Mergers and Acquisition

Aspects relating to expansion or contraction of firm's operations or changes in its assets or financial or ownership structure are known as corporate re-structuring.
While there are many forms of corporate re-structuring, mergers and acquisitions, financial restructuring, de-mergers are some of most common forms of corporate restructuring.

The terms merger and acquisition are often used interchangeably, but they have distinct meanings.

1. **Merger (Amalgamation in India):** A merger refers to combination of 2 companies to form a new entity. Both entities dissolve, and a new company emerges.

2. **Acquisition:** In an acquisition, one company purchases another, which then ceases to exist as an independent entity. However, acquired company's operations may still continue under the acquiring company's control. **Example:** Tata Steel acquired Corus in 2007, making Corus a part of Tata Steel.

Tata Steel in the above example is **ACQUIRER** company while Corus Ltd is **ACQUIREE** company

The most common reason for Mergers and Acquisition (M&A) is **SYNERGY BENEFITS**

$$V(AB) > V(A) + V(B)$$

In other words, combined value of 2 firms or companies shall be more than their individual value.
Synergy is increase in earnings of combined firm over what 2 firms will achieve independently
Synergy can be due to economics of scale, central services such as accounting function etc

Formula to calculate EPS = $\dfrac{\text{Profits} - \text{Preference Dividend}}{\text{Total Number of Equity shares}}$

Formula of Market capitalization = Number of Equity shares x MPS

Formula to calculate EPS after merger =

$$\frac{\text{Earning of Acquirer } + \text{Earnings of Acquiree} + \text{Synergy benefit (if any)}}{\text{Total Equity shares of Acquirer} + \text{Number of Equity shares issued to Acquiree}}$$

If cash is paid to acquire Acquiree company, then following formula will be used to calculate EPS after merger =

$$\frac{\text{Earning of Acquirer } + \text{Earnings of Acquiree} + \text{Synergy benefit (if any)} - [\text{Cash Paid } \times \text{Interest Rate } (1 - \text{Tax Rate})]}{\text{Total Equity shares of Acquirer}}$$

If Question asks us to calculate effect on EPS after Merger on both acquirer and acquiree company:

Acquirer Company

Post Merger EPS	xx
Less: Pre Merger EPS of Acquirer co.	(xx)
	xx

Acquiree Company

Post Merger EPS x Exchange ratio	xx
Less: Pre Merger EPS of Acquirer co.	(xx)
	xx

Concept of Exchange ratio:
Number of shares to be issued by acquirer company to shareholder of acquire company

Example:
Acquirer company(R Ltd) Equity shares = 100,000
Acquiree company(G Ltd) Equity shares = 50,000 and exchange ratio is decided as 2:1, this means R Ltd will issue its 2 shares to shareholders of G Ltd in place of every 1 share held them in G Ltd

Therefore total 100,000 shares of R Ltd will be issued to the shareholders of G Ltd
Total shares in merged entity will be 100,000 + 100,000 = 200,000 shares

Formula to calculate exchange ratio: $\frac{\text{Parameter of Acquiree company}}{\text{Parameter of Acquirer Company}}$

For Example: If questions says, that exchange ratio should be based on EPS
EPS of R Ltd: 10 and EPS of G Ltd: 5

Then exchange ratio will be = $\frac{5}{10} = 1:2$
Which means one share of R Ltd will be issued in place of every 2 shares of G Ltd

However if question says exchange ratio should be based on a negative parameter like gross NPA (as asked in ICAI Mat TYK Q29), where NPA of acquiree is 40% while NPA of acquirer is 5%

So in this case if we use above discussed formula to calculate exchange ratio, then it will be 40/5= 8:1, which means for 1 share of acquiree, 8 shares of acquirer will be issued.
Here logically, since gross NPA of acquiree is more than acquirer, it is a negative factor for acquiree company since more Gross NPA is not good

Therefore correct formula in case of negative parameter to calculate exchange ratio will be :
Formula to calculate exchange ratio = $\frac{\text{Parameter of Acquirer company}}{\text{Parameter of Acquiree Company}}$

So correct exchange ratio will be: 5/40 = 1:8
i.e. 1 share of acquirer will be issued for every 8 shares of acquiree

If question asks us to calculate Exchange ratio where Acquirer company wants to maintain same EPS as was before merger =

First of all, we will calculate total number of shares which should be in merged entity after merger by using following formula = $\frac{\text{Earnings of both Acquirer and Acquiree+Synergy benefits}}{\text{EPS to be maintained}}$

Then we will calculate the number of shares to be issued by using following formula:
Shares issued to Acquiree company =
Total number of shares calculated above – Total shares of acquirer company before merger

Exchange ratio will then be = $\frac{\text{Shares issued to acquiree company as calculated above}}{\text{Total shares of Acquiree company before merger}}$

If question asks us to calculate Exchange ratio where Acquirer company wants to maintain same MPS as was before merger (Maximum exchange ratio acceptable to acquirer company) =

First of all, we will calculate total number of shares which should be in merged entity after merger by using following formula = $\frac{\text{Market Capitalization of Acquirer + Acquiree Company}}{\text{MPS to be maintained}}$

Then we will calculate the number of shares to be issued by using following formula:
Shares issued to Acquiree company =
Total number of shares calculated above – Total shares of acquirer company before merger

Exchange ratio will then be = $\frac{\text{Shares issued to acquiree company as calculated above}}{\text{Total shares of Acquiree company before merger}}$

Minimum exchange ratio acceptable to acquiree company which means MPS to be maintained after merger i.e. MPS before merger = MPS after merger x Exchange ratio

MPS before merger will be given in question
MPS after merger will be calculated as follows:

$$\frac{\text{Market Capitalization of Acquirer and acquiree before merger} + \text{Synergy benefits}}{\text{Total Equity shares of Acquirer} + (\text{Total Shares of acquiree x Exchange ratio})}$$

By putting above 2 values in formula mentioned above, Exchange ratio will be calculated

If question asks us to calculate Exchange ratio where Acquiree company wants to maintain same EPS as was before merger i.e Pre Merger EPS = Post Merger EPS x Exchange ratio

Pre Merger EPS will be given in Question
Post Merger EPS =

$$\frac{\text{Earning of Acquirer} + \text{Earnings of Acquiree} + \text{Synergy benefit (if any)}}{\text{Total Equity shares of Acquirer} + (\text{Total Shares of acquiree x Exchange ratio})}$$

By putting above 2 values in formula mentioned above, Exchange ratio will be calculated

If Question asks us to calculate total gain/ loss to shareholders of both the companies, then we will calculate gain or loss on the basis of MPS

Gain/ Loss to the shareholders of acquirer company =

Post Merger MPS	xx
Less: Pre Merger MPS	(xx)
Gain/ (Loss) per share	**xx**

Gain/ Loss to the shareholders of acquiree company =

Post Merger MPS x Exchange Ratio	xx
Less: Pre Merger MPS	(xx)
Gain/ (Loss) per share	**xx**

If Question asks us to calculate total gain/ loss from merger =

Market capitalization of merged entity	xx
Less: Market capitalization of (acquirer + acquire) before merger	(xx)
Total Gain/ (Loss)	**xx**

Concept taken from ICAI Mat TYK Q2

Concept of True cost of merger: It reflects actual cost incurred by acquiring company beyond just purchase price.

Formula of True Cost of Merger =
Market capitalization of acquiree co in merged entity – Pre Merger Market capitalization of acquiree co

If question asks us to calculate **Value of Acquisition** then following formula will be used =
Market Capitalization of merged entity – Pre Merger market capitalization of Acquirer company

If question asks us to calculate financial feasibility of acquisition (ICAI Mat TYK Q30)
In this case we will have to calculate NPV of acquisition and if NPV is positive then acquisition will be feasible.

NPV of acquisition

PV of Inflows arising after acquisition from acquisition of acquiree company	xx
Less: Initial Investment Initial Investment = (Shares Issues + External Liabilities settled + Debentures Issue – Realization from Debtors and Inventories – Cash)	(xx)
NPV	**xx**

Concept of Free float market capitalization: Market capitalization of shares held by outside public

Formula = Number of shares held by outside public x MPS

Number of shares held by outside public =
Total Number of shares in a company – Shares held by promoters,
Since total number of shares in a company will be equal to Number of shares held by promoters + Number of shares held by outside public

If question asks us to calculate book value per share, then formula is = $\frac{\text{Book Value}}{\text{Total number of Shares}}$

Book Value =
Total assets excluding preliminary expenses and Deferred revenue expenditure **(–)** Total Liabilities
OR
Equity share capital + Reserves and surplus (-) Preliminary expenses and Deferred revenue expenditure

Concept of Financial Restructuring
Financial restructuring is process where company reorganizes its capital structure to improve efficiency, reduce financial stress, or prepare for future growth. This may involve reducing debt, modifying equity, or revaluing assets.

Calculation of effect of financial restructuring: (Format taken from Illustration 1 of ICAI)

Reduction in Liabilities of Company	xx
Revaluation of assets in balance sheet	xx
 Less: Writing off debit balance in Profit and Loss account	(xx)
Less: Writing off cost of issue of debentures and Preliminary expenses	(xx)
Less: Creation of Provision for bad and doubtful debts	(xx)
Less: Writing down of assets in balance sheet	(xx)
Capital Reserve	**xx**