

# **EARNINGS PER SHARE**

AS  
20

## **INTRODUCTION**

The objective of AS 20 is to describe principles for determination and presentation of earnings per share which will improve comparison of performance among different enterprises for the same period and among different accounting periods for the same enterprise.

Earnings per share (EPS) is a financial ratio indicating the amount of profit or loss for the period attributable to each equity share and AS 20 gives computational methodology for determination and presentation of basic and diluted earnings per share.

EPS is of 2 types

- Basic EPS
- Diluted EPS

### Basic Earnings Per Share

Net profit (loss) attributable to equity shareholders

Weighted average number of equity shares outstanding during the period

- All items of income and expense which are recognised in a period, including tax expense and extraordinary items, are included in the determination of the net profit or loss for the period
- The number of shares used in the denominator for basic EPS should be the weighted average number of equity shares outstanding during the period.

### Presentation

An enterprise should present basic and diluted earnings per share on the face of the statement of profit and loss for each class of equity shares that has a different right to share in the net profit for the period. An enterprise should present basic and diluted earnings per share with equal prominence for all periods presented. AS 20 requires an enterprise to present basic and diluted earnings per share, even if the amounts disclosed are negative (a loss per share).

### Disclosure

An enterprise should disclose the following:

- a) Where the statement of profit and loss includes extraordinary items (as defined in AS 5), basic and diluted EPS computed on the basis of earnings excluding extraordinary items (net of tax expense);
- b) The amounts used as the numerators in calculating basic and diluted earnings per share, and a reconciliation of those amounts to the net profit or loss for the period;
- c) The weighted average number of equity shares used as the denominator in calculating basic and diluted earnings per share, and a reconciliation of these denominators to each other; and
- d) The nominal value of shares along with the earnings per share figures.

## ASSIGNMENT QUESTIONS

### Question 1 *(ICAI Study Material)*

Pg no. \_\_\_\_\_

| Date                     | Particulars                  | Purchased | Sold | Balance |
|--------------------------|------------------------------|-----------|------|---------|
| 1 <sup>st</sup> January  | Balance at beginning of year | 1800      | -    | 1800    |
| 31 <sup>st</sup> May     | Issue of shares for cash     | 600       | -    | 2400    |
| 1 <sup>st</sup> November | Buy back of shares           | -         | 300  | 2100    |

Calculate weighted number of shares. Calculate Earnings per share also if Net Profit for the year is ₹ 16,80,000.

### Question 2

Pg no. \_\_\_\_\_

From the following information relating to Y Ltd. Calculate Earnings Per Share (EPS):

| Particulars                                            | ₹ (in crores) |
|--------------------------------------------------------|---------------|
| Profit before V.R.S. payments but after depreciation   | 75.00         |
| Depreciation                                           | 10.00         |
| VRS payments                                           | 32.10         |
| Provision for taxation                                 | 15.00         |
| Paid up share capital (shares of ₹ 10 each fully paid) | 93.00         |

### Question 3 *(ICAI Study Material)*

Pg no. \_\_\_\_\_

| Date                     | Particulars                  | No. of Shares | Face Value | Paid up Value |
|--------------------------|------------------------------|---------------|------------|---------------|
| 1 <sup>st</sup> January  | Balance at beginning of year | 1800          | ₹ 10       | ₹ 10          |
| 31 <sup>st</sup> October | Issue of shares              | 600           | ₹ 10       | ₹ 5           |

Calculate weighted number of shares.

### Question 4

Pg no. \_\_\_\_\_

In April, 2019 a Limited Company issued 1,20,000 equity shares of ₹ 100 each. ₹ 50 per share was called up on that date which was paid by all shareholders. The remaining ₹ 50 was called up on 1.9.2019. All shareholders paid the sum in September, 2019, except on shareholder having 24,000 shares. The net profit for the year ended 31.3.2020 is ₹ 2,64,000 after dividend on preference shares of ₹ 64,000.

Compute basic EPS for year ended 31.3.2020 as per AS 20.

### Question 5 *(ICAI Study Material)*

Pg no. \_\_\_\_\_

|                                                       |             |
|-------------------------------------------------------|-------------|
| Net profit for the year 2019                          | ₹ 18,00,000 |
| Net profit for the year 2020                          | ₹ 60,00,000 |
| No. of equity shares outstanding until 30th Sept 2020 | 20,00,000   |

Bonus issue 1st October 2020 was 2 equity shares for each equity share outstanding at 30<sup>th</sup> September, 2020. Calculate Basic Earnings Per Share.

### Question 6

Pg no. \_\_\_\_\_

(i) State how would you compute, based on AS-20, the weighted average number of equity shares in the following case:

| Date                           | Particulars                   | No. of Shares |
|--------------------------------|-------------------------------|---------------|
| 1 <sup>st</sup> April, 2019    | Balance of equity shares      | 4,80,000      |
| 31 <sup>st</sup> August, 2019  | Equity shares issued for cash | 3,60,000      |
| 1 <sup>st</sup> February, 2020 | Equity shares bought back     | 1,80,000      |
| 31 <sup>st</sup> March, 2020   | Balance of equity shares      | 6,60,000      |

(ii) Compute adjusted earnings per share and basic EPS based on the following information:

|                                                            |             |
|------------------------------------------------------------|-------------|
| Net profit 2018-19                                         | ₹ 11,40,000 |
| Net profit 2019-20                                         | ₹ 22,50,000 |
| No. of equity shares outstanding until 31st December, 2019 | 5,00,000    |

Bonus issue on 1<sup>st</sup> Jan, 2020, 1 equity share for each equity share outstanding at 31st Dec, 2019.

**Question 7** *(ICAI Study Material)*

Pg no. \_\_\_\_\_

X Ltd. supplied the following information. You are required to compute the basic earnings per share. (Accounting Year 01.01 to 31.12)

| Net Profit For | ₹         |
|----------------|-----------|
| Year 2021      | 20,00,000 |
| Year 2022      | 30,00,000 |

No of shares outstanding prior to right issue 10,00,000 shares.

Right issue : One new share for each four shares outstanding i.e. 2,50,000 shares.

: Right Issue price ₹ 20

: Last date to exercise right 31st March, 2022

Fair value of one equity share immediately prior to exercise of rights on 31.03.2022 is ₹ 25.

**Question 8** *(Inter Nov 2023) (5 Marks)*

Pg no. \_\_\_\_\_

Sapphire Limited earned Net profit of ₹ 39,00,000 and ₹ 59,40,000 for the years 2021-22 & 2022-23 respectively. The following information were given for 2022-2023:

(i) The company declared Rights issue of two new shares for each five outstanding shares.

(ii) 4,00,000 shares were outstanding prior to Rights issue.

(iii) Rights issue price was ₹ 27.50 and the last date to exercise rights was 1<sup>st</sup> July, 2022.

(iv) Fair value of one equity share immediately prior to exercise of rights on 1<sup>st</sup> July, 2022 was ₹ 143.

You are required to Compute Basic Earnings Per Share as per AS-20:

1. for the year 2021-22, and

2. for the year 2022-23

**Question 9** *(ICAI Study Material)*

Pg no. \_\_\_\_\_

Calculate Diluted EPS.

|                                                                                                         |           |
|---------------------------------------------------------------------------------------------------------|-----------|
| No. of equity shares outstanding                                                                        | 30,00,000 |
| Basic earnings per share                                                                                | 5         |
| No. of 12% convertible debentures of ₹ 100 each.<br>Each debenture is convertible into 10 equity shares | 50,000    |
| Tax rate                                                                                                | 30%       |

**Question 10**

Pg no. \_\_\_\_\_

Calculate the diluted earnings per share from the following information:

|                                                                                                        |            |
|--------------------------------------------------------------------------------------------------------|------------|
| Net profit for the current year                                                                        | ₹17,10,000 |
| No. of equity shares outstanding                                                                       | 4,00,000   |
| No. of 8% convertible debentures of ₹ 100 each.<br>Each debenture is convertible into 10 equity shares | 20,000     |
| Interest expenses for the current year                                                                 | ₹ 1,20,000 |
| Tax relating to interest expenses                                                                      | 30%        |

**Question 11** *(ICAI Study Material)*

Pg no. \_\_\_\_\_

|                                                                     |                 |
|---------------------------------------------------------------------|-----------------|
| Net profit for the year 2020                                        | ₹ 12,00,000     |
| Weighted avg. no. of equity shares outstanding during the year 2020 | 5,00,000 shares |

|                                                               |                 |
|---------------------------------------------------------------|-----------------|
| Average fair value of one equity share during the year 2020   | ₹ 20.00         |
| Weighted avg. no. of shares under option during the year 2020 | 1,00,000 shares |
| Exercise price for shares under option during the year 2020   | ₹ 15.00         |

Compute Basic and Diluted Earnings Per Share.

**Question 12** \_\_\_\_\_ Pg no. \_\_\_\_\_

Calculate Basic EPS & Diluted EPS for the year 2019-20

Earnings ₹ 10 Lacs

|            |                                  |                                                    |
|------------|----------------------------------|----------------------------------------------------|
| 01/04/2019 | Equity Shares                    | 2,00,000 shares                                    |
|            | 8% Convertible Debentures        | ₹ 3,00,000 (convertible into 50,000 equity shares) |
|            | 9% Convertible Preference Shares | ₹ 4,00,000 (convertible into 1,000 equity shares)  |
| 01/07/2019 | Shares Warrants Issues           | 10,000                                             |

Consider tax rate of 30%

**Question 13** *(RTP May 2021) / (ICAI Study Material)* \_\_\_\_\_ Pg no. \_\_\_\_\_

In the following list of shares issued, for the purpose of calculation of weighted average number of shares, from which date weight is to be considered:

- Equity Shares issued in exchange of cash,
- Equity Shares issued as a result of conversion of a debt instrument,
- Equity Shares issued in exchange for the settlement of a liability of the enterprise,
- Equity Shares issued for rendering of services to the enterprise,
- Equity Shares issued in lieu of interest and/or principal of an other financial instrument,
- Equity Shares issued as consideration for the acquisition of an asset other than in cash.

Also define Potential Equity Share.

**Solution**

The following dates should be considered for consideration of weights for the purpose of calculation of weighted average number of shares in the given situations:

- Date of Cash receivable
- Date of conversion
- Date on which settlement becomes effective
- When the services are rendered
- Date when interest ceases to accrue
- Date on which the acquisition is recognised.

A Potential Equity Share is a financial instrument or other contract that entitles, or may entitle its holder to equity shares.

**Question 14** *(RTP Nov 2021)* \_\_\_\_\_ Pg no. \_\_\_\_\_

AB Limited is a company engaged in manufacturing industrial packaging equipment. As per the terms of an agreement entered with its debenture holders, the company is required to appropriate adequate portion of its profits to a specific reserve over the period of maturity of the debentures such that, at the redemption date, the reserve constitutes at least half the value of such debentures. As such appropriations are not available for distribution to the equity shareholders, AB Limited has excluded this from the numerator in the computation of Basic EPS. Is this treatment correct as per provisions of AS 20?

**Solution**

The appropriation made to such a mandatory reserve created for redemption of debentures would be included in the net profit attributable to equity shareholders for the computation of Basic EPS. AS 20 states that "For the purpose of calculating basic earnings per share, the net

profit or loss for the period attributable to equity shareholders should be the net profit or loss for the period after deducting preference dividends and any attributable tax thereto for the period". With an emphasis on the phrase attributable to equity shareholders, it may be construed that such amounts appropriated to mandatory reserves, though not available for distribution as dividend, are still attributable to equity shareholders. Accordingly, these amounts should be included in the computation of Basic EPS. In view of this, the treatment made by the company is not correct.

**Question 15** (RTP May 2022) / (ICAI Study Material)

Pg no. \_\_\_\_\_

- a) Stock options have been granted by AB Limited to its employees and they vest equally over 5 years, i.e., 20 per cent at the end of each year from the date of grant. The options will vest only if the employee is still employed with the company at the end of the year. If the employee leaves the company during the vesting period, the options that have vested can be exercised, while the others would lapse. Currently, AB Limited includes only the vested options for calculating Diluted EPS. Should only completely vested options be included for computation of Diluted EPS? Is this in accordance with the provisions of AS 20? Explain.
- b) X Limited, as at March 31, 2021, has income from continuing ordinary operations of ₹ 2,40,000, a loss from discontinuing operations of ₹ 3,60,000 and accordingly a net loss of ₹ 1,20,000. The Company has 1,000 equity shares and 200 potential equity shares outstanding as at March 31, 2021. You are required to compute Basic and Diluted EPS?

**Solution**

- a) AS 20 states that "A potential equity share is a financial instrument or other contract that entitles, or may entitle, its holder to equity shares". Options including employee stock option plans under which employees of an enterprise are entitled to receive equity shares as part of their remuneration and other similar plans are examples of potential equity shares. Further, for the purpose of calculating diluted earnings per share, the net profit or loss for the period attributable to equity shareholders and the weighted average number of shares outstanding during the period should be adjusted for the effects of all dilutive potential equity shares.

The current method of calculating Diluted EPS adopted by AB limited is not in accordance with AS 20. The calculation of Diluted EPS should include all potential equity shares, i.e., all the stock options granted at the balance sheet date, which are dilutive in nature, irrespective of the vesting pattern. The options that have lapsed during the year should be included for the portion of the period the same were outstanding, pursuant to the requirement of the standard.

- b) As per AS 20 "Potential equity shares should be treated as dilutive when, and only when, their conversion to equity shares would decrease net profit per share or increase loss per share from continuing ordinary operations". As income from continuing ordinary operations, ₹ 2,40,000 would be considered and not ₹ (1,20,000), for ascertaining whether 200 potential equity shares are dilutive or anti-dilutive. Accordingly, 200 potential equity shares would be dilutive potential equity shares since their inclusion would decrease the net profit per share from continuing ordinary operations from ₹ 240 to ₹ 200. Thus, the basic E.P.S would be ₹ (120) and diluted E.P.S. would be ₹ (100).

## PRACTICE QUESTIONS

### Question 1

Pg no. \_\_\_\_\_

Compute Basic Earnings per share from the following information:

| Date                         | Particulars                          | No. of Shares |
|------------------------------|--------------------------------------|---------------|
| 1 <sup>st</sup> April, 2019  | Balance at the beginning of the year | 1500          |
| 1 <sup>st</sup> August, 2019 | Issue of shares for cash             | 600           |
| 31 <sup>st</sup> March, 2020 | Buy back of shares                   | 500           |

Net profit for the year ended 31st March, 2020 was ₹ 2,75,000.

### Solution

Computation of weighted average number of shares outstanding during the period

| Date                         | No. of Shares | Period Outstanding | Weighted average number of shares |
|------------------------------|---------------|--------------------|-----------------------------------|
| 1 <sup>st</sup> April, 2019  | 1500          | 12 months          | $1,500 \times 12/12 = 1,500$      |
| 1 <sup>st</sup> August, 2019 | 600           | 8 months           | $600 \times 8/12 = 400$           |
| 31 <sup>st</sup> March, 2020 | 500           | 0 months           | $(500) \times 0/12 = (0)$         |
|                              |               |                    | 1,900                             |

$$\begin{aligned}
 \text{Basic Earnings per share (EPS)} &= \frac{\text{Net profit attributable to equity shareholders}}{\text{Weighted average number of equity shares O/s during year}} \\
 &= \frac{2,75,000}{1,900 \text{ Shares}} \\
 &= ₹ 144.74 \text{ per share}
 \end{aligned}$$

### Question 2 (Inter May 2018) (5 Marks) / (ICAI Study Material)

Pg no. \_\_\_\_\_

As at 1st April, 2019 a company had 6,00,000 equity shares of ₹ 10 each (₹ 5 paid up by all shareholders). On 1st September, 2019 the remaining ₹ 5 was called up and paid by all shareholders except one shareholder having 60,000 equity shares. The net profit for the year ended 31st March, 2020 was ₹ 21,96,000 after considering dividend on preference shares totalling to ₹ 3,40,000. Compute Basic EPS for the year ended 31st March, 2020 as per Accounting Standard 20 "Earnings Per Share".

### Solution

$$\begin{aligned}
 \text{Basic Earnings per share (EPS)} &= \frac{\text{Net profit attributable to equity shareholders}}{\text{Weighted average number of equity shares outstanding during year}} \\
 &= \frac{21,96,000}{4,57,500 \text{ Shares (as per working note)}} \\
 &= ₹ 4.80 \text{ per share}
 \end{aligned}$$

### Working Note:

Calculation of weighted average number of equity shares

As per AS 20 'Earnings Per Share', partly paid equity shares are treated as a fraction of equity share to the extent that they were entitled to participate in dividend relative to a fully paid equity share during the reporting period. Assuming that the partly paid shares are entitled to participate in the dividend to the extent of amount paid, weighted average number of shares will be calculated as follows:

| Date     | No. of Equity shares | Amount paid per share | Weighted average no. of equity shares         |
|----------|----------------------|-----------------------|-----------------------------------------------|
| 1.4.2019 | 6,00,000             | 5                     | $6,00,000 \times 5/10 \times 5/12 = 1,25,000$ |

|              |          |    |                                           |
|--------------|----------|----|-------------------------------------------|
| 1.9.2019     | 5,40,000 | 10 | $5,40,000 \times 7/12 = 3,15,000$         |
| 1.9.2019     | 60,000   | 5  | $60,000 \times 5/10 \times 7/12 = 17,500$ |
| Total shares |          |    | 4,57,500                                  |

**Question 3**

Pg no. \_\_\_\_\_

- (i) Explain the concept of 'weighted average number of equity shares outstanding during the period'. Also compute weighted average no. of equity shares in the following case:

| Date                           | Particulars                   | No. of Shares |
|--------------------------------|-------------------------------|---------------|
| 1 <sup>st</sup> April, 2019    | Balance of equity shares      | 7,20,000      |
| 31 <sup>st</sup> August, 2019  | Equity shares issued for cash | 2,40,000      |
| 1 <sup>st</sup> February, 2020 | Equity shares bought back     | 1,20,000      |
| 31 <sup>st</sup> March, 2020   | Balance of equity shares      | 8,40,000      |

- (ii) Compute adjusted earnings per share and basic EPS based on the following information:

|                                                            |             |
|------------------------------------------------------------|-------------|
| Net profit 2018-19                                         | ₹ 7,20,000  |
| Net profit 2019-20                                         | ₹ 24,00,000 |
| No. of equity shares outstanding until 31st December, 2019 | 8,00,000    |

Bonus issue on 1<sup>st</sup> Jan, 2020, 2 equity shares for each equity share o/s at 31<sup>st</sup> December, 2019.

**Solution**

As per AS 20, "Earnings Per Share", the weighted average number of equity shares outstanding during the period reflects the fact that the amount of shareholders' capital may have varied during the period as a result of a larger or less number of shares outstanding at any time. For the purpose of calculating basic earnings per share, the number of equity shares should be the weighted average number of equity shares outstanding during the period.

Weighted average number of equity shares

|                        |                 |
|------------------------|-----------------|
| $7,20,000 \times 5/12$ | 3,00,000 shares |
| $9,60,000 \times 5/12$ | 4,00,000 shares |
| $8,40,000 \times 2/12$ | 1,40,000 shares |
|                        | 8,40,000 shares |

Earning per share

Basic EPS 2019-20 = ₹ 24,00,000 / 24,00,000 = ₹ 1

Adjusted EPS 2018-19 = ₹ 7,20,000 / 24,00,000 = ₹ 0.30

Since the bonus issue is an issue without consideration, the issue is treated as if it had occurred prior to the beginning of the year 2018-19, the earliest period reported.

**Question 4 (ICAI Study Material)**

Pg no. \_\_\_\_\_

From the following information compute Basic and Adjusted Earnings per share:

|                                         |                      |
|-----------------------------------------|----------------------|
| Net Profit for 2018-19                  | ₹ 11 lakhs           |
| Net Profit for 2019-20                  | ₹ 15 lakhs           |
| No. of shares before Rights Issue       | 5 Lakhs              |
| Rights issue Ratio                      | One for Every 5 Held |
| Issue Price                             | ₹ 15                 |
| Last Date of exercising Rights option   | 01-06-2019           |
| Fair value of share before Rights Issue | ₹ 21 per share       |

**Solution**

Computation of theoretical ex-rights fair value per share

= Fair value of o/s shares prior to right exercise + Total Amt. received from exercise of rights  
Number of shares outstanding prior to exercise + number of shares issued in the exercise



$$= \frac{(21.00 \times 5,00,000 \text{ shares}) + (15.00 \times 1,00,000 \text{ shares})}{5,00,000 \text{ shares} + 1,00,000 \text{ shares}}$$

Theoretical ex-rights fair value per share = ₹ 20.00

Paid Part in Right Issue =  $1,00,000 \times 15/20 = 75,000$  shares

Bonus Part in Right Issue =  $1,00,000 - 75,000 = 25,000$  shares

Computation of earnings per share

|                                                                                                                                                | Year 2018-19 | Year 2019-20 |
|------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|
| EPS for the year 2018-19 as originally reported:<br>(₹ 11,00,000/5,00,000 shares)                                                              | ₹ 2.20       |              |
| EPS for the year 2018-19 restated for rights issue:<br>[₹ 11,00,000/ (5,00,000 shares + 25,000 shares)]                                        | ₹ 2.10       |              |
| EPS for the year 2019-20 including effects of rights issue<br>$\frac{15,00,000}{\{(5,00,000 + 25,000) \times 12/12\} + (75,000 \times 10/12)}$ |              | ₹ 2.55       |

Alternatively : Computation of adjustment factor

Fair value per share prior to exercise of rights =  $\frac{21.00}{20.00} = 1.05$

Theoretical ex - rights value per share = 20.00

Computation of earnings per share

|                                                                                                                                                | Year 2018-19 | Year 2019-20 |
|------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|
| EPS for the year 2018-19 as originally reported:<br>(₹ 11,00,000/5,00,000 shares)                                                              | ₹ 2.20       |              |
| EPS for the year 2018-19 restated for rights issue:<br>[₹ 11,00,000/ (5,00,000 shares x 1.05)]                                                 | ₹ 2.10       |              |
| EPS for the year 2019-20 including effects of rights issue<br>$\frac{15,00,000}{(5,00,000 \times 1.05 \times 2/12) + (6,00,000 \times 10/12)}$ |              | ₹ 2.55       |

### Question 5 (RTP Nov 2023)

Pg no. \_\_\_\_\_

|                                                 |                                                                          |
|-------------------------------------------------|--------------------------------------------------------------------------|
| Net Profit for 2021-22                          | 30,00,000                                                                |
| Net Profit for 2022-23                          | 50,00,000                                                                |
| No. of shares outstanding prior to Rights Issue | 20,00,000 shares                                                         |
| Rights issue Ratio                              | One share for each five equity shares outstanding (i.e. 4,00,000 shares) |
| Rights Issue Price                              | ₹ 20                                                                     |
| Last day to exercise rights                     | 1 <sup>st</sup> June ,2022                                               |
| Fair value of share before Rights Issue         | ₹ 26                                                                     |

Compute Basic EPS for FY 2021-22 , FY 2022-23 and restated EPS for FY 2021-22.

### Solution

Computation of theoretical ex-rights fair value per share

=  $\frac{\text{Fair value of o/s shares prior to right exercise} + \text{Total Amt. received from exercise of rights}}{\text{Number of shares outstanding prior to exercise} + \text{number of shares issued in the exercise}}$

=  $\frac{(26 \times 20,00,000 \text{ shares}) + (20 \times 4,00,000 \text{ shares})}{20,00,000 \text{ shares} + 4,00,000 \text{ shares}}$

Theoretical ex-rights fair value per share = ₹ 25

Paid Part in Right Issue =  $4,00,000 \times 20/25 = 3,20,000$  shares

Bonus Part in Right Issue =  $4,00,000 - 3,20,000 = 80,000$  shares

Computation of earnings per share



|                                                                                                                                                 | Year 21 – 22 | Year 22 – 23 |
|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|
| EPS for the year 21 – 22 as originally reported:<br>(₹ 30,00,000/20,00,000 shares)                                                              | 1.50         |              |
| EPS for the year 21 – 22 restated for rights issue:<br>[₹ 30,00,000/(20,00,000 shares + 80,000 shares)]                                         | 1.44         |              |
| EPS for the year 22-23 including effects of rights issue<br>$\frac{50,00,000}{\{(20,00,000 + 80,000) \times 12/12\} + (3,20,000 \times 10/12)}$ |              | 2.13         |

**Question 6** (Inter Nov 2019) (5 Marks) / (RTP May 2023)

Pg no. \_\_\_\_\_

Following information is supplied by K Ltd.:

Number of shares outstanding prior to right issue - 2,50,000 shares.

Right issue - two new share for each 5 outstanding shares (i.e. 1,00,000 new shares)

Right issue price - ₹ 98

Last date of exercising rights - 30-06-2019.

Fair value of one equity share immediately prior to exercise of right on 30-06-2019 is ₹ 102.

Net Profit to equity shareholders:

2018-2019 - ₹ 50,00,000

2019-2020 ₹ 75,00,000

You are required to calculate the basic earnings per share as per AS-20 Earnings per Share.

**Solution**

Computation of theoretical ex-rights fair value per share

= Fair value of o/s shares prior to right exercise + Total Amt. received from exercise of rights

Number of shares outstanding prior to exercise + number of shares issued in the exercise

=  $\frac{(102.00 \times 2,50,000 \text{ shares}) + (98.00 \times 1,00,000 \text{ shares})}{2,50,000 \text{ shares} + 1,00,000 \text{ shares}}$

Theoretical ex-rights fair value per share = ₹ 100.86

Paid Part in Right Issue =  $1,00,000 \times 98/100.86 = 97,164 \text{ shares}$

Bonus Part in Right Issue =  $1,00,000 - 97,164 = 2,836 \text{ shares}$

Computation of earnings per share

|                                                                                                                                            | Year 18 – 19 | Year 19 – 20 |
|--------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|
| EPS for the year 18 – 19 as originally reported:<br>(₹ 50,00,000/2,50,000 shares)                                                          | 20.00        |              |
| EPS for the year 18 – 19 restated for rights issue:<br>[₹ 50,00,000/(2,50,000 shares + 2,836 shares)]                                      | 19.78        |              |
| EPS for the year 19-20 including effects of rights issue<br>$\frac{75,00,000}{\{(2,50,000 + 2,836) \times 12/12\} + (97,164 \times 9/12)}$ |              | 23.03        |

**Question 7** (RTP Nov 2020)

Pg no. \_\_\_\_\_

A-One Limited supplied the following information. You are required to compute earnings per share as per AS 20. Net Profit attributable to equity shareholders

|              |             |
|--------------|-------------|
| Year 2018-19 | 1,00,00,000 |
| Year 2019-20 | 1,50,00,000 |

No of shares outstanding prior to right issue 50,00,000 shares.

Right issue : One new share for each four shares outstanding i.e. 12,50,000 shares.

: Right Issue price ₹ 96

: Last date to exercise right 30<sup>th</sup> June, 2019

Fair value of one equity share immediately prior to exercise of rights on 30.06.2019 is ₹ 101.

**Solution**

Computation of theoretical ex-rights fair value per share

=  $\frac{\text{Fair value of o/s shares prior to right exercise} + \text{Total Amt. received from exercise of rights}}{\text{Number of shares outstanding prior to exercise} + \text{number of shares issued in the exercise}}$

=  $\frac{(101.00 \times 50,00,000 \text{ shares}) + (96.00 \times 12,50,000 \text{ shares})}{50,00,000 \text{ shares} + 12,50,000 \text{ shares}}$

Theoretical ex-rights fair value per share = ₹ 100

Paid Part in Right Issue =  $12,50,000 \times \frac{96}{100} = 12,00,000$  shares

Bonus Part in Right Issue =  $12,50,000 - 12,00,000 = 50,000$  shares

Computation of earnings per share

|                                                                                                                                                                   | Year 18 - 19 | Year 19 - 20 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|
| EPS for the year 18 - 19 as originally reported:<br>(₹ 1,00,00,000/50,00,000 shares)                                                                              | 2.00         |              |
| EPS for the year 18 - 19 restated for rights issue:<br>[₹ 1,00,00,000/(50,00,000 shares + 50,000 shares)]                                                         | 1.98         |              |
| EPS for the year 19-20 including effects of rights issue<br>$\frac{1,50,00,000}{\{(50,00,000 + 50,000) \times \frac{12}{12}\} + (12,00,000 \times \frac{9}{12})}$ |              | 2.52         |

**Question 8** *(Inter May 2022) (5 Marks) / (ICAI Study Material)*

Pg no. \_\_\_\_\_

NAT, a listed entity, as on 1<sup>st</sup> April, 2021 had the following capital structure:

|                                                               | ₹           |
|---------------------------------------------------------------|-------------|
| 10,00,000 Equity Shares having face value of ₹ 1 each         | 10,00,000   |
| 10,00,000 8% Preference Shares having face value of ₹ 10 each | 1,00,00,000 |

During the year 2021-2022, the company had profit after tax of ₹ 90,00,000

On 1<sup>st</sup> January, 2022, NAT made a bonus issue of one equity share for every 2 equity shares outstanding as at 31<sup>st</sup> December, 2021.

On 1<sup>st</sup> January, 2022, NAT issued 2,00,000 equity shares of ₹ 1 each at their full market price of ₹ 7.60 per share. NAT's shares were trading at ₹ 8.05 per share on 31<sup>st</sup> March, 2022.

Further it has been provided that the basic earnings per share for the year ended 31<sup>st</sup> March, 2021 was previously reported at ₹ 62.30.

You are required to:

- Calculate the basic earnings per share to be reported in the financial statements of NAT for the year ended 31<sup>st</sup> March, 2022 including the comparative figure, in accordance with AS-20 Earnings Per Share.
- Explain why the bonus issue of shares and the shares issue at full market price are treated differently in the calculation of the basic earnings per share?

**Solution**

- Calculation of Basic Earnings per share for the year ended 31<sup>st</sup> March, 2022 including the comparative figure:

- Earnings for the year ended 31<sup>st</sup> March, 2021 = EPS x Number of shares outstanding during 2020-2021

$$= ₹ 62.30 \times 10,00,000 \text{ equity shares} = ₹ 6,23,00,000$$

- Adjusted Earnings per share after taking into consideration bonus issue

$$\text{Adjusted Basic EPS} = \frac{\text{Earnings for the year 2020-2021}}{\text{Total outstanding shares + Bonus issue}}$$

$$= ₹ 6,23,00,000 / (10,00,000 + 5,00,000)$$

$$= ₹ 6,23,00,000 / 15,00,000 = ₹ 41.53 \text{ per share}$$

(c) Basic EPS for the year 2021-2022

Basic EPS =  $\frac{\text{Total Earnings} - \text{Preference Shares Dividend}}{\text{Total shares outstanding at the beginning} + \text{Bonus issue} + \text{weighted average of the shares issued in January, 2022}}$

$$= \frac{₹ 90,00,000 - ₹ (1,00,00,000 \times 8\%)}{(10,00,000 + 5,00,000 + (2,00,000 \times 3/12))}$$

$$= ₹ 82,00,000 / 15,50,000 \text{ shares} = ₹ 5.29 \text{ per share}$$

- (ii) In case of a bonus issue, equity shares are issued to existing shareholders for no additional consideration. Therefore, the number of equity shares outstanding is increased without an increase in resources. Since the bonus issue is an issue without consideration, the issue is treated as if it had occurred prior to the beginning of the year 2021, the earliest period reported. However, the share issued at full market price does not carry any bonus element and usually results in a proportionate change in the resources available to the enterprise. Therefore, it is taken into consideration from the time it has been issued i.e. the time- weighting factor is considered based on the specific shares outstanding as a proportion of the total number of days in the period.

**Question 9** (ICAI Study Material)

Pg no. \_\_\_\_\_

|                                                                                                         |               |
|---------------------------------------------------------------------------------------------------------|---------------|
| Net profit for the current year                                                                         | ₹ 1,00,00,000 |
| No. of equity shares outstanding                                                                        | 50,00,000     |
| Basic earnings per share                                                                                | ₹ 2           |
| No. of 12% convertible debentures of ₹ 100 each.<br>Each debenture is convertible into 10 equity shares | 1,00,000      |
| Interest expense for the current year                                                                   | ₹ 12,00,000   |
| Tax relating to interest expense (30%)                                                                  | ₹ 3,60,000    |

Compute Diluted Earnings Per Share.

**Solution**

Adjusted net profit for the current year  $(1,00,00,000 + 12,00,000 - 3,60,000) = ₹ 1,08,40,000$

No. of equity shares resulting from conversion of debentures: 10,00,000 Shares

No. of equity shares used to compute diluted EPS:  $(50,00,000 + 10,00,000) = 60,00,000$  Shares

Diluted earnings per share:  $(1,08,40,000 / 60,00,000) = ₹ 1.81$

**Question 10** (RTP May 2018)

Pg no. \_\_\_\_\_

Mohur Ltd. has equity capital of ₹ 40,00,000 consisting of fully paid equity shares of ₹ 10 each. The net profit for the year 2019-2020 was ₹ 60,00,000. It has also issued 36,000, 10% convertible debentures of ₹ 50 each. Each debenture is convertible into five equity shares. The tax rate applicable is 30%. You are required to compute the amount of diluted earnings for the year 2019-2020.

**Solution**

Adjusted net profit for the current year  $(60,00,000 + 1,80,000 - 54,000) = ₹ 61,26,000$

No. of equity shares resulting from conversion of debentures:  $36,000 \times 5 = 1,80,000$  Shares

No. of equity shares used to compute diluted EPS:  $(4,00,000 + 1,80,000) = 5,80,000$  Shares

Diluted earnings per share:  $(61,26,000 / 5,80,000) = ₹ 10.56$

**Question 11** (Inter Nov 2018) (5 Marks)

Pg no. \_\_\_\_\_

From following information given by Sampark Ltd, Calculate Basis & Diluted EPS as per AS20

|                                  | ₹           |
|----------------------------------|-------------|
| Net Profit for the current year  | 2,50,00,000 |
| No. of Equity Shares Outstanding | 50,00,000   |

|                                                    |          |
|----------------------------------------------------|----------|
| No. of 12% convertible debentures of ₹ 100 each    | 50,000   |
| Each debenture is convertible into 8 Equity Shares |          |
| Interest expense for the current year              | 6,00,000 |
| Tax saving relating to interest expense (30%)      | 1,80,000 |

**Solution****Calculation of Basic Earnings Per Share**

$$\begin{aligned} \text{Basic EPS} &= \frac{\text{Net Profit for the current year}}{\text{No. of Equity Shares}} \\ &= \frac{2,50,00,000}{50,00,000} \\ \text{Basic EPS per share} &= ₹ 5 \end{aligned}$$

**Calculation of Diluted Earnings Per Share**

$$\text{Diluted EPS} = \frac{\text{Adjusted net profit for the current year}}{\text{Weighted average no. of Equity Shares}}$$

|                                             |             |
|---------------------------------------------|-------------|
| Adjusted net profit for the current year    | ₹           |
| Net profit for the current year             | 2,50,00,000 |
| Add: Interest expenses for the current year | 6,00,000    |
| Less: Tax saving relating to Tax Expenses   | (1,80,000)  |
|                                             | 2,54,20,000 |

No. of equity shares resulting from conversion of debentures: 4,00,000 Shares

Weighted average no. of equity shares used to compute diluted EPS: (50,00,000 + 4,00,000) = 54,00,000 Equity Shares

Diluted earnings per share: (2,54,20,000/54,00,000) = ₹ 4.71 (Approx.)

**Question 12 (RTP May 2019)**

Pg no. \_\_\_\_\_

“While calculating diluted EPS, effect is given to all dilutive potential equity shares that were outstanding during that period.” Explain this statement in the light of relevant AS.

Also calculate the diluted earnings per share from the following information:

|                                                                                                                                |              |
|--------------------------------------------------------------------------------------------------------------------------------|--------------|
| Net profit for the current year (after tax)                                                                                    | ₹1,00,00,000 |
| No. of equity shares outstanding                                                                                               | 10,00,000    |
| No. of 10% convertible debentures of ₹ 100 each.<br>(Each debenture is compulsorily & fully convertible into 10 equity shares) | 1,00,000     |
| Debenture interest expenses for the current year                                                                               | ₹ 5,00,000   |
| Assume applicable income tax rate @ 30%                                                                                        |              |

**Solution**

“In calculating diluted earnings per share, effect is given to all dilutive potential equity shares that were outstanding during the period.” As per AS 20 ‘Earnings per Share’, the net profit or loss for the period attributable to equity shareholders and the weighted average number of shares outstanding during the period should be adjusted for the effects of all dilutive potential equity shares for the purpose of calculation of diluted earnings per share.

$$\text{Computation of diluted earnings per share} = \frac{\text{Adjusted net profit for the current year}}{\text{Weighted average number of equity shares}}$$

|                                                            |             |
|------------------------------------------------------------|-------------|
| Net profit for the current year                            | 1,00,00,000 |
| Add: Interest expense for the current year                 | 5,00,000    |
| Less: Tax relating to interest expense (30% of ₹ 5,00,000) | (1,50,000)  |
| Adjusted net profit for the current year                   | 1,03,50,000 |

**Note:** Conversion of convertible debentures into Equity Share is a dilutive potential equity shares. Hence, to compute the adjusted profit the interest paid on such debentures will be added back as the same would not be payable in case these are converted into equity shares.

Weighted average number of equity shares

Number of equity shares resulting from conversion =  $(1,00,000 \times 100)/10 = 10,00,000$

Weighted average number of equity shares used to compute diluted earnings per share

=  $[(10,00,000 \times 12) + (10,00,000 \times 6)]/12 = 15,00,000$  shares

\*Interest on debentures for full year amounts to ₹ 10,00,000 (i.e. 10% of ₹ 1,00,00,000). However, interest expense amounting ₹ 5,00,000 has been given in the question. It may be concluded that debentures have been issued during the year and interest has been provided for 6 months.

Diluted earnings per share =  $\frac{1,03,50,000}{15,00,000 \text{ shares}} = ₹ 6.90 \text{ per share}$

**Question 13** (RTP May 2018/RTP Nov 2019 (Sim.)/RTP May 2020)/Nov 2022 (Similar) Pg no. \_\_\_\_\_

The following information relates to M/s. XYZ Limited for the year ended 31st March, 2020:

Net Profit for the year after tax: ₹ 75,00,000

Number of Equity Shares of ₹ 10 each outstanding: ₹ 10,00,000

Convertible Debentures Issued by the Company (at the beginning of the year)

| Particulars                              | No.      |
|------------------------------------------|----------|
| 8% Convertible Debentures of ₹ 100 each  | 1,00,000 |
| Equity Shares to be issued on conversion | 1,10,000 |

The Rate of Income Tax: 30%. Calculate Basic and Diluted Earnings Per Share (EPS).

**Solution**

Basic Earnings per share (EPS) =  $\frac{\text{Net profit attributable to equity shareholders}}{\text{Weighted average no. of equity shares o/s during year}}$   
 =  $\frac{75,00,000}{10,00,000 \text{ Shares}} = ₹ 7.5 \text{ per share}$

Computation of diluted earnings per share =  $\frac{\text{Adjusted net profit for the current year}}{\text{Weighted average number of equity shares}}$

|                                                            |            |
|------------------------------------------------------------|------------|
| Net profit for the current year                            | 75,00,000  |
| Add: Interest expense for the current year                 | 8,00,000   |
| Less: Tax relating to interest expense (30% of ₹ 8,00,000) | (2,40,000) |
| Adjusted net profit for the current year                   | 80,60,000  |

Number of equity shares resulting from conversion of deb. = 1,10,000 Equity shares (given)

Weighted average number of equity shares used to compute diluted earnings per share  
 = 11,10,000 shares (10,00,000 + 1,10,000)

Diluted earnings per share =  $\frac{80,60,000}{11,10,000 \text{ shares}} = ₹ 7.26 \text{ per share}$

**Question 14** (Inter Dec 2021) (5 Marks) Pg no. \_\_\_\_\_

"At the time calculating diluted earnings per share, effect is given to all dilutive potential equity shares that are outstanding during the period". Comment and also calculate the basic and diluted earnings per share for the year 2020-21 from the following information:

|                                                                                     |           |
|-------------------------------------------------------------------------------------|-----------|
| Net profit after tax for the year                                                   | 64,12,500 |
| No. of equity shares outstanding                                                    | 15,00,000 |
| No. of 9% convertible debentures of ₹ 100 each issued on 1 <sup>st</sup> July, 2020 | 75,000    |
| Each debenture is convertible into 8 equity shares                                  |           |
| Tax relating to interest expense                                                    | 35%       |

**Solution**

In calculating diluted earnings per share, effect is given to all dilutive potential equity shares that were outstanding during the period." As per AS 20 'Earnings per Share', the net profit or loss for the period attributable to equity shareholders and the weighted average number of shares outstanding\* during the period should be adjusted for the effects of all dilutive potential equity shares for the purpose of calculation of diluted earnings per share.

Basic EPS for the year 2020-21 =  $64,12,500 / 15,00,000 = ₹ 4.275$  or ₹ 4.28

Computation of diluted earnings per share =  $\frac{\text{Adjusted net profit for the current year}}{\text{Weighted average number of equity shares}}$

Adjusted net profit for the current year will be  $(64,12,500 + 5,06,250 - 1,77,188) = ₹ 67,41,562$

No. of equity shares resulting from conversion of debentures: 6,00,000 Shares  $(75,000 \times 8)$

Weighted average no. of equity shares used to compute diluted EPS:  $(15,00,000 \times 12/12 + 6,00,000 \times 9/12) = 19,50,000$  Shares

Diluted earnings per share:  $(67,41,562 / 19,50,000) = ₹ 3.46$

**Working Note:**

Interest expense for 9 months =  $75,00,000 \times 9\% \times 9/12 = ₹ 5,06,250$

Tax expense 35 % on interest is ₹1,77,188  $(5,06,250 \times 35\%)$

**Question 15 (Inter Nov 2022) (5 Marks)**

Pg no. \_\_\_\_\_

The following information is provided to you:

|                                                                            |                  |
|----------------------------------------------------------------------------|------------------|
| Net profit for the year 2022:                                              | ₹72,00,000       |
| Weighted average number of equity shares outstanding during the year 2022: | 30,00,000 shares |
| Average Fair value of one equity share during the year 2022:               | ₹ 25.00          |
| Weighted average number of shares under option during the year 2022:       | 6,00,000 shares  |
| Exercise price for shares under option during the year 2022:               | ₹ 20.00          |

You are required to compute Basic and Diluted Earnings Per Share as per AS 20.

**Solution:****Computation of Basic earnings per share**

|                                                    | Earnings  | Shares    | Earnings/Share |
|----------------------------------------------------|-----------|-----------|----------------|
| Net profit for the year 2022                       | 72,00,000 |           |                |
| Weighted average no. of shares during year 2022    |           | 30,00,000 |                |
| Basic earnings per share $(72,00,000 / 30,00,000)$ |           |           | 2.40           |

**Computation of Diluted earnings per share**

|                                                                                              | Earnings  | Shares     | Earnings/Share        |
|----------------------------------------------------------------------------------------------|-----------|------------|-----------------------|
| Net profit for the year 2022                                                                 | 72,00,000 |            |                       |
| Weighted average no. of shares during year 2022                                              |           | 30,00,000  |                       |
| Number of shares under option                                                                |           | 6,00,000   |                       |
| Number of shares that would have been issued at fair value $(6,00,000 \times 20.00) / 25.00$ |           | (4,80,000) |                       |
| Diluted earnings per share                                                                   | 72,00,000 | 31,20,000  | 2.31<br>(rounded-off) |

Note: The earnings have not been increased as the total number of shares has been increased only by the number of shares (1,20,000) deemed for the purpose of the computation to have been issued for no consideration. To the extent that partly paid shares are not entitled to participate in dividends during the reporting period they are considered the equivalent of options.

**Question 16**

Pg no. \_\_\_\_\_

For Accounting year 1-4-2019 to 31-3-2020

|                                                        |             |
|--------------------------------------------------------|-------------|
| Net profit attributable to equity shareholders         | 1,00,00,000 |
| No. of equity shares outstanding                       | 20,00,000   |
| Average fair value of one equity share during the year | 75          |

| Potential Equity Shares                  |                                                                                                                            |
|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Options                                  | 1,00,000 with exercise price of ₹ 60                                                                                       |
| Convertible Preference Shares            | 8,00,000 shares entitled to cumulative dividend of ₹8 per share. Each preference share is convertible into 2 equity shares |
| 12% Convertible Debentures of ₹ 100 each | Nominal amount ₹ 10,00,00,000. Each debenture is convertible into 4 equity shares.                                         |
| Tax rate                                 | 30%                                                                                                                        |

Calculate diluted earnings per share as per AS 20.

**Solution**

Incremental Earnings per share (IEPS) =  $\frac{\text{Increase in Earnings}}{\text{Increase in number of equity shares}}$

(1) Options

$$\text{IEPS} = \frac{\text{Nil}}{20,000 \text{ Shares}^*} = \text{Nil}$$

$$*1,00,000 \times (75 - 60) / 75 = 20,000$$

(2) Convertible Preference Shares

$$\text{IEPS} = \frac{(8 \times 8,00,000)}{(2 \times 8,00,000)} = \frac{64,00,000}{16,00,000} = 4$$

(3) Convertible Debentures

$$\begin{aligned} \text{IEPS} &= \frac{(10,00,00,000) \times 12\% \times (1 - 0.30)}{(4 \times 10,00,000)} \\ &= \frac{84,00,000}{40,00,000} = 2.10 \end{aligned}$$

It may be noted from the above that options are most dilutive as their earnings per incremental share is nil. Hence, for the purpose of computation of diluted earnings per share, options will be considered first. 12% convertible debentures being second most dilutive will be considered next and thereafter convertible preference shares will be considered.

**Conversion of Diluted Earnings Per Share**

|                               | Net Profit Attributable | No. of Equity Shares | Earnings per Share |               |
|-------------------------------|-------------------------|----------------------|--------------------|---------------|
| As reported                   | 1,00,00,000             | 20,00,000            | 5                  |               |
| Options                       | -                       | 20,000               |                    |               |
|                               | 1,00,00,000             | 20,20,000            | 4.95               | Dilutive      |
| 12% Convertible Debentures    | 84,00,000               | 40,00,000            |                    |               |
|                               | 1,84,00,000             | 60,20,000            | 3.06               | Dilutive      |
| Convertible Preference Shares | 64,00,000               | 16,00,000            |                    |               |
|                               | 2,48,00,000             | 76,20,000            | 3.25               | Anti Dilutive |

Since diluted earnings per share is increased when taking the convertible preference shares into account (from ₹ 3.06 to ₹ 3.25), the convertible preference shares are anti-dilutive and are ignored in the calculation of diluted earnings per share. Therefore, diluted earnings per share is ₹ 3.06.