MERGERS & ACQUISITIONS PRACTICAL PART

Example 1 : Siya Ltd. (Acquirer) plans to acquire Ram Ltd. (Target).

Particulars	**Siya Ltd.**	**Ram Ltd.**
Profit Before Tax (PBT)	₹20,00,000	₹10,00,000
Number of Shares	80,000	1,00,000
P/E Ratio	16	10
Tax Rate	30%	30%

Assume there is no synergy benefits

1. Siya Ltd. acquires Ram Ltd., and shares are exchanged **on the basis of market price**.
2. Siya Ltd. acquires Ram Ltd., and shares are exchanged **on the basis of EPS**.

Solution:	**Siya Ltd.**	**Ram Ltd.**
Profit After Tax { PBT (1 - .30) }	₹ 14,00,000	₹ 7,00,000
Number of Shares	80,000	1,00,000
Earning Per Shares ($\frac{PAT}{No\ of\ Shares}$)	17.5	7
PE Ratio (Given)	16	10
Market Price per Share (MPPS) (EPS x PE Ratio)	₹ 280	₹ 70
Market Capitalization (MPPS x No of Shares)	₹ 224,00,000	₹ 70,00,000

1. Siya Ltd. acquires Ram Ltd., and shares are exchanged **on the basis of market price**.

Exchange Ratio (ER) = $\frac{MPPS\ OF\ TARGET}{MPPS\ OF\ ACQUIRER} = \frac{70}{280}$ = .25 (.25 shares of Siya for every 1 share of Ram)

No of shares issued to Ram ltd = (ER x No of Shares of Target) = .25 x 100000 = 25,000 shares

If MPPS of target is not given in Q. but Total Consideration payable is given = ₹ 70,00000

Then, No. of Shares issued = $\frac{Total\ Consideration}{MPPS\ of\ Acquirer} = \frac{70,00,000}{280}$ = 25,000 shares

Eps after Merger = $\frac{Total\ Profit\ of\ both\ comapny\ after\ merger}{Total\ shares\ after\ merger} = \frac{1400000\ +700000}{80000+25000}$ = 20 per share

PE Ratio after Merger (Take Acquirer PE Ratio if Q is silent) = 16

MPPS after Merger = EPS x PE Ratio = 20 x 16 = 320 per share

Gain/Loss for Shareholders holding one share before merger

Particulars	SIYA Ltd.	RAM Ltd.
Price/Share (Before)	₹ 280.00	₹ 70.00
Price/Share (After)	₹ 320.00	₹ 80.00 (320 x .25)
Gain/Loss (A)	₹ 40.00 (Gain)	₹ 10.00 (Gain)
No of Shares (B)	80,000 shares	1,00,000 shares
Total Gain (A) X (B)	₹ 32,00,000 (Gain)*	₹ 10,00,000 (Gain)*

*Total Gain = Ram Profit x (Merger Co. PE Ratio – Target Co. PE Ratio) = 700000 x 6 = 42,00,000

EPS Accretion or Dilution for Shareholders holding one share before merger

Particulars	SIYA Ltd.	RAM Ltd.
EPS (Before)	₹ 17.50	₹ 7.00
EPS (After)	₹ 20.00	₹ 5.00 (20 x .25)
Gain/Loss on EPS (A)	₹ 2.50 (Gain)	₹ 2.00 (Loss)
No of Shares (B)	80,000 shares	1,00,000 shares
Total Gain/(Loss) (A x B)	₹ 2,00,000 Gain	(₹ 2,00,000) Loss

Net Effect = {2.5 x 80000} - {2 x 100000} = Nil

2. Siya Ltd. acquires Ram Ltd., and shares are exchanged **on the basis of EPS.**

Exchange Ratio = $\frac{EPS\ OF\ TARGET}{EPS\ OF\ ACQUIRER} = \frac{7}{17.5}$ = .40 (.40 shares of Siya for every 1 share of Ram)

No of shares issued to Ram ltd by Siya ltd. = .40 x 100000 = 40,000 shares

Eps after Merger = $\frac{Total\ Profit\ of\ both\ comapny\ after\ merger}{Total\ shares\ after\ merger} = \frac{1400000 + 700000}{80000 + 40000}$ = 17.5 per share

PE Ratio after Merger (Take Acquirer PE Ratio if Q is silent) = 16

MPPS after Merger = EPS x PE Ratio = 17.5 x 16 = 280 per share

Gain/Loss for Shareholders holding one share before merger

Particulars	SIYA Ltd.	RAM Ltd.
Price/Share (Before)	₹ 280.00	₹ 70.00
Price/Share (After)	₹ 280.00	₹ 112.00 (280 x .40)
Gain/Loss (A)	₹ 0.00 (Gain)	₹ 42.00 (Gain)
No of Shares	80,000 shares	1,00,000 shares
Total Gain (A x No of Shares)	₹ 0.00 (Gain)	₹ 42,00,000 (Gain)*

*Gain = Ram Profit x (Merger Co. PE Ratio – Target Co. PE Ratio) = 700000 x 6 = 42,00,000

EPS Accretion or Dilution for Shareholders holding one share before merger

Particulars	SIYA Ltd.	RAM Ltd.
EPS (Before)	₹ 17.50	₹ 7.00
EPS (After)	₹ 17.50	₹ 7.00 (17.5 x .40)
Gain/Loss on EPS (A)	₹ 0.00	₹ 0.00
Total Gain/(Loss) (A x No. of Shares)	₹ 0.00	₹ 0.00

If shares are exchanged on EPS basis, then there would not be any loss on EPS for both companies,

- ***MPPS = Market Price Per Share**
- ***EPS = Earning Per share**
- ***PE Ratio = Price Earning Ratio**
- ***EPS =** $\frac{PAT-Preference\ Dividend}{No\ of\ shares}$ **or EPS =** $\frac{PAT}{No\ of\ shares}$ **(if no issue of preference shares)**

EXAMPLE 2 : Jagati Ltd. (Acquirer) plans to acquire Rahul Ltd. (Target). The following financial details are provided:

Particulars	**Jagati Ltd. (Acquirer)**	**Rahul Ltd. (Target)**
Profit Before Interest and Tax	₹30,00,000	₹12,00,000
(-) Interest Expense	₹2,00,000	₹50,000
Profit Before Tax	₹28,00,000	₹11,50,000
(-) Tax @ 40%	₹11,20,000	₹4,60,000
Profit After Tax (PAT)	₹16,80,000	₹6,90,000
Number of Shares	2,00,000	1,00,000
EPS (PAT ÷ No of Shares)	₹8.4	₹6.9
P/E Ratio	15	12
Market Price per Share (EPS × PE)	₹126	₹82.8
Market Capitalization (Price × No. of Shares)	₹2,52,00,000	₹82,80,000

Jagati Ltd. will issue shares for the acquisition and shares are exchanged on the basis of market price. The post-merger synergy gain is ₹2,00,000.

Solution:

Step 1: Calculation of Exchange Ratio and Number of shares to be issued to Target Company

1. Exchange Ratio = $\frac{\text{MPPS of Target}}{\text{MPPS of Acquires}} = \frac{₹\ 82.8}{₹\ 126} = 0.657$

∴ No of Shares to be issued = ER × No of Shares of Target $= 0.657 \times 1{,}00{,}000 = 65{,}700\ Shares$

Step 2: Post-Merger Combined Profit

= ₹16,80,000 (Jagati) + ₹6,90,000 (Rahul) + ₹2,00,000 (Synergy Gains) = ₹25,70,000

Step 3 : Post Merger EPS and Price and Market Capitalisation

2. Total Shares Post Merger = 2,00,000 + 65,700 = 2,65,700 Shares

3. EPS After Merger = $\frac{\text{Total Profit}}{\text{Total Shares}} = \frac{₹25{,}70{,}000}{2{,}65{,}700} = ₹\ 9.6725$

4. Post-Merger Price per Share (using Jagati Ltd.'s P/E Ratio = 15) = ₹ 9.6725 × 15 = ₹145.0875

5. Market Capitalization of Merged Entity = ₹145.0875 × 2,65,700 = ₹385,49,749

Step 4: Gain/Loss for Shareholders

Particulars	Jagati Ltd.	Rahul Ltd.
Price/Share (Before)	₹ 126.0000	₹ 82.80
Price/Share (After)	₹ 145.0875	₹ 95.32 (145.0875 x .657)
Gain/Loss	₹ 19.0875 (Gain)	₹ 12.52 (Gain)

Step 5 : EPS Accretion or Dilution for Shareholders holding one share before mergers

Particulars	Jagati Ltd.	Rahul Ltd.
EPS (Before)	₹ 8.40	₹ 6.90
EPS (After)	₹ 9.6725	₹ 6.355 (9.6725 x .657)
Gain/Loss on EPS	₹ 1.2725 (Gain)	₹ 0.545 (loss)

Net Effect = {1.2725 x 200000} – {.545 x 100000} = 200000 (which is synergy gain)

EXAMPLE 3 : Jagati Ltd. (Acquirer) plans to acquire Rahul Ltd. (Target). The following financial details are provided:

Particulars	**Jagati Ltd. (Acquirer)**	**Rahul Ltd. (Target)**
Profit Before Interest and Tax	₹30,00,000	₹12,00,000
(-) Interest Expense	₹2,00,000	₹50,000
Profit Before Tax	₹28,00,000	₹11,50,000
(-) Tax @ 40%	₹11,20,000	₹4,60,000
Profit After Tax (PAT)	₹16,80,000	₹6,90,000
Number of Shares	2,00,000	1,00,000
EPS (PAT ÷ No of Shares)	₹8.4	₹6.9
P/E Ratio	15	12
Market Price per Share (EPS × PE)	₹126	₹82.8
Market Capitalization (Price × No. of Shares)	₹2,52,00,000	₹82,80,000

Jagati Ltd. will pay ₹85,00,000 in cash as consideration for the acquisition. The interest cost on this cash is 10%, and the tax rate is 40%. The post-merger synergy gain is ₹2,00,000.

Solution:

Step 1: Interest Cost on Cash Consideration Per Annum

Interest rate = 10%, Tax rate = 30%

Net Finance Cost (Post Tax) = ₹85,00,000 × 10% × (1 - 0.40) = ₹5,10,000

Step 2: Post-Merger Combined Profit

= ₹16,80,000 (Jagati) + ₹6,90,000 (Rahul) - ₹5,10,000 (Interest Cost) + ₹2,00,000 (Synergy Gains)
= ₹20,60,000

Step 3 : Post Merger EPS and price and Market Capitalisation

1. Total Shares (No New Shares Issued) = 2,00,000
2. EPS After Merger = $\frac{\text{Total Profit}}{\text{Total Shares}}$ = $\frac{₹20,60,,000}{2,00,000}$ = ₹ 10.30
3. Post-Merger Price per Share (using Jagati Ltd.'s P/E Ratio = 15) = ₹ 10.30× 15 = ₹ 154.50
4. Market Capitalization of Merged Entity = ₹154.50 × 2,00,000 = ₹ 309,00,000

Step 4: Gain/Loss for Shareholders

Particulars	Jagati Ltd.	Rahul Ltd.
Price/Share (Before)	₹126	₹82.8
Price/Share (After)	₹154.50	₹85.0 (Cash)
Gain/Loss	₹28.50 (Gain)	₹2.2 (Gain)

Step 5 : EPS Accretion or Dilution for Shareholders holding one share before mergers

Particulars	Jagati Ltd.	Rahul Ltd.
EPS (Before)	₹ 8.40	₹ 6.90
EPS (After)	₹ 10.30	----
Gain/Loss on EPS	₹ 1.90 (Gain)	----

Example 4:

ICICI Ltd. (Acquirer) plans to acquire AXIS Ltd. (Target). The following details are provided:

Particulars	**ICICI Ltd.**	**AXIS Ltd.**
Share Capital	₹200 L (₹100 Face Value)	₹100 L (₹10 Face Value)
Free Reserves & Surplus	₹800 L	₹500 L
P/E Ratio	10	4
Free Float Market Cap.	₹400 L	₹128 L
Promoter's Holding	50%	60%
Gross NPA	4 %	20 %

Weights for Exchange Ratio : Book Value = 25%, EPS = 30%, Market Price = 25%, NPA = 20%

Step 1 : Derived Values from given figures

Particulars	**ICICI Ltd.**	**AXIS Ltd.**
Total Value (Share Capital + Reserves)	₹1000 L	₹600 L
Number of Shares ($\frac{Share\ Capital}{Face\ Value}$)	2L	10L
Free Float Holding (1 – Promoter's Holding)	50%	40%
Market Capitalization ($\frac{Free\ Float\ Market\ Cap}{Free\ Float\ Holding}$)	₹800 L	₹320 L
Market Price per Share ($\frac{Market\ Capitlaization}{No\ of\ Shares}$)	₹400	₹32
Book Value per Share ($\frac{Sh\ Capital+Free\ Reserves}{No\ of\ Shares}$)	₹500	₹60
EPS ($\frac{Profit\ for\ ESH}{No\ of\ Shares}$) or ($\frac{MPPS}{PE\ RATIO}$)	₹40	₹8
Total Earnings (EPS X No of Shares)	₹80 L	₹80 L

Step 2: Determining Exchange Ratio

Basis	Exchange Ratio	Weight	Weighted Ratio
Book Value (Growth Indicator)	$\frac{BVPS\ OF\ TARGET\ i.e.\ 60}{BVPS\ OF\ ACQUIRER\ i.e.500}$ = 0.12	25%	0.12×0.25 = 0.03
EPS (Growth Indicator)	$\frac{EPS\ OF\ TARGET\ i.e.\ 8}{EPS\ OF\ ACQUIRER\ i.e.40}$ = 0.20	30%	0.20×0.50 = 0.06
Market Price (Growth Indicator)	$\frac{MPPS\ OF\ TARGET\ i.e.\ 32}{MPPS\ OF\ ACQUIRER\ i.e.400}$ = 0.08	25%	0.08×0.25 = 0.02
Gross NPA (Stress Indicator)	$\frac{NPA\ OF\ ACQUIRER\ i.e.\ 4\%}{NPA\ OF\ TARGET\ i.e.\ 20\%}$ = 0.20	20%	0.20x0.20 = 0.04
Total Exchange Ratio			= 0.15

1. Number of shares to be issued to Target = 10,00,000 shares x 0.15 = 1,50,000 shares

2. EPS after Acquisition = $\left(\frac{Total\ Profit\ for\ both\ ICICI\ and\ AXIS\ +\ Synergy\ benefits,\ if\ any}{Total\ No\ of\ Shares\ after\ Acquisition}\right)$

   $= \frac{80,00,000 + 80,00,000}{2,00,000 + 1,50,000}$ = 45.7143 per share

3. MPPS* after Acquisitions = EPS x PE Ratio of Acquirer = 45.7143 x 10 = ₹ 457.143

4. Market Capitalization = MPPS x No of shares = 457.143 x 3,50,000 = 1600,00,000 (Round off)

5. Promoter's Holding = 50% of 2,00,000 + 60% of 1,50,000 = 1,90,000 shares
Promoter's holding % = 190000/350000 = 54.2857 %
Promoter's Market Cap = 1600,00,000 x 54.2857 % = ₹ 8,68,57,120

6. Free Float holding (other than Promoter's) = 3,50,000 – 1,90,000 = 1,60,000 shares
Free Float holding % = 160000/350000 =45.7143 %
Free Float Market Cap = 1600,00,000 x 45.7143 % = ₹ 7,31,42,880

7. Market Capitalization = Promoter's Market Cap + Free Float Market Cap
= 86857120 + 73142880
= 1600,00,000

8. Gain/Loss for Shareholders

Particulars	ICICI Ltd.	AXIS Ltd.
Price/Share (Before)	₹ 400.000	₹ 32.00
Price/Share (After)	₹ 457.143	₹ 68.57 (457.143 x .15)
Gain/Loss	₹ 57.143 (Gain)	₹ 36.57 (Gain)

9. EPS Accretion or Dilution for Shareholders holding one share before mergers

Particulars	ICICI Ltd.	AXIS Ltd.
EPS (Before)	₹ 40.000	₹ 8.00
EPS (After)	₹ 45.7143	₹ 6.857 (45.7143 x .15)
Gain/Loss on EPS	₹ 5.7143 (Gain)	₹ 1.143 (Loss)

10. Calculation of Book Value per share after acquisitions

Sh Capital = 2 Lacs x 100 (ICICI) + 1.5 Lacs x 100 (Issued sh to AXIS by ICICI)	= 350 Lacs
Reserves = 800 Lacs (Acquirer) + 450 Lacs (Capital Reserve*)	= 1250 Lacs
Total Book Value after acquisitions	= 1600 Lacs

Book Value Per Share (1600 Lacs ÷ 3.5 *Lacs*) = 457.143

**Capital Reserve = Net Assets of AXIS Ltd taken over (Less) P.C. Paid in shares*
= {100 Lacs + 500 Lacs } (Less) {1.5 Lac shares x 100} = 450 Lacs

11. <u>Suppose Post Acquisition, Bonus Shares are issued to all 350000 shareholders in the ratio of 1: 2 and shares of ₹100 each are split into ₹ 5 per share, calculate BVPS, EPS, MPPS</u>

Sh Capital (3.5 lacs x 100 + 3.5 lacs x ½ x 100)	= 350 lacs + 175 lacs	= 525 lacs
Reserves	= 1250 Lacs – 175 Lacs	= 1075 lacs
Book Value		= 1600 lacs

No of shares after split into ₹ 5 per share = (5.25 lacs x 100/5) or (5.25 lacs x 20)
= 105 Lacs shares

Book Value Per Share = 1600 Lacs/105 Lacs = 15.24 per share

EPS = 160 Lacs / 105 Lac = 1.524 per share

MPPS = 1600 Lacs / 105 Lac = 15.24 per share

If PE Ratio is given in Question,
MPPS after Merger = EPS after Merger x PE Ratio of Merged Co.

However, if PE Ratio is not given in Question,
Total Market Cap = Market Cap of Acquirer + Market Cap of Target + Synergy (if any)

Or, MPPS after Merger $= \frac{Market\ Cap\ of\ Acquirer + Market\ Cap\ of\ Target + Synergy\ gain}{Total\ shares\ of\ Merged\ Company}$

Example 5 : (when PE Ratio is not given in Question)
AFC wishes to acquire BCD Ltd.

	AFC	BCD
No of shares outstanding	10,00,000	5,00,000
Market Price Per Share	100	20
Expected Dividend per share		0.60

Expected Growth Rate of BCD ltd is 7%, but Expected Growth Rate under control of AFC Ltd changes to 8%. Exchange ratio is 0.25 *(∴ No of shares issued to Target = 500000 x 0.25 = 125000 shares)*

We have studied in Security Valuation that, Price $(P_0) = \frac{D_1}{k_{e} - g}$ ➡ $20 = \frac{0.60}{K_e - 0.07}$ ➡ $k_e = 10\%$

After Acquisition, if growth rate changes to 8%, then BCD's Revised Price $(P_0) = \frac{0.60}{.10 - .08}$ = **₹ 30**

Due to Acquisition, Price of BCD ltd increases by ₹ 10 *(i.e. from ₹ 20 to ₹ 30 per share.)*

∴ Increase in value of BCD due to acquisition = 500000 x 10 = 50,00,000 (synergy gain)

∴ Total Market Cap after Acq. = value of Acquirer + value of Target + Synergy (if any)
= {10,00,000 x 100} + {500000 x 20 } + {500000 x 10} = 1150,00,000

∴ Price per share after Acquisition $= \frac{Market\ Capitalisation\ after\ acquisition}{Acquirer'Shares\ +\ Shares\ issued\ to\ Target} = \frac{1150,00,000}{10,00,000 + 1,25,000}$ = ₹ 102.22

Gain/ Loss to shareholders

	AFC Ltd	BCD Ltd.
MPPS before Acquisition	**100**	**20**
MPPS after Acquisition	**102.22**	**25.55 (102.22 x 0.25)**
Gain to shareholders per share	**2.22**	**5.55**

Calculation of Maximum Exchange Ratio and Minimum Exchange Ratio
We know that,
Price of Shares = EPS x PE Ratio

EPS after Merger $= \frac{\text{Combined Profit after Merger}}{Acquirer's\ Shares\ +\ shares\ issued\ to\ Target\ Co}$

Market Capitalization = Price x No. of shares

∴ Market Capitalization $= \{ \frac{\text{Combined Profit after Merger}}{Acquirer's\ Shares\ +\ shares\ issued\ to\ Target\ Co}$ x PE Ratio} x No. of Shares

Example 6 : ABC Ltd. plans to acquire XYZ Ltd. The following financial details are provided:

Particulars	ABC Ltd.	XYZ Ltd.
Total Earnings (₹ in Lakh)	₹1200	₹400
Number of Shares (in Lakh)	400	200
P/E Ratio	8	7

1. Determine the **maximum exchange ratio** acceptable to the shareholders of **ABC Ltd.**, if the P/E ratio of the merged entity is **8**. *(i.e. Acquirer wants to ensure that its pre merger market value does not decrease)*
2. Determine the **minimum exchange ratio** acceptable to the shareholders of **XYZ Ltd.**, if the P/E ratio of the merged entity is **10**. *(i.e. Target co. wants to ensure that its pre merger market value does not decrease)*
3. Determine the Maximum exchange ratio acceptable to shareholders of Acquirer i.e. ABC or Minimum exchange ratio acceptable to shareholders of Target i.e. XYZ without dilution of EPS. *(i.e. Both co. wants to ensure that its pre merger earning or EPS does not decrease)*

Solution :

1. **maximum exchange ratio** acceptable to the shareholders of **ABC Ltd**

Pre Merger Market Price of Acquirer ABC Ltd. (EPS x PE Ratio i.e. 3 x 8) = ₹ 24

∴ **Pre Merger Market Capitalisation** of Acquirer ABC Ltd (24 x 400 Lakh) = ₹ 9600 Lakhs

Post Merger Combined Earnings (1200 lakh + 400 Lakh) = 1600 Lakhs

∴ **Post Merger Market Capitalisation** (1600 Lakh X 8) = ₹ 12800 Lakhs

∴ Balance Market Capitalisation allotted to Target Co. which is acceptable to Acquirer = ₹ 3200 Lakhs

Let, No of Shares issued to shareholder issued to shareholders of Target Co. be D

Market Cap for Target = { $\frac{\text{Combined Profit after Merger}}{\text{Acquirer's Shares + shares issued to Target Co}}$ x PE Ratio} x No. of Shares of target

⇒ **3200 lakhs** = { $\frac{\textbf{1600 lakhs}}{\textbf{400 lakhs + D}}$ **x 8 } x D** ∴ **D = 133.333 lakhs**

∴ 133.333 lakhs shares issued to shareholders holding 200 lakh shares of target company.

∴ Exchange Ratio $= \frac{133.333\ lakhs}{200\ lakhs}$ = 0.6666 : 1

2. **minimum exchange ratio** acceptable to the shareholders of **XYZ Ltd**

Pre Merger Market Price of Target Co. ABC Ltd. (EPS X PE Ratio i.e. 2 x 7) = ₹ 14

∴ Pre Merger Market Capitalisation of Target Co. XYZ Ltd (14 x 200 Lakh) = ₹ 2800 Lakhs

∴ Minimum Market Capitalisation acceptable to Target Co. shareholders = ₹ 2800 Lakhs

Let, No of Shares issued to shareholder issued to shareholders of Target Co. be D

Market Cap for Target = { $\frac{\text{Combined Profit after Merger}}{\text{Acquirer's Shares + shares issued to Target Co}}$ x PE Ratio} x No. of Shares of target

⇒ **2800 lakhs** = { $\frac{\textbf{1600 lakhs}}{\textbf{400 lakhs + D}}$ **x 10 } x D** ∴ **D = 84.8485 lakhs**

∴ 133.333 lakhs shares issued to shareholders holding 200 lakh shares of target company.

∴ Exchange Ratio $= \frac{84.8485\ lakhs}{200\ lakhs}$ = 0.4242 : 1

3. Maximum exchange ratio acceptable to shareholders of Acquirer i.e. ABC without dilution of EPS or Minimum exchange ratio acceptable to shareholders of Target i.e. XYZ

Exchange Ratio $= \frac{EPS\ of\ Target}{EPS\ of\ Acquirer} = \frac{2}{3}$ = 0.6667 : 1 *(same ER acceptable for both ABC and XYZ)*

True Cost of Merger

The **true cost of a merger** refers to the premium that the acquiring company pays over the pre-merger market value of the target company. This premium represents the additional value transferred to the target company's shareholders due to anticipated synergies from the merger.

Example 7 :

	Elrond Ltd	Doom Ltd
Market Price Per Share	50	25
No of shares	20 Lacs	10 Lacs
Market Capitalisation	1,000 Lacs	250 Lacs

Merger is expected to generate synergy gains which have present value of ₹ 200 Lacs. Exchange Ratio is 0.5

Solution : Shares issued to Elrond = 0.5 x 10 lacs = 5 lacs

∴ Total shares post merger = 20 lacs + 5 lacs = 25 lacs

∴ Market Capitalisation post merger = 1000 + 250 + 200 = 1450 Lacs

Value of Elrond Ltd. = 1450 lacs x $\frac{20\ lacs}{25\ lacs}$ = 1160 lacs, Value of Doom Ltd. = 1450 lacs x $\frac{5\ lacs}{25\ lacs}$ = 290 lacs

True Cost of Merger = ₹290 lakhs (post-merger value) - ₹250 lakhs (pre-merger value) = ₹40 lakhs

Value of original shareholders :

It is the portion of the combined market value of merged entity without synergy gains.

Example 8 :

	P Ltd (Acquirer)	R Ltd (Target)
Market Value before Merger	126 lacs	85.05 lacs
No of shares	25 lacs	15 lacs

Exchange ratio = .80

Combined Market Value = 126 + 85.05 = 211.05 Lacs

No of shares issued to Target = .80 x 15 lacs = 12 Lacs

Total shares post merger = 25 lacs + 12 Lacs = 37 Lacs

∴Value of Original Shareholders : P Ltd = 211.05 x 25/37
= 142.60 Lacs

R Ltd = 211.05 x 12/37
= 68.45 Lacs

Example 9 – PE Ratio of Acquirer = 15,

If Post Merger ,

PE Ratio adversely change by 10%, Revised PE Ratio = 15 – 10% of 15 = 13.5

PE Ratio favourably change by 10%, Revised PE Ratio = 15 + 10% of 15 = 16.5

Other Important Points

1. Value of Acquisition = Value of Merged Entity (less) Value of Acquirer before Merger
2. Return on Equity (ROE) = $\frac{PAT}{EQUITY\ FUNDS}$ X 100
3. Retention Ratio = 1 – Dividend Payment Ratio
4. Growth Rate = ROE x Retention Ratio
5. Capital Adequacy Ratio (CAR % / CRWAR %) = $\frac{Total\ Capital}{Risky\ Weighted\ Assets}$
6. GNPA Ratio (Gross NPA %) = $\frac{Gross\ NPA}{Advances}$ x 100

7. Inventory Turnover Ratio = $\frac{COGS}{CLOSING\ STOCK}$

Example

The BOD is considering buying back 20% shares at a premium. The buyback amount is to be paid by raising a loan from the bank. The company has a market capitalisation of 15,000 crores and current eps is ₹ 600 with a PE Ratio of 25. The board expects a post buyback MPPS of ₹ 10,000. The PE Ratio post buy back will remain the same. The Loan can be availed at an interest rate of 16 %. Tax rate is 30 %.

1. The Interest Amount which can be paid for availing the bank loan

   Total Earnings before buyback { $\frac{Market\ Cap}{PE\ Ratio}$ } = $\frac{15000\ cr}{25}$ = 600 crores

   Market Price Per share = EPS x PE Ratio = 600 x 25 = 15000

   ∴ No of Shares = $\frac{Market\ Cap}{MPPS}$ = $\frac{15000\ cr}{15000}$ = 1 crore shares

   Since buy back is 20% , therefore Remaining shares after buyback is (1cr x 80%) = 0.80 cr

   Post Buyback Price given = ₹ 10,000 and PE Ratio (same) = 25

   ∴ Post Buyback EPS = $\frac{10000}{25}$ = ₹ 400

   ∴ Total Earnings Post Buyback = EPS X NOS. = 400 x 0.80 cr = 320 crores

   Interest Amount = $\frac{Earnings\ before\ buyback - Earnings\ post\ buyback}{1-tax\ rate}$ = $\frac{600\ cr - 320\ cr}{1-0.30}$ = 400 crores

2. Loan Amount to be raised = $\frac{Interest\ Amount}{Interest\ Rate}$ = $\frac{400\ cr}{16\%}$ = 2500 crores

3. Buyback Price per share = $\frac{Loan\ Amount\ Raised}{No\ of\ shares\ buyback}$ = $\frac{2500\ cr}{0.20\ cr\ shares}$ = 12500 per share

4. Buyback Premium per share = 12500 - 10000 = 2500