years		
Advertisement	5.00	
Depreciation	6.00	11.00
Expected earnings before taxes		48.00
Less: Income-tax @ 30%		14.40
Future maintainable profits (after taxes)		33.60

Value of business

Capitalization factor	$\frac{33.60}{0.15}$ =	224
Less: Long term Debts		30
		194
Value per share	$\frac{1,94,00,000}{10,00,000}$	₹ 19.40

Fair Price of Share	₹
Value as per Net Assets Method	21.60
Value as per Profit earning capacity (Capitalization) method	19.40
Fair Price = $\frac{21.60 + 19.40}{2} = \frac{41.00}{2}$	₹ 20.50

Question – 23

You are interested in buying some equity stocks of RK Ltd. The company has 3 divisions operating in different industries. Division A captures 10% of its industries sales which is forecasted to be ₹ 50 crore for the industry. Division B and C captures 30% and 2% of their respective industry's sales, which are expected to be ₹ 20 crore and ₹ 8.5 crore respectively. Division A traditionally had a 5% net income margin, whereas divisions B and C had 8% and 10% net income margin respectively. RK Ltd. has 3,00,000 shares of equity stock outstanding, which sell at ₹ 250.

The company has not paid dividend since it started its business 10 years ago. However from the market sources you come to know that RK Ltd. will start paying dividend in 3 years time and the pay-out ratio is 30%. Expecting this dividend, you would like to hold the stock for 5 year. By analyzing the past

financial statements, you have determined that RK Ltd.'s required rate of return is 18% and that P/E ratio of 10 for the next year and on ending P/E ratio of 20 at the end of the fifth year are appropriate.

Required:

(i) Would you purchase RK Ltd. equity at this time based on your one year forecast?

(ii) If you expect earnings to grow @ 15% continuously, how much are you willing to pay for the stock of RK Ltd ?

Ignore taxation.

PV factors are given below :

Years	1	2	3	4	5
PVIF@ 18%	0.847	0.718	0.609	0.516	0.437

(Exam November – 2019 & MTP March – 2021)

Solution:

Working Notes:

Computation of Earnings per Share (EPS)

Particulars		Amount (₹)
Margin of Division A	(₹ 50 crore × 10% × 5%)	25,00,000
Margin of Division B	(₹ 20 crore × 30% × 8%)	48,00,000
Margin of Division C	(₹ 8.5 crore × 2% × 10%)	1,70,000
		74,70,000
No. of Equity Shares		3,00,000
EPS		₹ 24.90

(i) Market Price based on One Year Forecast

Expected Market Price at the end of the year = ₹ 24.90 × 10 = ₹ 249

PV of the Expected Price = ₹ 249 × 0.847 = ₹ 210.90

I would **NOT** like to purchase the share as the expected market price of shares is less than its current price of ₹ 250.

(ii) If Earning is expected to grow @ 15%

Year	EPS (₹)	Dividend (₹)	PVF@18%	PV (₹)
1	28.64	---	0.847	---
2	32.93	---	0.718	---
3	37.87	11.36	0.609	6.92
4	43.55	13.07	0.516	6.74
5	50.08	15.02	0.437	6.56
				20.22

Share Price after 5 years = $\frac{15.02\ (1.15)}{0.18 - 0.15}$ = ₹ 575.77

PV of the Market Price after 5 years = ₹ 575.77 × 0.437 = ₹ 251.61

Total PV of Inflows = ₹ 20.22 + ₹ 251.61 = ₹ 271.83

Thus, the maximum price I would be willing to pay for the share shall be ₹ 271.83.

Question – 24

There is a privately held company X Pvt. Ltd. that is operating into the detail space, and is now scouting for angel investors. The unleveraged beta based on the industry in which it operates is 1.8, and the average debt to equity ratio of X Pvt. Ltd. is hovering at 40:60. The rate of return provided by risk free GOI Bonds is 5%. The rate of market return for the industry is 11%. The FCFs for the next 3 years are as follows:

	Year 1	Year 2	Year 3
Free Cash Flows (₹ Crores)	10	12	15

The pre-tax cost of debt is 12%. Assume a tax regime of 30%.

Determine the potential value to be placed for X Pvt. Ltd. based on above-mentioned FCFs.

Note: Use PVF and round off calculations upto 3 decimal points.

(MTP September – 2024)

Solution:

To compute the value of A Ltd. first, we shall calculate WACC of the company. Since its share is not trading in the market, we shall use proxy beta to calculate the cost of equity. Since the unlevered beta of the industry is 1.8 the levered beta of the company will be:

= 1.8[1 + (1 – 0.3)*40/60)]

= 2.64

The Cost of equity in accordance with CAPM

= r (f) + β (Rm – Rf)

= 5% + 2.64 (11% – 5%)

= 20.84%

The WACC = Cost of Equity + Cost of Debt

= 20.84 (60/100) + 12.0 (1 – 0.3) (40/100)

= 15.864

Finally, the free cash flows can be discounted at the WACC obtained above as under –

	Year 1	Year 2	Year 3
Free Cash Flows	10	12	15
Discount Factor	0.863	0.745	0.643
PVs of Cash Flows	8.63	8.94	9.645
Value of X Pvt. Ltd. (₹ Crores)			27.215

PART III: GEARING OF BETA

Question – 25

The total market value of the equity share of O.R.E. company is ₹ 60,00,000 and the total value of the debts is ₹ 40,00,000. The treasure estimate that the beta of the stock is currently 1.5 and that the expected risk premium on the market is 10%. The treasury bill rate is 8%.

Required:

(1) What is the beta of the company's existing portfolio of assets?

(2) Estimate the company's cost of capital and the discount rate for an expansion of the company's business.

Solution:

(1) Asset Beta

$$B_A = B_E \times \frac{E}{E+D}$$

$$= 1.5 \times \frac{60,00,000}{1,00,00,000}$$

$$= 0.9$$

(2) Cost of Capital

$$K_e = R_f + MRP \times B_E$$

$$= 8 + 10 \times 1.5 = 23\%$$

$$K_d = R_f = 8\%$$

$$WACC = \frac{(60,00,000 \times 23) + (40,00,000 \times 8)}{1,00,00,000}$$

$$= 17\%$$

If company expand same business with same risk then discount rate 17% should be used.

Question – 26

Equity of KGF Ltd. (KGFL) is ₹ 410 Crores, its debt, is worth ₹ 170 Crores. Printer Division segments value is attributable to 74%, which has an Asset Beta (β_p) of 1.45, balance value is applied on Spares and Consumables Division, which has an Asset Beta (β_{sc}) of 1.20 KGFL Debt beta (β_D) is 0.24.

You are required to calculate:

(i) Equity Beta (β_E),

(ii) Ascertain Equity Beta (β_E), if KGF Ltd. decides to change its Debt Equity position by raising further debt and buying back of equity to have its Debt Equity Ratio at 1.90. Assume that the present Debt Beta (β_{D1}) is

0.35 and any further funds raised by way of Debt will have a Beta (β_{D2}) of 0.40.

(iii) Whether the new Equity Beta (β_E) justifies increase in the value of equity on account of leverage?

Solution:

KGF Ltd. [E 410 + D 170] = ₹ 580 Cr.

B_D = 0.24

Printer (74%)	**SCD (26%)**
B_P = 1.45	B_P = 1.20

B_A of KGF Ltd.

B_A = (1.45 × 74%) + (1.20 × 26%)

= 1.385

(i) Equity Beta of KGFL

$$B_A = \left(B_E \times \frac{E}{E+D}\right) + \left(B_D \times \frac{D}{E+D}\right)$$

$$1.385 = \left(B_E \times \frac{410}{580}\right) + \left(0.24 \times \frac{170}{580}\right)$$

$$1.385 = 0.7069\ B_E + 0.0703$$

$$B_E = \frac{1.385 - 0.0703}{0.7069}$$

= 1.86

(ii) B_E of KGF Ltd.

Equity = 580 Cr. × $\frac{1}{2.9}$

= 200 Cr.

Debt = 580 Cr. × $\frac{1.9}{2.9}$

= 380 Cr.

Present Debt = 170

B_D = 0.35

Further Debt = 210

B_D = 0.40

$$1.385 = \left(B_E \times \frac{200}{580}\right) + \left(0.35 \times \frac{170}{580}\right) + \left(0.40 \times \frac{210}{580}\right)$$

$$1.385 = 0.3448\ B_E + 0.1026 + 0.1448$$

$$B_E = \frac{1.385 - 0.1026 - 0.1448}{0.3448}$$

$$= 3.299$$

(iii) Since B_E increased due to increase in debt, hence risk of equity also increase.

Question – 27

STR Ltd.'s current financial year's income statement reported its net income after tax as ₹ 50 Crore.

Following is the capital structure of STR Ltd. at the end of current financial year:

	₹
Debt (Coupon rate = 11%)	80 Crore
Equity (Share Capital + Reserves & Surplus)	250 Crore
Invested Capital	330 Crore

Following data is given to estimate cost of equity capital:

Asset Beta of STR Ltd.	1.11
Risk free rate of return	8.5%
Average market risk premium	9%

The applicable corporate income tax rate is 30%.

Estimate Economic Value added (EVA) of STR Ltd. in ₹ lakh.

(RTP November – 2021 & MTP October – 2020)

Solution:

B_E

$$1.11 = B_E \times \frac{250}{250 + 80\ (1 - 0.30)}$$

$$1.11 = B_E \times \frac{250}{306}$$

$B_E = 1.359$

$K_e = 8.5 + 9 \times 1.359 = 20.73\%$

$K_d = 11\ (1 - 0.30) = 7.7\%$

$$K_0 = \left(20.73 \times \frac{250}{330}\right) + \left(7.7 \times \frac{80}{330}\right)$$

$= 17.57\%$

NOPAT

$$EBIT = \left[\frac{50}{(1 - 0.30)} + 8.80\right] = 80.2286 \text{ Cr.}$$

(-) Tax @ 30%

NOPAT = 56.1600 Cr.

EVA = NOPAT – C/E × WACC

= 56.1600 – 330 × 17.57%

= 1.821 Cr.

ADDITIONAL QUESTIONS

Question – 01

ZIO is a small-to-medium-sized privately held company specializing in electrical equipment manufacturing and is seeking additional investors. Below are key financial indicators to assist in evaluating the investment potential:

* Break-even Achieved: The Company has reached its break-even point this year.

* EBITA: ₹ 110 Lakh, including an extraordinary gain of ₹ 16 Lakh.

* Pending Adjustments: ₹ 38 Lakh in preliminary sales promotion costs are yet to be written off.
* Unlevered Beta: 1.5 (based on the industry benchmark).
* Capital Structure: Debt-to-Equity Ratio of 30:70
* Risk-Free Rate: 6% (based on liquid bonds).
* Market Rate of Return: 12% (internal industry assement).
* Equity Value (EV): The EV is to be taken at a multiple of 8 on EBITDA.
* The pre-tax cost of debt is 12.45% and assume a tax regime of 30%

The Future Cash Flows (FCFs) for the next three years are as follows

	Year 1	Year 2	Year 3
Future cash flows (₹ in Lakh)	150	200	220

Future cash flows are discounted at Weighted Average Cost of Capital (WACC)

PV Factor at 15% & 14% are as under-

	1	2	3
PV Factor at 15%	0.870	0.756	0.658
PV Factor at 14%	0.877	0.769	0.675

Calculation upto 2 decimal places.

You are required to calculate potential value to be placed on ZIO Company.

(Exam May – 2025) (7 Marks)

Solution:

The levered beta of the company will be

$1.5[1 + (1 - 0.3) \times 30/70)] = 1.95$

The adjusted EBITDA would be

₹ 110 Lakh – ₹ 16 Lakh – ₹ 38 Lakh = ₹ 56 Lakh

The EV will be multiple of 8 on the ₹ 56 Lakh obtained above = ₹ 448 Lakh

The Cost of equity in accordance with CAPM = $R_f + \beta (R_m - R_f)$

= 6% + 1.95 (12% - 6%) = 17.70%

The WACC = Cost of Equity + Cost of Debt

= 17.70 (70/100) + 12.45 (1-0.3) (30/100)

= 15.00%

Finally, the future cash flows can be discounted at the WACC obtained above as under –

	Y1	Y2	Y3
Future Cash Flows	150	200	220
Discount Factor	0.870	0.756	0.658
PVs of Cash Flows	130.50	151.20	144.76
Value of the Firm			426.46

Question – 02

There is a privately held company X Pvt. Ltd that is operating into the retail space, and is now scouting for angel investors. The details pertinent to valuing X Pvt. Ltd are as follows –

The company has achieved break even this year and has an EBITDA of ₹ 90 crore. The unleveraged beta based on the industry in which it operates is 1.8, and the average debt to equity ratio is hovering at 40:60. The rate of return provided by risk free liquid bonds is 5%. The EV is to be taken at a multiple of 5 on EBITDA. The accountant has informed that the EBITDA of ₹ 90 crore includes an extraordinary gain of ₹ 10 crore for the year, and a potential write off of preliminary sales promotion costs of ₹ 20 crore are still pending. The internal assessment of rate of market return for the industry is 11%. The FCFs for the next 3 years are as follows:

(₹ crore)

	Y1	Y2	Y3
Future Cash Flows	100	120	150

The post-tax cost of debt is 8.40%. Assume a tax regime of 30%.

What is the potential value to be placed on X Pvt. Ltd?

Note: While PV Factors values to be rounded off to 3 decimal points the other calculations to be rounded off to 2 decimal points.

(MTP March – 2025)

Solution:

The levered beta of the company will be 1.8 [1 + (1 – 0.3) × 40/60)] = 2.64

The adjusted EBITDA would be ₹ 90 crore – ₹ 10 crore – ₹ 20 crore = ₹ 60 crore

The EV will be multiple of 5 on the 60 obtained above = ₹ 300 crore

The Cost of equity in accordance with CAPM

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

= 5% + 2.64 (11% – 5%) = 20.84%

The WACC = Cost of Equity + Cost of Debt

= 20.84 (60/100) + 8.40 (40/100) = 15.864

Finally, the future cash flows can be discounted at the WACC obtained above as under –

	Y1	Y2	Y3
Future Cash flows (₹ crore)	100	120	150
Discount factor (₹ crore)	0.863	0.745	0.643
PVs of cash flows (₹ crore)	86.30	89.40	96.45
Value of Firm (₹ crore)			**272.15**

Question – 03

ABC, a large business house is planning to sell its wholly owned subsidiary KLM. Another large business entity XYZ has expressed its interest in making a bid for KLM. XYZ expects that after acquisition the annual earning of KLM will increase by 10%.

Following information, ignoring any potential synergistic benefits arising out of possible acquisitions, are available:

(i) Profit after tax for KLM for the financial year which has just ended is estimated to be ₹ 10 crore.

(ii) KLM's after-tax profit has an increasing trend of 7% each year and the same is expected to continue.

(iii) Estimated post tax market return is 10% and risk-free rate is 4%. These rates are expected to continue.

(iv) Corporate tax rate is 30%.

	XYZ	ABC	Proxy entity for KLM in the same line of business
No. of shares	100 lakhs	80 lakhs	---
Current share price	₹ 287	₹ 375	---
Dividend pay out	40%	50%	50%
Debt: Equity at market values	1 : 2	1:3	1:4
P/E ratio	10	13	12
Equity beta	1	1:1	1:1

Assume that gearing level of KLM to be the same as for ABC and a debt beta is zero.

You are required :

(a) To calculate appropriate cost of equity for KLM based on the data available for the proxy entity.

(b) A range of values for KLM both before and after any potential synergistic benefits to XYZ of the acquisition.

(c) Compute the market value of KLM as a part of ABC.

Note: Round off calculation up to 2 decimal and compute figure in ₹ crores.

(RTP May – 2025)

Solution:

(a) To calculate cost of equity for KLM first we shall calculate β of KLM as follows:

β (equity un-geared for the proxy company)

= 1.1 × 4/[4 + (1 – 0.3)] = 0.94

0.94 = β equity geared × 3/ [3 + (1 – 0.3)]

β equity geared = 1.16

Cost of equity = 0.04 + 1.16 × (0.10 – 0.04)

= 10.96%

(b) Based on the data available range of valuation can be computed using P/E and dividend-based valuation approach.

(i) P/E valuation (Based on earning of ₹ 10 Crore)

	Using proxy entity's P/E	Using XYZ's P/E
Pre synergistic value	= 12 ×₹ 10 Crore = ₹ 120 Crore	= 10 ×₹ 10 Crore = ₹ 100 Crore
Post synergistic value	= 12 ×₹ 10 Crore × 1.1 = ₹ 132 Crore	= 10 ×₹ 10 Crore × 1.1 = ₹ 110 Crore

(ii) Divided valuation model

	Based on 50% pay-out	Based on 40% pay-out
Pre synergistic value	$= \frac{0.5 \times 10 \times 1.07}{0.1096 - 0.07}$ = ₹ 135.10 Crore	$= \frac{0.4 \times 10 \times 1.07}{0.1096 - 0.07}$ = ₹ 108.08 Crore
Pro synergistic value	$= \frac{0.5 \times 10 \times 1.1 \times 1.07}{0.1096 - 0.07}$ = ₹ 148.61 Crore	$\frac{0.4 \times 10 \times 1.1 \times 1.07}{0.1096 - 0.07}$ = ₹ 118.89 Crore

(iii) Range of valuation

	P/E Based	Dividend Based
Pre synergistic	₹ 100 Crore	₹ 135.10
Post synergistic	₹ 110 Crore	₹ 148.61

(c) Market Price

Although no information is available about the value of KLM, it may be possible to calculate a market value based on proportion of earnings of ABC that is generated by KLM.

Market value of ABC = 80 Lakh Shares × ₹ 375 = ₹ 300 Crore

Post–tax earnings of ABC = ₹ 300 crore/13 = ₹ 23.08 Crore

If market value of ABC is allocated to KLM in the proportion of relative earning of KLM to that of ABC, KLM would have a market value of ₹ 300 crore × [10/23.08] = ₹ 129.98 Crore.

KLM's Post Tax earning = ₹ 10 Crore.

If ABC's P/E ratio is applied to it, the market value of KLM becomes ₹ 10 Crore × 13 = ₹ 130 Crore.

Question – 04

PN Limited submits the following details for the financial year ended on 31st March 2025:

Number of Equity Shares	1,50,000
Current market price per share	12
10% Debts	₹ 2,00,000
Cash and Cash Equivalents	₹ 5,00,000
Gross Profit	₹ 12,00,000
Indirect Expenses (Excluding Depreciation & Interest)	₹ 5,00,000
Depreciation	₹ 30,000
Risk-free rate of return	7%
Market rate of return	16%
Beta of the Company	0.8
Applicable Tax Rate	20%

On the basis of above details, you are required to calculate the following :

(i) Cost of Equity of the company using CAPM.

(ii) Earnings Per Share (EPS) of the company.

(iii) Equity Value of the company if applicable EBIDTA multiple is 4.

(iv) Enterprise Value of the company.

Calculation up to 2 decimal points.

(Exam September – 2025)

Solution:

(i) Cost of Equity using CAPM

7% + 0.8(16% – 7%) = 14.20%

(ii) Earnings per Share (EPS) **(₹)**

Gross Profit	12,00,000
less: Indirect Expenses	5,00,000
EBIDTA	7,00,000
Less: Depreciation	30,000
	6,70,000
Less: Interest on Debt (10% on ₹ 2,00,000)	20,000
	6,50,000
Less: Tax @ 20%	1,30,000
Profit After Tax (PAT)	5,20,000
Number of Equity Shares	1,50,000
Earnings Per Share (EPS)	3.47

(iii) Equity Value of the Company

EBITDA	₹ 7,00,000
EBITDA multiple	4
Capitalized Value	₹ 28,00,000
Less: Outstanding Debts	₹ 2,00,000
Equity Value	₹ 26,00,000

(iv) Enterprise Value of Company

Number of Equity Shares	1,50,000

Current Market Price (CMP)	12
Market Capitalization	₹ 18,00,000
Add: Outstanding Debts	₹ 2,00,000
Less: Cash and Cash Equivalent	₹ 5,00,000
Enterprise Value	15,00,000

Question – 05

ABC Ltd's share is currently traded at the price of ₹ 192.50 per share. Mr. Roni is planning to purchase the shares of the company. For this purpose, he has taken the services of a financial analyst to know whether the price of ABC Ltd. is fairly priced. The analyst has assembled the following information:

- The before-tax required rates of return on ABC Ltd. debt, preferred stock, and common stock are 8.60%, 11%, and 13%, respectively.
- The company's target capital structure is 20% debt, 30% preferred stock and 50% Common stock.
- The market value of the company's debt is ₹ 275 million and its preferred stock are valued at 120 million.
- ABC Ltd's free cash flow to the firm (FCFF) for the year just ended is ₹ 125 million. FCFF is expected to grow at a constant rate of 8% for the foreseeable future.
- The tax rate is 30%.
- ABC Ltd. has 20 million outstanding common shares.

You are required to —

(i) As a financial analyst, on the basis of value per share, advise Mr. Roni whether he should purchase the shares of the company at market price or not.

(ii) Assume, we are to get same value of equity as calculated in (i) for using FCFE approach, calculate free cash flow to the equity (FCFE) for the year just ended, if FCFE is expected to grow at a constant rate of 8.50% for the foreseeable future.

Calculation up to 2 decimal points.

(Exam September – 2025)

Solution:

Working Notes:

(I) Calculation of WACC

= 8.60% (1 – 0.30) × 20% + 11% × 30% + 13% × 50%

= 1.20% + 3.30% + 6.50% = 11%

(II) Value of Firm Based on FCFF

$$= \frac{₹\ 125\ \text{Millions}\ (1.08)}{0.11 - 0.08} = \frac{₹\ 135\ \text{Million}}{0.03} = ₹\ 4500\ \text{Million}$$

(i) To decide whether the value of share is justified let us compute the value per share based on FCFF as follows:

Value of Firm	₹ 4500 Million
Less: Value of Company's Debt	₹ 275 Million
Less: Value of Company's Preferred Stock	₹ 120 Million
Value of Equity Shares	₹ 4105 Million
No. of Equity Shares	20 Million
Value of Per Equity Share	₹ 205.25

Advise: Mr. Roni should purchase share at this price as it is underpriced.

(ii) Computation of Free Cash Flow to Equity

Value of one Equity Share as per FCFF ₹ 205.25

Accordingly, by using Growth Model formula we can find the FCFE per share as follows:

$$205.25 = \frac{FCFF\ (1.085)}{0.13 - 0.085}$$

FCFE per share = ₹ 8.51

No. of Equity Shares outstanding = 20 million

FCFE of the ABC Ltd. shall be
₹ 8.51 × 20 million = ₹ 170.20 million

Alternatively, this calculation can be made on the total capital instead of per share basis as follows:

$$4{,}105 = \frac{\text{FCFF } (1.085)}{0.13 - 0.085}$$

FCFE = ₹ 170.25 million

CHAPTER – 15

MERGER ACQUISITION & CORPORATE RESTRUCTURING

PART I: MERGER

STOCK DEAL

Question – 01

A Ltd., a listed company, is considering merger of B Ltd. which is also a listed company, with itself by means of a stock swap (exchange). B Ltd. has agreed to a plan under which A Ltd. will offer the current market value of B Ltd.'s shares.

Additional Information:

Particulars	A Ltd.	B Ltd.
Earnings after tax (₹)	10,00,000	2,50,000
Number of shares outstanding	4,00,000	2,00,000
Current market price (₹) per share	50	20

On the basis of above information, you are required to calculate the following:

(i) What is the pre-merger Earnings per Share (EPS) and P/E ratio of both the companies?

(ii) If B Ltd.'s P/E is 10, what is its current market price per share? What is the exchange ratio? What will A Ltd.'s post-merger EPS be?

(iii) What must the exchange ratio be for A Ltd.'s Pre-merger and Post-merger EPS to be the same?

(Exam November – 2019) (8 Marks)

Solution:

(i) Before Merger

	A Ltd.	B Ltd.
Earning after tax (₹)	10,00,000	2,50,000
No. of shares outstanding	4,00,000	2,00,000
EPS	₹ 2.50	₹ 1.25
Current Market Price/Share	₹ 50	₹ 20
P/E Ratio	20	16

(ii) If B Ltd.'s P/E Ratio is 10

Then, it's Current Market Price = 10 × ₹ 1.25 = ₹ 12.50

Exchange Ratio = 12.50 : 50 i.e. 1 share of A Ltd. for every 4 shares of B Ltd.

No. of shares to be issued = 50,000

A Ltd. Post-Merger EPS

Post-Merger Earning (10,00,000 + 2,50,000)	₹ 12,50,000
No. of Equity Shares after Merger (4,00,000 + 50,000)	4,50,000
EPS	₹ 2.78

(iii) Calculation of Exchange Ratio for A Ltd.'s pre-merger and post-merger EPS to be the same

= Total earnings/Pre-merger EPS of A Ltd.

= ₹ 12,50,000/₹ 2.50

= 5,00,000 shares

Now, number of shares to be issue to B Ltd.

= 5,00,000 – 4,00,000

= 1,00,000 shares

Therefore, the share exchange ratio is 1,00,000 : 2,00,000 or 1:2. It means for every two shares in B Ltd., one share should be issued from A Ltd.