv)	Angel investor is one who provides funds for start-up in exchange for an ownership/ equity.	True	Angel Financing is a form of an equity-financing where an angel investor provides capital for start-up or expansion, in exchange for an ownership/equity in the company.

Q4(b): ABC Ltd. is approaching the banks for financing its business activity. You are required to describe any four forms of bank credit for the consideration of the company.

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Solution 4(b): Some of the forms of bank credit are:

- (i) **Cash Credit:** This facility will be given by the banker to the customers by giving certain amount of credit facility on continuous basis. The borrower will not be allowed to exceed the limits sanctioned by the bank.
- (ii) **Bank Overdraft:** It is a short-term borrowing facility made available to the companies in case of urgent need of funds. The banks will impose limits on the amount they can lend. When the borrowed funds are no longer required they can quickly and easily be repaid. The banks issue overdrafts with a right to call them in at short notice.
- (iii) **Bills Discounting:** The Company which sells goods on credit will normally draw a bill on the buyer who will accept it and sends it to the seller of goods. The seller, in turn discounts the bill with his banker. The banker will generally earmark the discounting bill limit.
- (iv) **Bills Acceptance:** To obtain finance under this type of arrangement a company draws a bill of exchange on bank. The bank accepts the bill thereby promising to pay out the amount of the bill at some specified future date.
- (v) **Line of Credit:** Line of Credit is a commitment by a bank to lend a certain amount of funds on demand specifying the maximum amount.
- (vi) **Letter of Credit:** It is an arrangement by which the issuing bank on the instructions of a customer or on its own behalf undertakes to pay or accept or negotiate or authorises another bank to do so against stipulated documents subject to compliance with specified terms and conditions.
- (vii) **Bank Guarantees:** Bank guarantee is one of the facilities that the commercial banks extend on behalf of their clients in favour of third parties who will be the beneficiaries of the guarantees.
- (viii) **Short Term Loans:** In a loan account, the entire advance is disbursed at one time either in cash or by transfer to the current account of the borrower. It is a single advance and given against securities like shares, government securities, life insurance policies and fixed deposit receipts, etc.
- (ix) **Clean Overdrafts:** Request for clean advances are entertained only from parties which are financially sound and reputed for their integrity. The bank has to rely upon the personal security of the borrowers.

- (x) **Advances against goods:** Goods are charged to the bank either by way of pledge or by way of hypothecation. Goods include all forms of movables which are offered to the bank as security.
- (xi) Usance bills maturing at a future date or sight are discounted by the banks for approved parties. The borrower is paid the present worth and the bank collects the full amount on maturity.
- (xii) **Advance against documents of title to goods:** A document becomes a document of title to goods when its possession is recognised by law or business custom as possession of the goods like bill of lading, dock warehouse keeper's certificate, railway receipt, etc. An advance against the pledge of such documents is an advance against the pledge of goods themselves.
- (xiii) **Advance against supply of bills:** Advances against bills for supply of goods to government or semi-government departments against firm orders after acceptance of tender fall under this category. It is this debt that is assigned to the bank by endorsement of supply bills and executing irrevocable power of attorney in favour of the banks for receiving the amount of supply bills from the Government departments.

Q4(c): Discuss the relevance of Payback reciprocal in capital budgeting decisions.

(CA Inter May 2024)

Solution 4(c): Reciprocal of the payback would be a close approximation of the Internal Rate of Return if the life of the project is at least twice the payback period and the project generates equal amount of the annual cash inflows. The payback reciprocal is a helpful tool for quick estimation of rate of return of a project provided its life is at least twice the payback period.

It may be calculated as follows:

$$\text{Payback Reciprocal} = \text{Average annual cash flows} / \text{initial Investment}$$

Or

$$\text{Payback Reciprocal} = 1 / \text{payback period}$$

(OR)

Or Q4(c): Explain the features of crowd funding.

(CA Inter May 2024)

Or Solution 4(c): Crowd funding: crowdfunding means raising money for an individual or organisation from a group of people to fund a project, typically via internet (social media and crowdfunding websites). It generally involves collecting funds from family, friends, strangers, corporates and many more in exchange of equity (known as Equity funding), loans (known as P2P lending) or nothing at all (i.e. donation). This source of funding also helps start-up to substantiate demand for their product before entering into production.

In the crowdfunding process, three parties are involved i.e. fund raiser, mediator and fund investor. The platforms (mediator) may also charge certain fees in the form of processing fee, transaction fee, etc. either as a fixed amount or a percentage or in combination of both.