PAPER – 2 : STRATEGIC FINANCIAL MANAGEMENT

*Question No.**1** is compulsory.*

*Candidates are required to answer any **five** questions out of the remaining **six** questions.*

Working notes should form part of the respective answer.

Question 1

(a) Sonic Ltd. issued 8% 5 year bonds of ₹ 1,000 each having a maturity of 3 years. The present rate of interest is 12% for one year tenure. It is expected that Forward rate of interest for one year tenure is going to fall by 75 basis points and further by 50 basis points for next year. This bond has a beta value of 1.02 and is more popular in the market due to less credit risk.

Calculate:

(i) Intrinsic Value of bond.

(ii) Expected price of bond in the market. ***(5 Marks)***

(b) Eager Ltd. has a market capitalization of ₹ 1,500 crores and the current market price of its share is ₹ 1,500. It made a PAT of 200 crores and the Board is considering a proposal to buy back 20% of the shares at a premium of 10% to the current market price. It plans to fund this through a 16% bank loan. You are required to calculate the post buy back Earnings Per Share (EPS). The company's corporate tax rate is 30%. ***(5 Marks)***

(c) Digital Exporters are holding an Export bill in United States Dollar (USD) 5,00,000 due after 60 days. They are worried about the falling USD value, which is currently at ₹ 75.60 per USD. The concerned Export Consignment has been priced on an Exchange rate of ₹ 75.50 per USD. The Firm's Bankers have quoted a 60-day forward rate of ₹ 75.20. Calculate:

(i) Rate of discount quoted by the Bank, assuming 365 days in a year.

(ii) The probable loss of operating profit if the forward sale is agreed to. ***(5 Marks)***

(d) During the year 2017 an investor invested in a mutual fund. The capital gain and dividend for the year was ₹ 3.00 per unit, which were re-invested at the year end NAV of ₹ 23.75. The investor had total units of 26,750 as at the end of the year. The NAV had appreciated by 18.75% during the year and there was an entry load of ₹ 0.05 at the time when the investment was made.

The investor lost his records and wants to find out the amount of investment made and the entry load in the mutual fund. ***(5 Marks)***

Answer

(a) (i) Intrinsic value of Bond

PV of Interest + PV of Maturity Value of Bond

Forward rate of interests

1st Year	12%
2nd Year	11.25%
3rd Year	10.75%

$$\text{PV of interest} = \frac{₹\,80}{(1+0.12)} + \frac{₹\,80}{(1+0.12)(1+0.1125)} + \frac{₹\,80}{(1+0.12)(1+0.1125)(1+0.1075)} = ₹\,193.61$$

$$\text{PV of Maturity Value of Bond} = \frac{₹1000}{(1+0.12)(1+0.1125)(1+0.1075)} = ₹\,724.67$$

Intrinsic value of Bond = ₹ 193.61 + ₹ 724.67 = ₹ 918.28

(ii) Expected Price = Intrinsic Value x Beta Value
= ₹ 918.28 x 1.02 = ₹ 936.65

(b) Existing No. of Equity Shares = $\frac{₹\ 1500\ \text{crore}}{₹1,500}$ = 1 Crore

No. of shares to be bought back = 1 Crore x 0.20 = 20 Lakh

Price at which share to be bought back = ₹ 1,500 + 10% of ₹ 1,500 = ₹ 1,650

Amount required for Buyback of Shares = ₹ 1,650 x 20 Lakh = ₹ 330 Crore

Amount of Loan @ 16% = ₹ 330 Crore

Statement showing Post Buyback EPS

Profit before tax (₹ 200 crore/ 0.70)	₹ 285.7143 crore
Less: Interest on Loan (₹ 330 Crore x 16%)	₹ 52.8000 crore
Profit before Tax	₹ 232.9143 crore
Tax	₹ 69.8743 crore
Profit after Tax (PAT)	₹ 163.0400 crore
No. of Shares Post buyback	80 Lakh
EPS (Post Buyback) (₹ 163.0400 Crore/ 80.00 Lakh)	₹ 203.80

(c) **(i)** Rate of discount quoted by the bank

$$= \frac{(75.20-75.60)\times 365\times 100}{75.60\times 60} = 3.22\%$$

(ii) Probable loss of operating profit:

(75.20 – 75.50) × 5,00,000 = ₹ 1,50,000

(d) NAV in the Beginning of year = $\frac{₹\ 23.75}{118.75} \times 100 = ₹\ 20$

No. of Units after Bonus issue = 26,750

Let x be the No. of Units acquired then

$$26{,}750 = x + \frac{x \times 3}{23.75}$$

x = 23,750 units

Investment Amount = 23,750 units (₹ 20 + ₹ 0.05) = ₹ 4,76,187.50

Entry load = ₹ 1,187.50 i.e. (23750 × ₹ 0.05)

Question 2

(a) Robust Tech, an IT company had purchased printers 5 years ago which are due for replacement. The cost of the printers was ₹75,00,000 and the company depreciates these class of assets on a straight-line basis for 10 years. The printers are expected to realize ₹7,50,000.

There is a proposal to replace all the printers in the company and as a Finance Manager; you are presented with the following alternatives:

***Proposal 1:** Purchase a new Class of sophisticated network printers at a cost of ₹1,00,00,000 which would be depreciated over a period of 5 years and expected to realize ₹ 10,00,000 at the end. The purchase could either be funded through a loan at 14% repayable in 5 equal annual installments at the end of the year. PVAF at 14% for 5 years is 3.433*

OR

***Proposal 2:** Help Printers Ltd. had submitted a proposal to take over the existing printers and provide on rent the new class of sophisticated network printers for the next 5 years at an annual rental of ₹ 18,00,000 payable at the end of the year with a clause to increase the rentals by ₹2,00,000 on an annual basis.*

You are required to suggest the best alternative to the management assuming the company's income tax rate is 50% and discount rate is 7%.

You may ignore realization of scrap value and their short term capital gains/loss under both the options.

Year	*1*	*2*	*3*	*4*	*5*
PV@7 %	*0.935*	*0.873*	*0.816*	*0.763*	*0.713*

(8 Marks)

(b) *Airborne Ltd. wants to take advantage of a new government scheme of connecting smaller towns and wants to purchase one-turboprop airplane at a cost of ₹5 crores. It has obtained permission to fly on 4 sectors.*

The company had provided the following estimates of its costs and revenues. The cost of capital is 16% and the company depreciates its assets over a period of 25 years on a straight-line basis. Currently it is operating in a 30% tax regime and under the new government scheme it enjoys a 100% tax waiver for the first 3 years.

- *Passenger Capacity of the aircraft: 60 passengers*
- *Expected Operational Capacity: 80%*
- *Per aircraft no. of trips on a daily basis: 4*

	Amount in (₹)
Average realization per passenger	*2,000*
Annual Cost of Manpower	*2,50,00,000*
Airport handling charges - Fixed per day	*10,000*
Annual Repairs and Maintenance	*5,00,00,000*
Daily Operating Costs	*75,000*

The costs with the exception of Airport handling charges are expected to increase 10% year on year and the Operational Capacity would go up to 90% from Year 3.

The certainty of achieving the projected cash flows in the first five years are 0.8, 0.9, 0.75, 0.7 and 0.7 and PV at 16% are 0.862, 0.743, 0.641,0.552, 0.476 respectively.

Advise the management on the feasibility of the project, assuming the aircraft operates on all the 365 days in a year. ***(8 Marks)***

Answer

(a) Proposal 1

The loan amount is repayable together with the interest at the rate of 14% on loan amount and is repayable in equal installments at the end of each year. The PVAF at the rate of 14% for 5 years is 3.433, the amount payable will be

$$\text{Annual Payment} = \frac{₹\ 100,00,000}{3.433} = ₹\ 29,12,904 \text{ (rounded)}$$

Schedule of Debt Repayment

End of Year	Total Payment ₹	Interest ₹	Principal ₹	Principal Amount Outstanding ₹
1	29,12,904	14,00,000	15,12,904	84,87,096

2	29,12,904	11,88,193	17,24,711	67,62,385
3	29,12,904	9,46,734	19,66,170	47,96,215
4	29,12,904	6,71,470	22,41,434	25,54,781
5	29,12,904	3,58,123*	25,54,781	------

* Balancing Figure

Schedule of Cash Outflows: Debt Alternative *(Amount in ₹)*

(1)	(2)	(3)	(4)	(3) + (4)	(5)	(6)	(7)	(8)
End of year	Debt Payment	Interest	Dep		Tax Shield [(3) + (4)] 0.50	Cash outflows (2) – (5)	PV factors @ 7%	PV
1	29,12,904	14,00,000	18,00,000	32,00,000	16,00,000	13,12,904	0.935	12,27,565
2	29,12,904	11,88,193	18,00,000	29,88,193	14,94,097	14,18,807	0.873	12,38,619
3	29,12,904	9,46,734	18,00,000	27,46,734	13,73,367	15,39,537	0.816	12,56,262
4	29,12,904	6,71,470	18,00,000	24,71,470	12,35,735	16,77,169	0.763	12,79,680
5	29,12,904	3,58,123	18,00,000	21,58,123	10,79,062	18,33,842	0.713	13,07,529
								63,09,655

Total present value of Outflows = ₹ 63,09,655

Proposal 2

(1)	(2)	(3)	(4)	(5)	(6)
End of year	Lease Rent	Tax Shield	Cash outflows (2) – (3)	PV factors @ 7%	PV
1	18,00,000	9,00,000	9,00,000	0.935	8,41,500
2	20,00,000	10,00,000	10,00,000	0.873	8,73,000
3	22,00,000	11,00,000	11,00,000	0.816	8,97,600
4	24,00,000	12,00,000	12,00,000	0.763	9,15,600
5	26,00,000	13,00,000	13,00,000	0.713	9,26,900
					44,54,600

Since PV of outflows is lower in the Leasing option, Robust Tech should go for leasing option to acquire printer.

(b) Working Notes:

(i) $\text{Depreciation} = \frac{₹\ 5,00,00,000}{25} = ₹\ 20,00,000$ Per Annum

(ii) Realization from Passenger

	Year 1	Year 2	Year 3	Year 4	Year 5
Passenger Capacity	60	60	60	60	60
Exp. Operational Capacity	80%	80%	90%	90%	90%
No. of Trips per Day	4	4	4	4	4
Average Realization Per Passenger (₹)	2,000	2,000	2,000	2,000	2,000
No. of Days	365	365	365	365	365
Realizations (₹)	14,01,60,000	14,01,60,000	15,76,80,000	15,76,80,000	15,76,80,000

(iii) Statement Showing Cost (₹)

	Year 1	Year 2	Year 3	Year 4	Year 5
Annual Cost of Manpower	2,50,00,000	2,75,00,000	3,02,50,000	3,32,75,000	3,66,02,500
Airport Handling Charges	36,50,000	36,50,000	36,50,000	36,50,000	36,50,000
Annual Repair & Maintenance	5,00,00,000	5,50,00,000	6,05,00,000	6,65,50,000	7,32,05,000
Daily Operating Exp.	2,73,75,000	3,01,12,500	3,31,23,750	3,64,36,125	4,00,79,738
Total	10,60,25,000	11,62,62,500	12,75,23,750	13,99,11,125	15,35,37,238

(iv) Statement Showing NPV (Amount in ₹)

	Year 1	Year 2	Year 3	Year 4	Year 5
Realizations	14,01,60,000	14,01,60,000	15,76,80,000	15,76,80,000	15,76,80,000
Cost of Operations	10,60,25,000	11,62,62,500	12,75,23,750	13,99,11,125	15,35,37,238
Depreciation	20,00,000	20,00,000	20,00,000	20,00,000	20,00,000
Profit Before Tax	3,21,35,000	2,18,97,500	2,81,56,250	1,57,68,875	21,42,762
Less: Tax	----	---	---	47,30,663	6,42,829
Profit after Tax	3,21,35,000	2,18,97,500	2,81,56,250	1,10,38,212	14,99,933
Add: Depreciation	20,00,000	20,00,000	20,00,000	20,00,000	20,00,000
	3,41,35,000	2,38,97,500	3,01,56,250	1,30,38,212	34,99,933
CE Factor	0.8	0.9	0.75	0.70	0.70
Certain Cash Flow	2,73,08,000	2,15,07,750	2,26,17,188	91,26,748	24,49,953
PVF@16%	0.862	0.743	0.641	0.552	0.476
PV of Cash Inflow	2,35,39,496	1,59,80,258	1,44,97,618	50,37,965	11,66,178

Total PV of Cash Inflow	6,02,21,515
PV of Cash Outflow	5,00,00,000
NPV	1,02,21,515

Since NPV is positive Airborne Ltd. should accept the project.

Question 3

(a) Mr. Gupta is considering investment in the shares of R. Ltd. He has the following expectations of return on the stock and the market:

	***Return** (%)*	
Probability	***R. Ltd.***	***Market***
0.35	*30*	*25*
0.30	*25*	*20*
0.15	*40*	*30*
0.20	*20*	*10*

You are required to:

(i) Calculate the expected return, variance and standard deviation for R. Ltd.

(ii) Calculate the expected return variance and standard deviation for the market.

(iii) Find out the beta co-efficient for R. Ltd. shares. ***(8 Marks)***

(b) A company has an EPS of ₹ 2.5 for the last year and the DPS of ₹ 1. The earnings is expected to grow at 2% a year in long run. Currently it is trading at 7 times its earnings. If the required rate of return is 14%, compute the following:

(i) An estimate of the P/E ratio using Gordon growth model.

(ii) The Long-term growth rate implied by the current P/E ratio. ***(8 Marks)***

Answer

(a) (i) Calculation of Expected Return, Variance and Standard Deviation for R Ltd.

Prob. (P)	R	P x R	$(R - \bar{R})$	$(R - \bar{R})^2$	$(R - \bar{R})^2 P$
0.35	30	10.50	2	4	1.40
0.30	25	7.50	- 3	9	2.70
0.15	40	6.00	12	144	21.60
0.20	20	4.00	- 8	64	12.80
		28.00			38.50

$\sigma = \sqrt{38.50} = 6.20$

(ii) Calculation of Expected Return, Variance and Standard Deviation for Market

Prob. (P)	M	P x M	$(M - \bar{M})$	$(M - \bar{M})^2$	$P(M - \bar{M})^2$	$(R - \bar{R})(M - \bar{M})$	$(R - \bar{R})(M - \bar{M})P$
0.35	25	8.75	3.75	14.063	4.922	7.50	2.625
0.30	20	6.00	-1.25	1.563	0.469	3.75	1.125
0.15	30	4.50	8.75	76.563	11.484	105.00	15.75
0.20	10	2.00	- 11.25	126.563	25.313	90.00	18.00
		21.25			42.188		37.50

$\sigma = \sqrt{42.188} = 6.495$

(iii) Beta Co-efficient for R Ltd. Shares

$$\beta = \frac{Cov(R,M)}{\sigma_M^2} = \frac{37.50}{42.188} = 0.888$$

(b) (i) Estimation of P/E Ratio using Gordon Growth Model

$$k_e = \frac{D_1}{P} + g$$

$$0.14 = \frac{1(1.02)}{P} + 0.02$$

P = ₹ 8.50

$$\text{PE Ratio} = \frac{\text{Rs. } 8.50}{\text{Rs. } 2.50} = 3.40$$

(ii) Long Term Growth Rate implied

Based on Current PE Ratio, the price per share = ₹ 2.50 x 7 Times = ₹ 17.50

We know that

$P = D_0(1+g)/ (k_e - g)$

₹ 17.50 = ₹ 1(1+g)/ (0.14 – g)

17.50 x 0.14 – 17.50g = 1 + g

g = 0.0784 i.e. 7.84%

Question 4

(a) As an investor you had purchased a 4 month call option on the equity shares of Z Ltd. of ₹10, of which the current market price is ₹132 and the exercise price ₹150. You expect

the price to range between ₹120 to ₹190. The expected share price of Z Ltd. and related probability is given below:

Expected Price (₹)	*120*	*140*	*160*	*180*	*190*
Probability	*.05*	*.20*	*.50*	*.10*	*.15*

Compute the following:

(i) Expected share price at the end of 4 months.

(ii) Value of Call Option at the end of 4 months, if the exercise price prevails.

(iii) In case the option is held to its maturity, what will be the expected value of the call option? ***(8 Marks)***

(b) A mutual fund raised ₹150 lakhs on April 1, 2018 by issue of 15 lakh units at ₹10 per unit. The fund invested in several capital market instruments to build a portfolio of ₹140 lakhs, Initial expenses amounted to ₹8 lakhs. During the month of April, the fund sold certain instruments costing ₹44.75 lakhs for ₹47 lakhs and used the proceeds to purchase certain other securities for ₹41.6 lakhs. The fund management expenses for the month amounted to ₹6 lakhs of which ₹50,000 was in arrears. The fund earned dividends amounting to ₹1.5 lakhs and it distributed 80% of the realized earnings. The market value of the portfolio on 30th April, 2018 was ₹147.85 lakhs.

An investor subscribed to 1000 units on April 1 and disposed it off at closing NAV on 30th April. Determine his annual rate of earnings. ***(8 Marks)***

Answer

(a) (1) Expected Share Price

= ₹120X 0.05 + ₹140X 0.20 + ₹160X 0.50 + ₹180X 0.10 + ₹190X 0.15

= ₹6 + ₹28 + ₹80 + ₹18 + ₹28.50 = ₹160.50

(2) Value of Call Option

= ₹150 - ₹150 = Nil

(3) If the option is held till maturity the expected Value of Call Option

Expected price (X)	Value of call (C)	Probability (P)	CP
₹ 120	0	0.05	0
₹ 140	0	0.20	0
₹ 160	₹ 10	0.50	₹ 5
₹ 180	₹ 30	0.10	₹ 3
₹ 190	₹ 40	0.15	₹ 6
Total			₹ 14

Alternatively, it can also be calculated as follows:

Expected Value of Option	
(120 – 150) X 0.05	Not Exercised*
(140 – 150) X 0.20	Not Exercised*
(160 – 150) X 0.50	5
(180 – 150) X 0.10	3
(190 – 150) X 0.15	6
	14

* If the strike price goes below ₹ 150, option is not exercised at all.

(b)

	Amount in ₹ lakhs	Amount in ₹ lakhs	Amount in ₹ lakhs
Opening Bank (150 - 140 - 8)	2.00		
Add: Proceeds from sale of securities	47.00		
Add: Dividend received	1.50	50.50	
Deduct:			
Cost of securities purchased	41.60		
Fund management expenses paid	5.50		
Capital gains distributed = 80% of (47 – 44.75)	1.80		
Dividend distributed =80% of 1.50	1.20	50.10	
Closing Bank			0.40
Closing market value of portfolio			147.85
			148.25
Less: Arrears of expenses			0.50
Closing Net Assets			147.75
Number of units (Lakhs)			15
Closing NAV per unit (147.75/15)			9.85

Rate of Earning (Per Unit)

	Amount
Income received (₹ 1.20 + ₹ 1.80)/15	₹ 0.20
Loss: Loss on disposal (₹ 150 - ₹ 147.75)/15	₹ 0.15
Net earning	₹ 0.05

Initial investment	₹ 10.00
Rate of earning (monthly)	0.5%
Rate of earning (Annual)	6.00%

Question 5

(a) The Treasury desk of a global bank incorporated in UK wants to invest GBP 200 million on 1st January, 2019 for a period of 6 months and has the following options:

(1) The Equity Trading desk in Japan wants to invest the entire GBP 200 million in high dividend yielding Japanese securities that would earn a dividend income of JPY 1,182 million. The dividends are declared and paid on 29th June. Post dividend, the securities are expected to quote at a 2% discount. The desk also plans to earn JPY 10 million on a stock borrow lending activity because of this investment. The securities are to be sold on June 29 with a T+1 settlement and the amount remitted back to the Treasury in London.

(2) The Fixed Income desk of US proposed to invest the amount in 6 month G-Secs that provides a return of 5% p.a.

The exchange rates are as follows:

Currency Pair	***1-Jan-2019 (Spot)***	***30-Jun-2019 (Forward)***
GBP-JPY	*148.0002*	*150.0000*
GBP- USD	*1.28000*	*1.30331*

As a treasurer, advise the bank on the best investment option. What would be your decision from a risk perspective. You may ignore taxation. ***(8 Marks)***

(b) Spot rate 1 US$ = ₹ 68.50

USD premium on a six month forward is 3%. The annualized interest in US is 4% and 9% in India.

Is there any arbitrage possibility? If yes, how a trader can take advantage of the situation if he is willing to borrow USD 3 million. ***(8 Marks)***

Answer

(a) (1) Yield from Investment in Equity Trading Index in Japan

Conversion of GBP 200 million in JPY (148.0002) JPY 29600.04 Million

Dividend Income	JPY 1182.00 Million
Stock Lending	JPY 10.00 Million
Investment Value at End	JPY 29008.0392 Million
Amount available at End	JPY 30200.0392 Million
Forward Rate of 30.06.2019	JPY 150/ GBP

Amount to be Remitted back to London	GBP 201.3336 Million
Gain = GBP 201.3336 – GBP 200	GBP 1.3336 Million

(2) Fixed Income Desk of US

Conversion of GBP 200 million in USD (1.28000)	USD 256.00 Million
Add: Interest @ 5% p.a. for 6 months	USD 6.40 Million
Amount available at End	USD 262.40 Million
Forward Rate of 30.06.2019	USD 1.30331/GBP
Amount to be Remitted back to London	GBP 201.3335 Million
Gain = GBP 201.3335 – GBP 200	GBP 1.3335 Million

Decision:

The equivalent amount at the end of 6 months shall be almost same in both the options. The bank can go for any of the options.

However, from risk perspective, the investment in fixed income desk of US is more beneficial as the chance of variation in fixed income securities is less as compared to Equity Desk.

(b)

Spot Rate = ₹68.50

Forward Rate = ₹ 68.50 x 1.03 = ₹ 70.56

Forward Premium on US$ = 3.00% x 12/6 = 6.00%

Interest rate differential = 9% - 4%

= 5%

Since the Interest rate differential is less than forward premium there is a possibility of arbitrage outflow from India.

The advantage of this situation can be taken in the following manner:

1. Borrow equivalent amount of US$ 3000000 in India for 6 months at Spot Rate

₹ 68.50 x US$ 3000000 = ₹ 20,55,00,000

Amount to be repaid after 6 months

= ₹ 20,55,00,000 (1+0.09 x 6/12) = ₹ 21,47,47,500

2. Convert ₹ 20,55,00,000 into US$ and get the principal i.e. = US$ 30,00,000

Interest on Investments for 6 months – US$ 3000000 x 0.02 = US$ 60,000

Total amount at the end of 6 months = US$ (30,00,000+60,000) = US$ 30,60,000

Converting the same at the forward rate

= US$ 30,60,000 x ₹ 70.56 = ₹ 21,59,13,600

Hence the gain is ₹ (21,59,13,600 – 21,47,47,500) = ₹ 11,66,100 or

₹ 11,66,100/ ₹ 70.56 = US$ 16,526

Question 6

(a) C Ltd. & D Ltd. are contemplating a merger deal in which C Ltd. will acquire D Ltd. The relevant information about the firms are given as follows:

	C Ltd.	*D Ltd.*
Total Earnings (E) (in millions)	*₹ 96*	*₹ 30*
Number of outstanding shares (S) (in millions)	*20*	*14*
Earnings per share (EPS) (₹)	*4.8*	*2.143*
Price earnings ratio (P/E)	*8*	*7*
Market Price per share (P)(₹)	*38.4*	*15*

(i) What is the maximum exchange ratio acceptable to the shareholders of C Ltd., if the P/E ratio of the combined firm is 7?

(ii) What is the minimum exchange ratio acceptable to the shareholders of D Ltd., if the P/E ratio of the combined firm is 9? ***(12 Marks)***

(b) AMKO Limited has issued 75,000 equity shares of ₹ 10 each. The current market price per share is ₹ 36. The company has a plan to make a rights issue of one new equity share at a price of ₹ 24 for every four shares held.

You are required to:

(i) Calculate the theoretical post-rights price per share.

(ii) Calculate the theoretical value of the right alone. ***(4 Marks)***

Answer

(a) (i) Maximum exchange ratio acceptable to the shareholders of C Ltd.

Market Price of share of C Ltd. (₹ 4.8 x 8)	₹ 38.40
No. of Equity Shares	20 Million
Market Capitalisation of C Ltd. (₹ 38.40 x 20 Million)	₹ 768 Million
Combined Earnings (₹ 96 + ₹ 30) Million	₹ 126 Million
Combined Market Capitalisation (₹ 126 Million x 7)	₹ 882 Million
Market Capitalisation of C Ltd. (₹ 38.40 x 20 Million)	₹ 768 Million
Balance for D Ltd.	₹ 114 Million

Let D be the no. of equity shares to be issued to D Ltd. then,

$$\frac{₹\,114\,\text{Million}}{\left(\frac{126\,\text{Million}}{D+20}\right)\times 7} = D$$

D = 2.96875 Million Shares

Exchange Ratio = 2.96875 / 14 = 0.212:1

(ii) Minimum exchange ratio acceptable to the shareholders of D Ltd.

Market Price of share of D Ltd.	₹ 15.00
No. of Equity Shares	14 Million
Market Capitalisation of D Ltd. (₹ 15.00 x 14 Million)	₹ 210 Million
Combined Earnings (₹ 96 + ₹ 30) Million	₹ 126 Million
Combined Market Capitalisation (₹ 126 Million x 9)	₹ 1134 Million
Balance for C Ltd.	₹ 924 Million

Let D be the no. of equity shares to be issued to D Ltd. then,

$$\frac{₹\,210\,\text{Million}}{\left(\frac{126\,\text{Million}}{D+20}\right)\times 9} = D$$

D = 4.54545 Million Shares

Exchange Ratio = 4.54545 / 14 = 0.325:1

(b) (i) Calculation of theoretical Post-rights (ex-right) price per share:

$$\text{Ex-right value} = \left\lfloor \frac{MN+SR}{N+R} \right\rfloor$$

Where,

M = Market price,

N = Number of old shares for a right share

S = Subscription price

R = Right share offer

$$= \left\lfloor \frac{₹\,36\times 4 + ₹\,24\times 1}{4+1} \right\rfloor = ₹\ 33.60$$

(ii) Calculation of theoretical value of the rights alone:

= Ex-right price – Cost of rights share

= ₹ 33.60 – ₹ 24 = ₹ 9.60

Or

$$= \frac{₹\,33.60 - ₹\,24}{4} = ₹\,2.40$$

Question 7

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

(a) Enumerate 'Strategy' at different levels of hierarchy.

(b) Benefits to the issuer of Commercial Paper.

(c) Define any four Pre-conditions for an Efficient Money Market.

(d) Distinguish between future contract and option contract.

(e) What are the various reasons for demerger or divestment. ***(4 x 4 = 16 Marks)***

Answer

(a) Strategies at different levels hierarchy are the outcomes of different planning needs. There are basically three types of strategies:

(i) *Corporate Strategy*: At the corporate level planners decide about the objective or objectives of the firm along with their priorities and based on objectives, decisions are taken on participation of the firm in different product fields. Basically a corporate strategy provides with a framework for attaining the corporate objectives under values and resource constraints, and internal and external realities. It is the corporate strategy that describes the interest in and competitive emphasis to be given to different businesses of the firm. It indicates the overall planning mode and propensity to take risk in the face of environmental uncertainties.

(ii) *Business Strategy*: It is the managerial plan for achieving the goal of the business unit. However, it should be consistent with the corporate strategy of the firm and should be drawn within the framework provided by the corporate planners. Given the overall competitive emphasis, business strategy specifies the product market power i.e. the way of competing in that particular business activity. It also addresses coordination and alignment issues covering internal functional activities. The two most important internal aspects of a business strategy are the identification of critical resources and the development of distinctive competence for translation into competitive advantage.

(iii) *Functional Strategy:* It is the low level plan to carry out principal activities of a business. In this sense, functional strategy must be consistent with the business strategy, which in turn must be consistent with the corporate strategy. Thus strategic

plans come down in a cascade fashion from the top to the bottom level of planning pyramid and performances of functional strategies trickle up the line to give shape to the business performance and then to the corporate performance.

(b) Benefits to the Issuer of Commercial Paper (CP)

(i) *Low interest expenses:* The interest cost associated with the issuance of CP is normally expected to be less than the cost of bank financing, as among other things, it is related to the inter-corporate money market rate, which in normal times is within the cost of bank finance.

(ii) *Access to short term funding*: CP issuance provides a company with increased access to short term funding sources. By bringing the short term borrower into direct contact with investors, the CP market will, to some extent, disintermediate the established role of banks and pass on the benefit to both issuers and investors.

(iii) *Flexibility and liquidity*: CP affords the issuer increased flexibility and liquidity in matching the exact amount and maturity of its debt to its current working capital requirement.

(iv) *Investor recognition*: The issuance of CP provides the issuer with favourable exposure to major institutional investors as well as wider distribution of its debt.

(v) *Ease and low cost of establishment*: A CP programme can be established with ease at a low cost, once the basic criteria have been satisfied.

(c) (i) Institutional development, relative political stability and a reasonably well developed banking and financial system.

(ii) Unlike capital market or commodity markets, tradings in money market are concluded over telephone followed by written confirmation from the contracting parties. Hence, integrity is sine qua non. Thus banks and other players in the market may have to be licensed and effectively supervised by regulators.

(iii) The market should be able to provide an investment outlet for any temporarily surplus funds that may be available. Thus, there must be supply of temporarily idle cash that is seeking short-term investment in an earning asset. There must also exist a demand for temporarily available cash either by banks or financial institutions for the purpose of adjusting their liquidity position and finance the carrying of the relevant assets in their balance sheets.

(iv) Efficient payment systems for clearing and settlement of transactions. The introduction of Electronic Funds Transfer (EFT), Depository System, Delivery versus Payment (DVP), High Value Inter-bank Payment System, etc. are essential pre-requisites for ensuring a risk free and transparent payment and settlement system.

(v) Government/Central Bank intervention to moderate liquidity profile.

(vi) Strong Central Bank to ensure credibility in the system and to supervise the players in the market.

(vii) The market should have varied instruments with distinctive maturity and risk profiles to meet the varied appetite of the players in the market. Multiple instruments add strength and depth to the market; and

(viii) Market should be integrated with the rest of the markets in the financial system to ensure perfect equilibrium. The funds should move from one segment of the market to another for exploiting the advantages of arbitrage opportunities.

(d) **(i)** *Obligation Vs. Choice or Right:* Future contract involves the Obligation and has to be performed irrespective of the actual price on the maturity date. On the other hand, the buyer of the option has a choice or right to perform or not to perform the contract.

(ii) *Margin Vs. Premium:* Since option contract is a type of Insurance it involves the payment of some premium. On the other hand, Future does not involve any kind of premium although it involves depositing of some Margin money but that too for the settlement purpose only.

(iii) *Limited Vs. Unlimited Gain or Loss:* In Future Contract the actual gain or loss to the parties involved may be unlimited as it depends on the actual price on the settlement date. Whereas in the Option contract for the option buyer the loss may be limited to the actual premium paid.

(iv) *Longer Vs. Shorter Duration:* In general, the duration of Option Contract is lesser than Future Contract.

(e) There are various reasons for divestment or demerger viz.,

(i) To pay attention on core areas of business;

(ii) The division/ business may not be sufficiently contributing to the revenues;

(iii) The size of the firm may be too big to handle;

(iv) The firm may be requiring cash urgently in view of other investment opportunities.