



## AS 20

## EPS

**Question 1**

From the following information, you are required to compute Basic and Diluted Earnings Per Share (EPS) of M/s. XYZ Limited for the year ended 31st March, 2019:

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

Number of Equity Shares of Rs.10 each outstanding: Rs. 10,00,000

1,00,000, 8% Convertible Debentures of Rs. 100 each were issued by the Company at the beginning of the year. 1,10,000 Equity Shares were supposed to be issued on conversion. Consider rate of Income Tax as 30%. (MTP 5 Marks Oct'18, RTP May 20) (Same concept different figures- MTP 5 Marks Nov'21, RTP Nov'19, RTP May'19, RTP Nov'22, RTP May'18)

**Answer 1****Computation of basic earnings per share**

Net profit for the current year / Weighted average number of equity shares outstanding during the year Rs. 75,00,000 / 10,00,000 = Rs. 7.50 per share

**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	
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 Rs.8,00,000)	(2,40,000)
Adjusted net profit for the current year	<u>80,60,000</u>

**Number of equity shares resulting from conversion of debentures**

= 1,10,000 Equity shares (given in the Question)

**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**

= Rs. 80,60,000 / 11,10,000

= Rs. 7.26 per share

**Note:** Conversion of convertible debentures into Equity Share will be 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.





### Question 2

From the following information, you are required to compute the basic and adjusted Earnings per share:

Net profit for 2015-16	11 lakh
Net profit for 2016-17	15 lakh
No. of shares issued before rights issue	5 lakhs
Right issue	One for every 5 held
Right issue price	15 per share
Last date of exercising right option	1-06-2016
Fair value of shares before right issue	21 per share

From the following information, you are required to compute the basic and adjusted Earnings per share:

**(MTP 5 Marks- Mar'19, Mar'18) (Same concept different figures MTP 5 Marks May'20, MTP 5 Marks Sep'22, RTP Nov'20, RTP Nov'18, May'23, PYP 5 Marks Nov'19, Old & New SM)**

### Answer 2

#### Computation of theoretical ex-rights fair value per Share

$$\frac{\text{Fair value of all outstanding shares immediately prior to exercise of rights} + \text{Total amount received from exercise of rights}}{\text{Number of Shares outstanding prior to exercise} + \text{number of Shares issued in the exercise}}$$

$$\frac{(\text{Rs.}21.00 \times 5,00,000 \text{ Shares}) + (\text{Rs.}15.00 \times 1,00,000 \text{ Shares})}{5,00,000 \text{ Shares} + 1,00,000 \text{ Shares}}$$

Theoretical ex-rights fair value per share = Rs. 20.00

#### Computation of earnings per share

##### a) Computation of adjustment factor

$$\text{b) } \frac{\text{Fair value per share prior to exercise of rights}}{\text{Theoretical ex-rights value per share}} = \frac{21.00}{20.00} = 1.05$$

Computation of earnings per share	Year 2015-16	Year 2016-17
EPS for the year 2015-16 as originally reported: (Rs. 11,00,000/5,00,000 shares)	Rs.2.20	
EPS for the year 2015-16 restated for rights issue: [Rs. 11,00,000/ (5,00,000 shares x 1.05)]	Rs.2.10	
EPS for the year 2016-17 including effects of rights issue  $\frac{15,00,000}{(5,00,000 \times \frac{2}{12}) + (6,00,000 \times \frac{10}{12})}$		Rs. 2.55

### Question 3

Explain the concept of 'weighted average number of equity shares outstanding during the period'. Also compute, based on AS 20, the weighted average number of equity shares in the following case:

**(MTP 5 Marks April 21, April 22)**

		No. of shares
1st April, 2020	Balance of equity shares	7,20,000
31st August, 2020	Equity shares issued for cash	2,40,000
1st February, 2021	Equity shares bought back	1,20,000
31st March, 2021	Balance of equity shares	8,40,000



**Answer 3**

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 X 5/12	= 3,00,000 shares
9,60,000 X 5/12	= 4,00,000 shares
8,40,000 X 2/12	= <u>1,40,000 shares</u>
	= <u>8,40,000 shares</u>

**Question 4**

On 1st April, 2021 a company had 6,00,000 equity shares of Rs. 10 each (Rs. 5 paid up by all shareholders). On 1st September, 2019 the remaining Rs. 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, 2022 was Rs. 21,96,000 after considering dividend on preference shares and dividend distribution tax on such dividend totalling to Rs. 3,40,000. You are required to compute Basic EPS for the year ended 31st March, 2022 as per Accounting Standard 20 "Earnings Per Share".

**(MTP 5 Marks Mar'22, Oct '20 & Oct '21, March '23 & Oct '23, PYP 5 Marks, May '18, Old & New SM)**

**Answer 4**

$$\text{Basic Earnings per share (EPS)} = \frac{\text{Net Profit attributable to equity shareholders}}{\text{weighted average number of equity shares outstanding during the year}}$$

$$= \frac{21,96,000}{4,57,500 \text{ shares (as per working notes)}} = \text{Rs.4.80 per share}$$

**Working Note:**

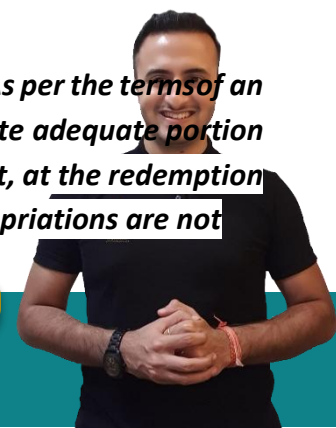
**Calculation of weighted average number of equity shares**

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
	Rs.	Rs.	Rs.
1.4.2020	6,00,000	5	6,00,000 x 5/10 x 5/12 = 1,25,000
1.9.2020	5,40,000	10	5,40,000 x 7/12 = 3,15,000
1.9.2020	60,000	5	60,000 x 5/10 x 7/12 = 17,500
Total weighted average equity shares			4,57,500

**Question 5**

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? (RTP Nov 21)*

**Answer 5**

*The appropriation made to such a mandatory reserve created for the 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 6**

*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:*

- 1. Equity Shares issued in exchange of cash,*
- 2. Equity Shares issued as a result of conversion of a debt instrument,*
- 3. Equity Shares issued in exchange for the settlement of a liability of the enterprise,*
- 4. Equity Shares issued for rendering of services to the enterprise,*
- 5. Equity Shares issued in lieu of interest and/or principal of another financial instrument; Equity Shares issued as consideration for the acquisition of an asset other than in cash. (RTP May '21) (New SM)*

**Answer 6**

*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:*

- 1. Date of Cash receivable*
- 2. Date of conversion*
- 3. Date on which settlement becomes effective*
- 4. When the services are rendered*
- 5. Date when interest ceases to accrue*
- 6. Date on which the acquisition is recognized.*

**Question 7**

*1. 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.*





2. X Limited, as at March 31, 2021, has income from continuing ordinary operations of Rs. 2,40,000, a loss from discontinuing operations of Rs. 3,60,000 and accordingly a net loss of Rs. 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? (RTP May 22)

#### Answer 7

1. 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.

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 others 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.

2. 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 from continuing ordinary operations"; As income from continuing ordinary operations, Rs. 2,40,000 would be considered and not Rs. (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 Rs. 240 to Rs. 200. Thus the basic E.P.S would be Rs. (120) and diluted E.P.S. would be Rs. (100)

#### Question 8

From the following information given by Sampark Ltd., Calculate Basis EPS and Diluted EPS as per AS-20:

	Rs.
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	
Each debenture is convertible into 8 Equity Shares	50,000
Interest expense for the current year	6,00,000
Tax saving relating to interest expense (30%)	1,80,000

(PYP 5 Marks Nov'18)

#### Answer 8

##### Calculation of Basic Earnings Per Share

$$\text{Basic EPS} = \frac{\text{Net Profit for the current year}}{\text{No. of Equity Shares}} = \frac{\text{Rs. } 2,50,00,000}{50,00,000}$$

Basic EPS per share = Rs. 5



### Calculation of Diluted Earnings Per Share

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

	Rs.
<b>Adjusted net profit for the current year</b>	
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	<u>(1,80,000)</u>
	<u>2,54,20,000</u>

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) = Rs. 4.71 (Approx.)

### Question 9

“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:

(i) Net profit after tax for the year	₹ 64,12,500
(ii) No. of equity shares outstanding	15,00,000
(iii) No. of 9% convertible debentures of ₹ 100 issued on 1 <sup>st</sup> July, 2020	75,000
(iv) Each debenture is convertible into 8 Equity Shares	
(v) Tax relating to interest expenses	35%

**(PYP 5 Marks Dec'21)**

### Answer 9

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

$$\text{Computation of diluted earnings per share for year 2020-21} = \frac{\text{Adjusted net profit for the current year}}{\text{Weighted average number of equity Shares}}$$

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 × 8)

Weighted average no. of equity shares used to compute diluted EPS:

$$(15,00,000 \times 12/12 + 6,00,000 \times 9/12) = 19,50,000 \text{ Shares}$$

Diluted earnings per share: (67,41,562/19,50,000) = ₹ 3;46

### Working Note:

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

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



\*Weighted average number of equities shares outstanding during the period is increased by the weighted average number of additional equity shares which would have been outstanding assuming the conversion of all dilutive potential equity shares.

**Question 10**

**NAT, a listed entity, as on 1st April,2021 had the following capital structure:**

	₹
<b>10,00,000 Equity Shares having face value of ₹ 1 each</b>	<b>10,00,000</b>
<b>10,00,000 8% Preference Shares having face value of ₹ 10 each</b>	<b>1,00,00,000</b>
<b>During the year 2021-2022, the company had profit after tax of</b>	<b>₹ 90,00,000</b>

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

**On 1st 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 31st March,2022.**

**Further it has been provided that the basic earnings per share for the year ended 31st 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 31st 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?**

**(PYP 5 Marks May'22)**

**Answer 10**

**1. Calculation of Basic Earnings per share for the year ended 31st March, 2022 including the comparative figure:**

Earnings for the year ended 31st March, 2021 = EPS x Number of shares outstanding during 2020 – 2021  
 = ₹ 62;30 x 10,00,000 equity shares = ₹ 6,23,00,000

a. Adjusted Earnings per share after taking into consideration bonus issue

Adjusted Basic EPS = Earnings for the year 2020–2021 / Total outstanding shares + Bonus issue  
 = ₹ 6,23,00,000 / (10,00,000+ 5,00,000)  
 = ₹ 6,23,00,000 / 15,00,000 = ₹ 41;53 per share

b. Basic EPS for the year 2021–2022

Basic EPS = Total Earnings – Preference Shares Dividend) / (Total shares outstanding at the beginning + Bonus issue + weighted average of the shares issued in January, 2022)  
 = (₹ 90,00,000 – ₹ (1,00,00,000 x 8%) / (10,00,000 + 5,00,000 + (2,00,000 x 3/12))  
 = ₹ 82,00,000 / 15,50,000 shares = ₹ 5;29 per share

2. 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 11

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.	(PYP 5 Marks Nov'22)

### Answer 11

#### 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 x 20.00)/25.00		(4,80,000)	
Diluted earnings per share	72,00,000	31,20,000	2.31 (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 12

Net Profit for FY 2021-22	30,00,000
Net Profit for FY 2022-23	50,00,000
No. of shares outstanding prior to rights issue	20,00,000 shares
Rights Issue Price	₹ 20
Last day to exercise rights	1st June, 2022
Right issue is one new share for each five equity share outstanding (i.e. 4,00,000 newshares)	





Fair value of one equity share immediately prior to exercise of rights on 1st June, 2022 was ₹ 26.00.  
Compute Basic Earnings Per Share for FY 2016-17, FY 2022-23 and restated EPS for FY 2021-22. (Nov '23)

**Answer 12**

**Computation of Basic Earnings Per Share (as per AS 20 Earnings Per Share)**

	Year 2016-17	Year 2017-18
	₹	₹
EPS for the year 2021-22 as originally reported		
<i>Net Profit of the year attributable to equity shareholders</i> <i>Weighted average number of equity shares outstanding during the Year</i>		
= (₹ 30,00,000 / 20,00,000 shares)	1.5	
EPS for the year 2021-22 restated for rights issue		
= [₹ 30,00,000 / (20,00,000 shares × 1.04 (W.N. 2))]	1.44	
EPS for the year 2022-23 including effects of rights issue	(approx.)	
$\frac{₹ 50,00,000}{(20,00,000 \text{ shares} \times 1.04 \times 2 / 12) + (24,00,000 \text{ shares} \times 10 / 12)}$		2.13
₹ 50,00,000 / 23,46,667 shares		(approx.)

**Working Notes:**

**Computation of theoretical ex-rights fair value per share**

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

$$\frac{(\text{₹ } 26 \times 20,00,000 \text{ Shares}) : (\text{₹ } 20 \times 4,00,000 \text{ Shares})}{20,00,000 \text{ shares} : 4,00,000 \text{ Shares}} = \frac{\text{₹ } 6,00,00,000}{24,00,000 \text{ Shares}} = 25$$

**Computation of adjustment factor**

$$\frac{\text{Fair value per share prior to exercise of rights}}{\text{Theoretical ex-rights value per share}} = \frac{25}{\text{₹ } 25 \text{ (Refer working Note 1)}} = 1.04 \text{ Approx.}$$

