

PAPER – 2 : STRATEGIC FINANCIAL MANAGEMENT

Question No.1 is compulsory.

Attempt any five out of the remaining six questions.

Wherever appropriate, suitable assumptions should be made and indicated in the answer by the candidate.

Working notes should form part of the answer.

Question 1

(a) *The following are the data on five mutual funds:*

<i>Fund</i>	<i>Return</i>	<i>Standard Deviation</i>	<i>Beta</i>
A	15	7	1.25
B	18	10	0.75
C	14	5	1.40
D	12	6	0.98
E	16	9	1.50

You are required to compute Reward to Volatility Ratio and rank these portfolio using:

- ◆ *Sharpe method and*
- ◆ *Treynor's method*

assuming the risk free rate is 6%.

(5 Marks)

(b) *Bright Computers Limited is planning to issue a debenture series with a face value of ₹ 1,000 each for a term of 10 years with the following coupon rates:*

<i>Years</i>	<i>Rates</i>
1-4	8%
5-8	9%
9-10	13%

The current market rate on similar debenture is 15% p.a. The company proposes to price the issue in such a way that a yield of 16% compounded rate of return is received by the investors. The redeemable price of the debenture will be at 10% premium on maturity. What should be the issue price of debenture?

Pv @ 16% for 1 to 10 years are: .862, .743, .641, .552, .476, .410, .354, .305, .263, .227 respectively.

(5 Marks)

(c) Calculate the value of share of Avenger Ltd. from the following information:

Equity capital of company	₹ 1,200 crores
Profit of the company	₹ 300 crores
Par value of share	₹ 40 each
Debt ratio of company	25
Long run growth rate of the company	8%
Beta 0.1; risk free interest rate	8.7%
Market returns	10.3%
Change in working capital per share	₹ 4
Depreciation per share	₹ 40
Capital expenditure per share	₹ 48

(5 Marks)

(d) Fresh Bakery Ltd.'s share price has suddenly started moving both upward and downward on a rumour that the company is going to have a collaboration agreement with a multinational company in bakery business. If the rumour turns to be true, then the stock price will go up but if the rumour turns to be false, then the market price of the share will crash. To protect from this an investor has purchased the following call and put option:

- (i) One 3 months call with a striking price of ₹ 52 for ₹ 2 premium per share.
- (ii) One 3 months put with a striking price of ₹ 50 for ₹ 1 premium per share.

Assuming a lot size of 50 shares, determine the followings:

- (1) The investor's position, if the collaboration agreement push the share price to ₹ 53 in 3 months.
- (2) The investor's ending position, if the collaboration agreement fails and the price crashes to ₹ 46 in 3 months time.

(5 Marks)

Answer

(a) Sharpe Ratio $S = (R_p - R_f)/\sigma_p$

Treynor Ratio $T = (R_p - R_f)/\beta_p$

Where,

R_p = Return on Fund

R_f = Risk-free rate

σ_p = Standard deviation of Fund

β_p = Beta of Fund

Reward to Variability (Sharpe Ratio)

Mutual Fund	R _p	R _f	R _p – R _f	σ _p	Reward to Variability	Ranking
A	15	6	9	7	1.285	2
B	18	6	12	10	1.20	3
C	14	6	8	5	1.60	1
D	12	6	6	6	1.00	5
E	16	6	10	9	1.11	4

Reward to Volatility (Treynor Ratio)

Mutual Fund	R _p	R _f	R _p – R _f	β _p	Reward to Volatility	Ranking
A	15	6	9	1.25	7.2	2
B	18	6	12	0.75	16	1
C	14	6	8	1.40	5.71	5
D	12	6	6	0.98	6.12	4
E	16	6	10	1.50	6.67	3

(b) Present Value of Debenture

Year	Cash Outflow (₹)	PVF@16%	Present Value (₹)
1-4	80	2.798	223.84
5-8	90	1.545	139.05
9-10	130	0.490	63.70
10	1100	0.227	249.70
			676.29

$$(c) \text{ No. of Shares} = \frac{\text{₹ } 1200 \text{ crore}}{\text{₹ } 40} = 30 \text{ Crores}$$

$$\text{EPS} = \frac{\text{PAT}}{\text{No. of shares}}$$

$$\text{EPS} = \frac{\text{₹ } 300 \text{ crore}}{30 \text{ crore}} = \text{₹ } 10.00$$

$$\text{FCFE} = \text{Net income} - [(1-b) (\text{capex} - \text{dep}) + (1-b) (\Delta \text{WC})]$$

$$\text{FCFE} = 10.00 - [(1 - 0.25) (48 - 40) + (1 - 0.25) (4)]$$

$$= 10.00 - [6.00 + 3.00] = 1.00$$

$$\text{Cost of Equity} = R_f + \beta (R_m - R_f)$$

$$= 8.7 + 0.1 (10.3 - 8.7) = 8.86\%$$

$$P_0 = \frac{\text{FCFE}(1+g)}{K_e - g} = \frac{1.00(1.08)}{0.0886 - 0.08} = \frac{1.08}{0.0086} = ₹ 125.58$$

(d) Cost of Call and Put Options

$$= (\₹ 2 \text{ per share}) \times (50 \text{ share call}) + (\₹ 1 \text{ per share}) \times (50 \text{ share put})$$

$$= ₹ 2 \times 50 + 1 \times 50$$

$$= ₹ 150$$

- (i) Price increases to ₹53. Since the market price is higher than the strike price of the call, the investor will exercise it.

$$\text{Ending position} = (- ₹ 150 \text{ cost of 2 option}) + (\₹ 1 \text{ per share gain on call}) \times 50$$

$$= - ₹ 150 + 50$$

$$\text{Net Loss} = - ₹ 100$$

- (ii) The price of the stock falls to ₹46. Since the market price is lower than the strike price, the investor may not exercise the call option.

$$\text{Ending Position} = (- ₹150 \text{ cost of 2 options}) + (\₹4 \text{ per stock gain on put}) \times 50$$

$$= - ₹150 + 200$$

$$\text{Gain} = ₹50$$

Question 2

- (a) MNL Ltd. is considering investment in one of three mutually exclusive projects: AB, BC, CD. The company's cost of capital is 15% and the risk-free interest rate is 10%. The income-tax rate for the company is 34%. MNL has gathered the following basic cash flows and risk index data for each project:

Projects	AB	BC	CD
Initial Investment	12,00,000	10,00,000	15,00,000
Cash Inflows – Year			
1	5,00,000	5,00,000	4,00,000
2	5,00,000	4,00,000	5,00,000
3	5,00,000	5,00,000	6,00,000
4	5,00,000	3,00,000	10,00,000
Risk Index	1.80	1.00	0.60

Using the Risk Adjusted Discount Rate, determine the risk adjusted NPV for each of the project. Which project should be accepted by the company? (10 Marks)

- (b) Calculate the NAV of a regular income scheme on per unit basis of Red Bull mutual fund from the following information:

Particulars	₹ in crores
Listed shares at cost (ex-dividend)	30
Cash in hand	0.75
Bonds & Debentures at cost (ex-interest)	2.30
Of these, bonds not listed & not quoted	1.0
Other fixed interest securities at cost	2.50
Dividend accrued	0.8
Amount payable on shares	8.32
Expenditure accrued	1.00
Value of listed bonds & debentures at NAV date	10

Number of units (₹10 face value) 30 lakhs
 Current realizable value of fixed income securities of face value of ₹ 100 is 106.50
 The listed shares were purchased when index was 7100
 and the Present index is 9000
 Unlisted bonds and debentures are at cost. Other fixed interest securities are also at cost. (6 Marks)

Answer

- (a) (i) The risk free rate of interest and risk factor for each of the projects are given. The risk adjusted discount rate (RADR) for different projects can be found on the basis of CAPM as follows:

$$\text{Required Rate of Return} = I_{RF} + (k_e - I_{RF}) \text{ Risk Factor}$$

$$\text{For AB : RADR} = 0.10 + (0.15 - 0.10) 1.80 = 0.19 \text{ or } 19\%$$

$$\text{For BC : RADR} = 0.10 + (0.15 - 0.10) 1.00 = 0.15 \text{ or } 15\%$$

$$\text{For CD : RADR} = 0.10 + (0.15 - 0.10) 0.60 = 0.13 \text{ or } 13\%$$

- (ii) The three projects can now be evaluated at 19%, 15% and 13% discount rate as follows:

Project AB

Annual Inflows	₹ 5,00,000
PVAF (19 %, 4)	2.639
PV of Inflows (₹ 5,00,000 x 2.639)	₹ 13,19,500
Less: Cost of Investment	<u>₹ 12,00,000</u>
Net Present Value	<u>₹ 1,19,500</u>

Project BC

Year	Cash Inflow (₹)	PVF (15%,n)	PV (₹)
1	5,00,000	0.870	4,35,000
2	4,00,000	0.756	3,02,400
3	5,00,000	0.658	3,29,000
4	3,00,000	0.572	<u>1,71,600</u>
Total Present Value			12,38,000
Less: Cost of Investment			<u>10,00,000</u>
Net Present Value			<u>2,38,000</u>

Project CD

Year	Cash Inflow (₹)	PVF (13%,n)	PV (₹)
1	4,00,000	0.885	3,54,000
2	5,00,000	0.783	3,91,500
3	6,00,000	0.693	4,15,800
4	10,00,000	0.613	<u>6,13,000</u>
Total Present Value			17,74,300
Less: Cost of Investment			<u>15,00,000</u>
Net Present Value			<u>2,74,300</u>

Project CD has highest NPV. So, it should be accepted by the firm.

(b)

Particulars	Adjusted Value ₹ crores
Equity Shares (30 x 9000/ 7100)	38.028
Cash in hand	0.75
Bonds and debentures not listed	1.00

Bonds and debentures listed	10.00
Dividends accrued	0.80
Fixed income securities	2.50
Sub total assets (A)	53.078
Less: Liabilities	
Amount payable on shares	8.32
Expenditure accrued	1.00
Sub total liabilities (B)	9.32
Net Assets Value (A) – (B)	43.758
No. of units	30,00,000
Net Assets Value per unit (₹ 43.758 crore / 30,00,000)	₹ 145.86

Question 3

- (a) *Hi-tech Software Ltd. (HSL) has a complete "Software Developing Unit" costing ₹ 70 lakhs. It is this type of block of assets that have no book value as at 31st March, 2016 as it entitled to 100% rate of depreciation under Income Tax Act, 1961. The company is facing acute fund crunch as it lacks order from Middle East and was toying with the idea of taking term loan. Eastern Financier (EF), a reputed finance company, gave the idea of "buy & lease back" to tide over the fund crunch. EF agreed to buy the software developing unit at ₹ 50 lakhs and lease it back to HSL for lease rental of ₹ 9 lakhs p.a. for a period of 5 years. HSL decides to put the entire net proceeds in a fixed deposit at a nationalized bank at yearly interest of 8.75% for 5 years to generate cash flow much needed for day to day operation.*

Central Financier (CF) another financier, gave a proposal of selling a similar software developing unit at ₹ 30 lakhs to HSL and they will buy back after 5 years at a price of ₹ 5 lakhs provided the Annual Maintenance Contract (AMC) @ ₹ 1.50 lakhs per annum is entrusted to them. The new machine is also entitled to 100% rate of depreciation under Income Tax Act, 1961. CF also agreed to buy the existing software developing unit at ₹ 50 lakhs. HSL would utilize the net sale proceeds to finance this machine.

The marginal rate of tax of HSL is 34% and its weighted average cost of capital is 12%.

Which offer HSL should accept?

Year	1	2	3	4	5
Discounting factor @ 12%	.893	.797	.712	.636	.567

(8 Marks)

- (b) *SAM Ltd. has just paid a dividend of ₹ 2 per share and it is expected to grow @ 6% p.a. After paying dividend, the Board declared to take up a project by retaining the next three annual dividends. It is expected that this project is of same risk as the existing projects.*

The results of this project will start coming from the 4th year onward from now. The dividends will then be ₹ 2.50 per share and will grow @ 7% p.a.

An investor has 1,000 shares in SAM Ltd. and wants a receipt of atleast ₹ 2,000 p.a. from this investment.

Show that the market value of the share is affected by the decision of the Board. Also show as to how the investor can maintain his target receipt from the investment for first 3 years and improved income thereafter, given that the cost of capital of the firm is 8%.

(8 Marks)

Answer

(a) Eastern Financier (EF) Proposal

Working Notes:

(i) Interest on Fixed Deposit

	₹
Sale Price	50,00,000
Less: Tax @ 34%	17,00,000
Net Proceeds	33,00,000
Interest on sale proceeds = ₹ 33,00,000 x 8.75%	2,88,750

(ii) Calculation of Yearly Net Cash Outflow

	₹
Payment of Lease Rent	9,00,000
Interest on FD @ 8.75%	2,88,750
	6,11,250
Less: Tax @ 34%	2,07,825
Yearly Net Outflow	4,03,425

Present Value of Cash flows

Year	Particulars	Amount (₹)	PVF (12%,n)	Present Value (₹)
0	Sale of Software	50,00,000	1.00	50,00,000
0	Investing in FD	- 33,00,000	1.00	- 33,00,000
0	Tax on STCG	- 17,00,000	1.00	- 17,00,000
1-5	Annual Net Outflow	- 4,03,425	3.605	- 14,54,347
5	Release of FD	33,00,000	0.567	18,71,100
				4,16,753

Central Financier (CF) Proposal

Working Notes:

(i) Sale Price net of Tax Loss on Short term Capital Gain

	₹
Sale Price	50,00,000
Less: Tax @ 34%	17,00,000
Net Proceeds	33,00,000
Cost of new machine	30,00,000
Net Inflow	3,00,000

(ii) Calculation of Yearly Net Cash Outflow

	₹
Maintenance Cost	1,50,000
Less: Tax @ 34%	51,000
Yearly Net Outflow	99,000

(iii) Terminal Year Cash Flow

	₹
Buyback price of Software	5,00,000
Less: Tax @ 34%	1,70,000
Yearly Net Outflow	3,30,000

Present Value of Cash flows

Year	Particulars	Amount (₹)	PVF (12%,n)	Present Value (₹)
0	Sale of Software	33,00,000	1.00	33,00,000
0	Purchase of Software	- 30,00,000	1.00	- 30,00,000
1	Tax on Depreciation	10,20,000	0.893	9,10,860
1-5	Annual Net Outflow	- 99,000	3.605	- 3,56,895
5	Terminal Year Cash flow	3,30,000	0.567	1,87,110
				10,41,075

Decision: Since NPV is higher in case of proposal from CF same should be accepted.

$$\begin{aligned}
 \text{(b) Value of share at present} &= \frac{D_1}{k_e - g} \\
 &= \frac{2(1.06)}{0.08 - 0.06} = ₹ 106
 \end{aligned}$$

However, if the Board implement its decision, no dividend would be payable for 3 years and the dividend for year 4 would be ₹ 2.50 and growing at 7% p.a. The price of the share, in this case, now would be:

$$P_0 = \frac{2.50}{0.08 - 0.07} \times \frac{1}{(1 + 0.08)^3} = ₹ 198.46$$

So, the price of the share is expected to increase from ₹ 106 to ₹ 198.45 after the announcement of the project. The investor can take up this situation as follows:

Expected market price after 3 years	$= \frac{2.50}{0.08 - 0.07}$	₹ 250.00
Expected market price after 2 years	$\frac{2.50}{0.08 - 0.07} \times \frac{1}{(1 + 0.08)}$	₹ 231.48
Expected market price after 1 years	$\frac{2.50}{0.08 - 0.07} \times \frac{1}{(1 + 0.08)^2}$	₹ 214.33

In order to maintain his receipt at ₹ 2,000 for first 3 year, he would sell

10 shares in first year @ ₹ 214.33 for	₹ 2,143.30
9 shares in second year @ ₹ 231.48 for	₹ 2,083.32
8 shares in third year @ ₹ 250 for	₹ 2,000.00

At the end of 3rd year, he would be having 973 shares valued @ ₹ 250 each i.e. ₹ 2,43,250. On these 973 shares, his dividend income for year 4 would be @ ₹ 2.50 i.e. ₹ 2,432.50.

So, if the project is taken up by the company, the investor would be able to maintain his receipt of at least ₹ 2,000 for first three years and would be getting increased income thereafter.

Question 4

- (a) XYZ Ltd. paid a dividend of ₹ 2 for the current year. The dividend is expected to grow at 40% for the next 5 years and at 15% per annum thereafter. The return on 182 days T-bills is 11% per annum and the market return is expected to be around 18% with a variance of 24%.

The co-variance of XYZ's return with that of the market is 30%. You are required to calculate the required rate of return and intrinsic value of the stock. (8 Marks)

- (b) Abinash is holding 5,000 shares of Future Group Limited. Presently the rate of dividend being paid by the company is ₹ 5 per share and the share is being sold at ₹ 50 per share in the market. However, several factors are likely to change during the course of the year as indicated below:

	Existing	Revised
Risk free rate	12.5%	10%
Market risk premium	6%	4.8%
Expected growth rate	5%	8%
Beta value	1.5	1.25

In view of the above factors whether Abinash should buy, hold or sell the shares? Narrate the reason for the decision to be taken. (8 Marks)

Answer

(a) $\beta = \frac{\text{Covariance of Market Return and Security Return}}{\text{Variance of Market Return}}$

$\beta = \frac{30\%}{24\%} = 1.25$

Expected Return = $R_f + \beta(R_m - R_f)$
 = $11\% + 1.25(18\% - 11\%)$
 = $11\% + 8.75\% = 19.75\%$

Intrinsic Value

Year	Dividend (₹)	PVF (19.75%,n)	Present Value (₹)
1	2.80	0.835	2.34
2	3.92	0.697	2.73
3	5.49	0.582	3.19
4	7.68	0.486	3.73
5	10.76	0.406	4.37
			16.36

PV of Terminal Value = $\frac{10.76(1.15)}{0.1975 - 0.15} \times 0.406 = ₹ 105.77$

Intrinsic Value = ₹ 16.36 + ₹ 105.77 = ₹ 122.13

(b) Cost of Equity as per CAPM

$$= R_f + \beta(R_m - R_f)$$

$$\text{Existing rate of return} \quad 12.5\% + 1.5 \times 6\% = 21.5\%$$

$$\text{Revised rate of return} \quad 10.0\% + 1.25 \times 4.80\% = 16.00\%$$

Price of share (Original)

$$P_0 = \frac{D_1}{k_e - g} \text{ or } \frac{D_0(1+g)}{k_e - g}$$

$$= \frac{5(1.05)}{0.215 - 0.05} = \frac{5.25}{0.165} = ₹ 31.82$$

Price of share (Revised)

$$= \frac{5(1.08)}{0.16 - 0.08} = \frac{5.40}{0.08} = ₹ 67.50$$

In case of existing market price of ₹ 50 per share, rate of return (21.5%) and possible equilibrium price of share at ₹ 31.82, this share needs to be sold because the share is overpriced (50 – 31.82) by ₹ 18.18. However, under the changed scenario where growth of dividend has been revised at 8% and the return though decreased at 16% but the possible price of share is to be at ₹ 67.50 and therefore, in order to expect price appreciation to ₹ 67.50 the investor should hold / buy the share, assuming other things remaining the same.

Question 5

(a) Following information is given:

Exchange rate-

Canadian dollar 0.666 per DM (spot)

Canadian Dollar 0.671 per DM (3 months)

Interest rate –

DM 7.5% p.a.

Canadian Dollar - 9.5% p.a.

To take the possible arbitrage gains, what operations would be carried out? (8 Marks)

(b) ABC Ltd. of UK has exported goods worth Can \$ 5,00,000 receivable in 6 months. The exporter wants to hedge the receipt in the forward market. The following information is available:

Spot Exchange Rate

Can \$ 2.5/£

Interest Rate in UK 12%

Interest Rate In Canada 15%

The forward rates truly reflect the interest rates differential. Find out the gain/loss to UK exporter if Can \$ spot rates (i) declines 2%, (ii) gains 4% or (iii) remains unchanged over next 6 months. (8 Marks)

Answer

- (a) In this case, DM is at a premium against the Can\$.

$$\text{Premium} = [(0.671 - 0.666) / 0.666] \times (12/3) \times 100 = 3.003 \text{ per cent}$$

$$\text{Interest rate differential} = 9.50\% - 7.50\% = 2 \text{ per cent.}$$

Since the interest rate differential is smaller than the premium, it will be profitable to place money in Deutschmarks the currency whose 3-months interest is lower.

The following operations are carried out:

- (i) Borrow Can\$ 1000 at 9.5 per cent for 3- months;
 (ii) Change this sum into DM at the spot rate to obtain DM
 $= (1000/0.666) = 1501.50$
 (iii) Place DM 1501.50 in the money market for 3 months to obtain a sum of DM

Principal:	1501.50
Add: Interest @ 7.50% for 3 months =	<u>28.15</u>
Total	<u>1529.65</u>

- (iv) Sell DM at 3-months forward to obtain Can\$ = $(1529.65 \times 0.671) = 1026.39$

- (v) Refund the debt taken in Can\$ with the interest due on it, i.e.,

	Can\$
Principal	1000.00
Add: Interest @9.5% for 3 months	<u>23.75</u>
Total	<u>1023.75</u>

$$\text{Net arbitrage gain} = 1026.39 - 1023.75 = \text{Can\$ } 2.64$$

- (b) Forward Rate = $\frac{2.50 (1 + 0.075)}{(1 + 0.060)} = \text{Can\$ } 2.535/\text{£}$

- (i) If spot rate decline by 2%

$$\text{Spot Rate} = \text{Can\$ } 2.50 \times 1.02 = \text{Can\$ } 2.55/\text{£}$$

	£
£ receipt as per Forward Rate (Can \$ 5,00,000/ Can\$ 2.535)	1,97,239
£ receipt as per Spot Rate (Can \$ 5,00,000/ Can\$ 2.55)	1,96,078
Gain due to forward contract	1,161

(ii) If spot rate gains by 4%

$$\text{Spot Rate} = \text{Can\$ } 2.50 \times 0.96 = \text{Can\$ } 2.40/\text{£}$$

	£
£ receipt as per Forward Rate (Can \$ 5,00,000/ Can\$ 2.535)	1,97,239
£ receipt as per Spot Rate (Can \$ 5,00,000/ Can\$ 2.40)	2,08,333
Loss due to forward contract	11,094

(iii) If spot rate remains unchanged

	£
£ receipt as per Forward Rate (Can \$ 5,00,000/ Can\$ 2.535)	1,97,239
£ receipt as per Spot Rate (Can \$ 5,00,000/ Can\$ 2.50)	2,00,000
Loss due to forward contract	2,761

Question 6

(a) Kanpur Shoe Ltd. is having sluggish sales during the last few years resulting in drastic fall in market share and profit. The marketing consultant has drawn out a new marketing strategy that will be valid for next four years. If the new strategy is adopted, it is expected that sales will grow @ 20% per year over the previous year for the coming two years and @ 30% from the third year. Other parameters like gross profit margin, asset turnover ratio, the capital structure and the rate of Income tax @ 30% will remain unchanged. Depreciation would be 10% of the net fixed assets at the beginning of the year. The targeted return of the company is 15%.

The financials of the company for the just concluded financial year 2015-16 are given below:

Income Statement	Amount (₹)
Turnover	2,00,000
Gross margin (20%)	40,000
Admin, selling & distribution exp (10%)	20,000
PBT	20,000
Tax (30%)	6,000
PAT	14,000

Balance Sheet Information	
Fixed Assets	80,000
Current Assets	40,000
Equity share capital	1,20,000

You are required to assess the incremental value that will accrue subsequent to the adoption of the new marketing strategy and advise the Board accordingly.

Pv @ 15% for 1, 2 & 3 years are: 0.870, 0.756, 0.658 respectively. (8 Marks)

- (b) The CEO of a company thinks that shareholders always look for EPS. Therefore he considers maximization of EPS as his company's objective. His company's current Net Profits are ₹ 80.00 lakhs and P/E multiple is 10.5. He wants to buy another firm which has current income of ₹ 15.75 lakhs & P/E multiple of 10.

What is the maximum exchange ratio which the CEO should offer so that he could keep EPS at the current level, given that the current market price of both the acquirer and the target company are ₹ 42 and ₹ 105 respectively?

If the CEO borrows funds at 15% and buys out Target Company by paying cash, how much should he offer to maintain his EPS? Assume tax rate of 30%. (8 Marks)

Answer

(a)

Projected Balance Sheet	Year 1	Year 2	Year 3	Year 4
Fixed Assets (40%) of Sales	96,000	1,15,200	1,49,760	1,94,688
Current Assets (20%) of Sales	48,000	57,600	74,880	97,344
Total Assets	1,44,000	1,72,800	2,24,640	2,92,032
Equity	1,44,000	1,72,800	2,24,640	2,92,032

Projected Cash Flows:-

	Year 1	Year 2	Year 3	Year 4
Sales	2,40,000	2,88,000	3,74,400	4,86,720
PBT (10%) of sale	24,000	28,800	37,440	48,672
PAT (70%)	16,800	20,160	26,208	34,070
Depreciation	8,000	9,600	11,520	14,976
Addition to Fixed Assets	24,000	28,800	46,080	59,904
Increase in Current Assets	8,000	9,600	17,280	22,464
Operating cash flow	(7,200)	(8,640)	(25,632)	(33,322)

P V of Projected Cash Flows:-

Present value of Projected Cash Flows:-

Cash Flows	PV at 15%	PV
-7,200	0.870	-6,264.00
-8,640	0.756	-6,531.84
-25,632	0.658	<u>-16,865.86</u>
		-29,661.70

Residual Value $- 33,322/0.15 = -2,22,147$

Present value of Residual value = $-2,22,147/(1.15)^3$

= $-2,22,147/1.521$ = -1,46,065

Total shareholders' value = $-29,661.70 - 1,46,065$ = -1,75,726.70

Pre strategy value = $14,000 / 0.15$ = 93,333.33

∴ Value of strategy = $-1,75,726.70 + 93,333.33$ = -82,393.37

Conclusion: The strategy is not financially viable

(b) (i)

	Acquirer Company	Target Company
Net Profit	₹ 80 lakhs	₹ 15.75 lakhs
PE Multiple	10.50	10.00
Market Capitalization	₹ 840 lakhs	₹ 157.50 lakhs
Market Price	₹ 42	₹ 105
No. of Shares	20 lakhs	1.50 lakhs
EPS	₹ 4	₹ 10.50

Maximum Exchange Ratio 4 : 10.50 or 1 : 2.625

Thus, for every one share of Target Company 2.625 shares of Acquirer Company.

(ii) Let x lakhs be the amount paid by Acquirer company to Target Company. Then to maintain same EPS i.e. ₹ 4 the number of shares to be issued will be:

$$\frac{(80 \text{ lakhs} + 15.75 \text{ lakhs}) - 0.70 \times 15\% \times x}{20 \text{ lakhs}} = 4$$

$$\frac{95.75 - 0.105x}{20} = 4$$

$x = ₹ 150$ lakhs

Thus, ₹ 150 lakhs shall be offered in cash to Target Company to maintain same EPS.

Question 7

Write short notes on any **four** of the following:

- Distinguish between Investment Bank and Commercial Bank.
- Horizontal merger and Vertical merger.
- Distinguish between Money market and Capital market.
- Operations in foreign exchange market are exposed to number of risks.
- Interface of financial policy and strategic management. (4 x 4 = 16 Marks)

Answer

- (a) The fundamental differences between an investment bank and a commercial bank can be outlined as follows:

Investment Banks	Commercial Banks
1. Investment Banks help their clients in raising capital by acting as an intermediary between the buyers and the sellers of securities (stocks or bonds)	1. Commercial Banks are engaged in the business of accepting deposits from customers and lending money to individuals and corporate
2. Investment Banks do not take deposits from customers	2. Commercial banks can legally take deposits from customers.
3. The Investment Banks do not own the securities and only act as an intermediary for smooth transaction of buying and selling securities.	3. Commercial Banks own the loans granted to their customers.
4. Investment Banks earn underwriting commission	4. Commercial banks earn interest on loans granted to their customers.

- (b) (i) **Horizontal Merger:** The two companies which have merged are in the same industry, normally the market share of the new consolidated company would be larger and it is possible that it may move closer to being a monopoly or a near monopoly to avoid competition.
- (ii) **Vertical Merger:** This merger happens when two companies that have 'buyer-seller' relationship (or potential buyer-seller relationship) come together.

- (c) The capital market deals in financial assets. Financial assets comprises of shares, debentures, mutual funds etc. The capital market is also known as stock market.

Stock market and money market are two basic components of Indian financial system. Capital market deals with long and medium term instruments of financing while money market deals with short term instruments.

Some of the points of distinction between capital market and money market are as follows:

	Money Market	Capital Market
(i)	There is no classification between primary market and secondary market	There is a classification between primary market and secondary market.
(ii)	It deals for funds of short-term requirement (less than a year).	It deals with funds of long-term requirement (more than 1 year).
(iii)	Money market instruments include interbank call money, notice money upto 14 days, short-term deposits upto three months, commercial paper, 91 days treasury bills.	Capital Market instruments are shares and debt instruments.
(iv)	Money market participants are banks, financial institution, RBI and Government.	Capital Market participants include retail investors, institutional investors like Mutual Funds, Financial Institutions, corporate and banks.
(v)	Supplies funds for working capital requirement.	Supplies funds for fixed capital requirements.
(vi)	Each single instrument is of a large amount.	Each single instrument is of a small amount.
(vii)	Risk involved in money market is less due to smaller term of maturity. In short term the risk of default is less.	Risk is higher
(viii)	Transactions take place over phone calls. Hence there is no formal place for transactions.	Transactions are at a formal place viz. the stock exchange.
(ix)	The basic role of money market is liquidity adjustment.	The basic role of capital market includes putting capital to work, preferably to long term, secure and productive employment.
(x)	Closely and directly linked with the	The Capital market feels the

	Central Bank of India	influence of the Central Bank but only indirectly and through the money market
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- (d) A firm dealing with foreign exchange may be exposed to foreign currency exposures. The exposure is the result of possession of assets and liabilities and transactions denominated in foreign currency. When exchange rate fluctuates, assets, liabilities, revenues, expenses that have been expressed in foreign currency will result in either foreign exchange gain or loss. A firm dealing with foreign exchange may be exposed to the following types of risks:
- (i) **Transaction Exposure:** A firm may have some contractually fixed payments and receipts in foreign currency, such as, import payables, export receivables, interest payable on foreign currency loans etc. All such items are to be settled in a foreign currency. Unexpected fluctuation in exchange rate will have favourable or adverse impact on its cash flows. Such exposures are termed as transactions exposures.
 - (ii) **Translation Exposure:** The translation exposure is also called accounting exposure or balance sheet exposure. It is basically the exposure on the assets and liabilities shown in the balance sheet and which are not going to be liquidated in the near future. It refers to the probability of loss that the firm may have to face because of decrease in value of assets due to devaluation of a foreign currency despite the fact that there was no foreign exchange transaction during the year.
 - (iii) **Economic Exposure:** Economic exposure measures the probability that fluctuations in foreign exchange rate will affect the value of the firm. The intrinsic value of a firm is calculated by discounting the expected future cash flows with appropriate discounting rate. The risk involved in economic exposure requires measurement of the effect of fluctuations in exchange rate on different future cash flows.
- (e) The interface of strategic management and financial policy will be clearly understood if we appreciate the fact that the starting point of an organization is money and the end point of that organization is also money. No organization can run an existing business and promote a new expansion project without a suitable internally mobilized financial base or both internally and externally mobilized financial base.

Sources of finance and capital structure are the most important dimensions of a strategic plan.

Along with the mobilization of funds, policy makers should decide on the capital structure to indicate the desired mix of equity capital and debt capital. There are some norms for debt equity ratio. However this ratio in its ideal form varies from industry to industry. It also depends on the planning mode of the organization under study.

Another important dimension of strategic management and financial policy interface is the investment and fund allocation decisions. A planner has to frame policies for

regulating investments in fixed assets and for restraining of current assets. Investment proposals mooted by different business units may be addition of a new product, increasing the level of operation of an existing product and cost reduction and efficient utilization of resources through a new approach and or closer monitoring of the different critical activities.

Now, given these three types of proposals a planner should evaluate each one of them by making within group comparison in the light of capital budgeting exercise.

Dividend policy is yet another area for making financial policy decisions affecting the strategic performance of the company. A close interface is needed to frame the policy to be beneficial for all. Dividend policy decision deals with the extent of earnings to be distributed as dividend and the extent of earnings to be retained for future expansion scheme of the firm.

It may be noted from the above discussions that financial policy of a company cannot be worked out in isolation of other functional policies. It has a wider appeal and closer link with the overall organizational performance and direction of growth. These policies being related to external awareness about the firm, specially the awareness of the investors about the firm, in respect of its internal performance. There is always a process of evaluation active in the minds of the current and future stake holders of the company. As a result preference and patronage for the company depends significantly on the financial policy framework. And hence attention of the corporate planners must be drawn while framing the financial policies not at a later stage but during the stage of corporate planning itself.