

$$\text{EPS} = \frac{\text{Net Profit attributable to Equity SH}}{\text{Weighted Average Number of ES}} \rightarrow \text{Basic}$$

$$\textcircled{1} \text{ Net Profit attributable to ESH } = \begin{array}{l} \text{Profit Before Tax} \\ - (\text{Current Tax} \neq \text{Deferred Tax}) \text{ Tax Expense} \\ \text{Profit after Tax} \\ - \text{Preference Dividend} \\ \hline \text{NPAESH} \end{array}$$

Cumulative P.S.

Non-Cumulative P.S.

Preference Dividend will be deducted even if it is not provided by the company.

Preference Dividend will be deducted only if it is provided by the company.

② Weighted Average Number of Equity Shares :-

$$\begin{array}{lcl} \text{Equity share} & : & \text{Issued} \rightarrow \text{Kabse} : \text{Kabtak} \\ & & \underbrace{\hspace{10em}} \\ & & \text{"weight"} \\ & & \text{buyback} \rightarrow \text{Kab} : \text{year end} \end{array}$$

Example :-

Equity Shares balance on	1-4-20	=	10000 sh.
Fresh shares issued on	1-10-20	=	5000 sh
Shares bought back on	1-1-21	=	2500 sh.

Calculate the weighted average number of Equity Shares (WANES) on 31-3-21.

Solution :- Number of Equity shares = $10000 + 5000 - 2500 = 12500 \text{ sh.}$

$$\begin{aligned} \text{WANES} &= 10000 \times \frac{12}{12} + 5000 \times \frac{6}{12} - 2500 \times \frac{3}{12} \\ &= 10000 + 2500 - 625 \\ &= 11875 \text{ Equity Shares.} \end{aligned}$$

Why is there a need to calculate the weighted average number of Equity shares.

The numerator i.e. net profit AESH represents the profit over a period say for example 12 months.

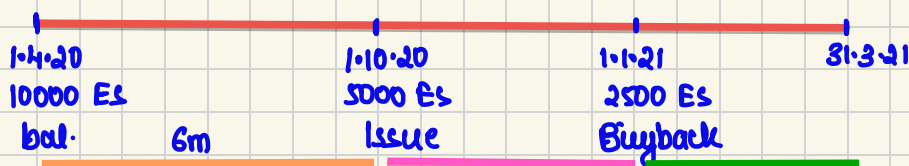
Whereas, the denominator i.e. "No of ES" represents a particular date. As a result the numerator and denominator are not comparable. To make them comparable we will have to calculate WANES which represents a period rather than a particular day.

Alternative method to calculate WANES :-

Grotcha

→ Balance
(Total method :- this is not an official name)

*Grotcha-cha"



$$= 10000 \times \frac{6}{12} + 15000 \times \frac{3}{12} + 12500 \times \frac{3}{12}$$

$$= 5000 + 3750 + 3125$$

$$= 11875$$

NPAESH :- ICAI SM PRESENTATION

A quick recap of adjustments to be made to the numerator will be as under:

Particulars	Adjusted in the numerator of Basic EPS
Tax expense (Current and Deferred Tax)	Yes
Exceptional items as per AS 5	Yes
Extraordinary items as per AS 5	Yes
Changes in Accounting estimates as per AS 5	Yes
Changes in Accounting Policy as per AS 5	Yes
Amount of preference dividends and any attributable tax thereto	
(a) Non-cumulative preference	Yes – only if it has been provided in the books
(b) Cumulative preference shares	Yes – irrespective, whether or not the dividends have been provided for in the books

Calculation of Period for WANES

In most cases, shares are included in the weighted average number of shares from the date the consideration is receivable, for example:

- Equity shares issued in exchange for cash are included when cash is receivable;
- Equity shares issued as a result of the conversion of a debt instrument to equity shares are included as of the date of conversion;
- Equity shares issued in lieu of interest or principal on other financial instruments are included as of the date interest ceases to accrue;
- Equity shares issued in exchange for the settlement of a liability of the enterprise are included as of the date the settlement becomes effective;
- Equity shares issued as consideration for the acquisition of an asset other than cash are included as of the date on which the acquisition is recognised; and
- Equity shares issued for the rendering of services to the enterprise are included as the services are rendered. → complete

In these and other cases, the timing of the inclusion of equity shares is determined by the specific terms and conditions attaching to their issue. Due consideration should be given to the substance of any contract associated with the issue.

→ Bank loan

Equity Sh.

→ kabse include

o.k. interest lagna jis din bond hojega.

→ JE date

Equity Shares with different Nominal Value

Calculation of Basic EPS

$$FV = 10 \text{ (A: FV=50)}$$

$$No. = 5000$$

$$\text{Total NV} = 50000$$

Assume:

$$\begin{aligned} FV &= 50 \\ No. &= 1000 \end{aligned}$$

$$= 11000 \text{ ES}$$

$$\text{EPS (FV=50)} = \frac{\text{NP/ES}}{\text{W/ANES}} = \frac{2000000}{11000 \times \frac{12}{12}} = 181.81 / \text{sh}$$

$$\text{EPS (FV=10)} = \frac{181.81}{5} = 36.36$$

$$FV = 50$$

$$No. = 10000$$

$$\begin{aligned} &50 \\ &10000 \end{aligned}$$

$$FV = 10$$

$$No. = 5000$$

Assume all shares of FV 10 each.

$$= 5000$$

$$\begin{aligned} No. &= 55000 \text{ sh} \\ (FV &= 10) \end{aligned}$$

$$\text{EPS (FV=10)} = \frac{2000000}{55000} = 36.36$$

$$\text{EPS (FV=50)} = 36.36 \times 5 = 181.81$$

$$FV = 50$$

$$No. = 10000$$

$$\text{Total FV} = 500000$$

$$FV = 10$$

$$No. = 50000$$

* = Equivalent Number of Shares

More than 1 class of Equity Shares

Example :-

$$\text{Net Profit} = 500000$$

Class A

Class B

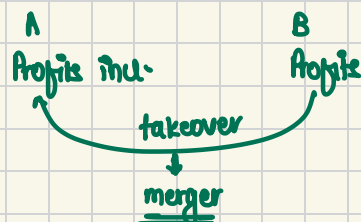
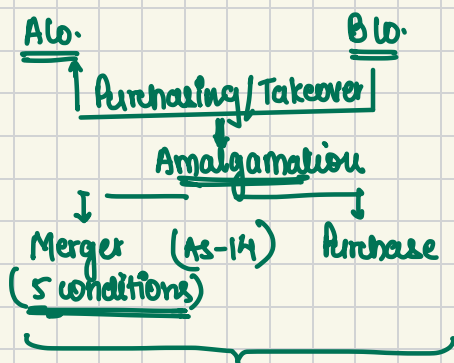
1. Dividend Rights
2. Proportionate NP

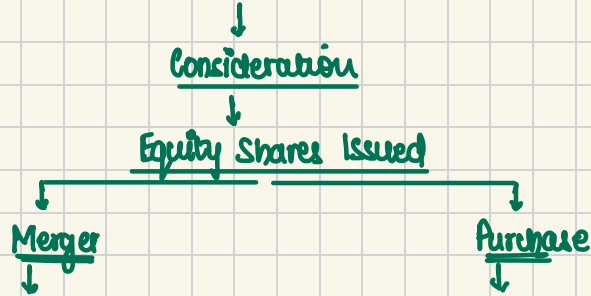
$$\begin{aligned} &1 \quad 1.5 \\ &200000 \quad 300000 \\ & (= 500000 \times 1/2.5) \quad (= 500000 \times 1.5/2.5) \end{aligned}$$

3. Weig. A. No. of ES
4. EPS

$$\begin{aligned} &5000 \quad 5000 \\ &40 \quad 60 \end{aligned}$$

Equity Share Issued During Amalgamation





WANES

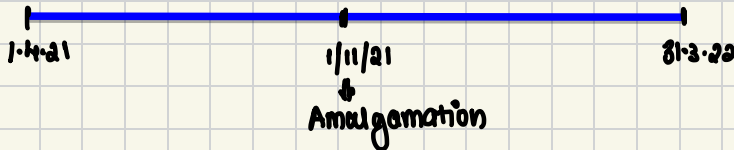
Period: Beginning of financial Year

Period = from the date of acquisition of the other company.

NPAESH

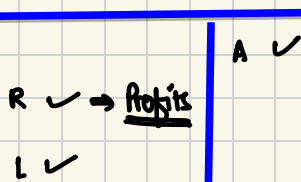
= Profits of A Co. before amalgamation
+
Profits of A Co. after amalgamation
+
Profits of B Co. before amalgamation

= Profits of A Co. before amalgamation
+
Profits of A Co. after amalgamation



A Ltd.	✓		✓	
B Ltd.	✓		x	

A Ltd. purchased / takeover B Ltd.



Example :-

Calculation of EPS

(81.3.22)

Amalgamation in the nature of Purchase ✓

(B Co. → Net Profits → not included
WA → ES issued → period →
from the DOA)

$$= \frac{\text{NP AESH}}{\text{W A N E S}}$$

$$= \frac{500000 + 800000}{10000 \times \frac{12}{12} + 5000 \times \frac{6}{12}}$$

$$= \frac{1300000}{10000 + 2500}$$

$$= 104$$

Amalgamation in the nature of merger

(B Co. → Net Profit → included
WA → ES issued → period →
from the beginning of FY)

$$= \frac{\text{NP AESH}}{\text{W A N E S}}$$

$$= \frac{500000 + 800000 + 400000}{10000 \times \frac{12}{12} + 5000 \times \frac{12}{12}}$$

$$= 113.33$$

$$\text{EPS} = \frac{\text{NP AESH}}{\text{W A N E S}} = \frac{1000000}{5000 \times \frac{12}{12} + 5000 \times 0.6 \times \frac{12}{12}} \rightarrow \underline{\underline{\text{weight}}}$$

$$= 125$$

fraction of
fully paid ES.
fraction : Dividend rights as compared
to fully paid ES

- 1) MV = 150
- 2) ES issued = 100000
- 3) Right shares issued = 20000
- 4) Right Issue Price = 120
- 5) Date of Right Issue = 30/6/20 (FY: 20-21)

6) NP = 2000000

Calculate EPS.

$$\textcircled{1} \text{ Fair Value per sh. after RI} = \frac{(100000 \times 150) + (20000 \times 120)}{120000}$$

$$= 145$$

$\textcircled{2}$ Bonus (free) Element in RI (Shares Issued for free)

$$\text{Total amount raised from RI} = 20000 \times 120 = \frac{2400000}{145}$$

$$= 16552 \text{ ES issued}$$

$$\text{Actual shares issued} = 20000$$

$$\text{Shares Issued for free (Bonus Shares)} = \frac{20000}{16552} \times 16552 = 3448 \text{ ES}$$

$$\textcircled{3} \text{ EPS} = \frac{\text{NP/RES}}{\text{W/RES}}$$

$$= \frac{2000000}{\frac{100000 \times 12}{12} + 16552 \times \frac{9}{12} + 3448 \times \frac{12}{12}}$$

$$= \frac{2000000}{100000 + 12414 + 3448}$$

$$= \frac{2000000}{115862}$$

$$= 17.26$$

13. 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

$$\begin{array}{r} 2 \\ \times \\ 5 \\ \hline = 100,000 \end{array}$$

Last date of exercising rights - 30-06-20X2.

Fair value of one equity share immediately prior to exercise of right on 30-06-20X2 is ₹ 102.

Net Profit to equity shareholders:

20X1-20X2 - ₹ 50,00,000

20X2-20X3 - ₹ 75,00,000

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

$$FV = \frac{250000 \times 102 + 100000 \times 98}{350000}$$

$$= 100.85$$

$$\text{Bonus Element} = \frac{980000}{100.85}$$

$$= 97174 \text{ sh.}$$

$$= \frac{100000 \text{ sh}}{1.02826}$$

$$\text{Bonus} = 2826$$

$$\text{EPS} = \frac{7500000}{\frac{250000 \times 12}{12} + \frac{97174 \times 9}{12} + \frac{2826 \times 12}{12}}$$

$$= \frac{7500000}{250000 + 72880 + 2826}$$

$$= \frac{7500000}{325706}$$

$$= 23.02$$

Question 7:- Basic EPS for 16-17 = $\frac{\text{NP AESH}}{\text{W A N E S}} = \frac{2200000}{1000000}$

= 2.2

Basic EPS for 17-18 = $\frac{\text{NP AESH}}{\text{W A N E S}} = \frac{3000000}{\frac{1000000 \times 12}{12} + \frac{162180 \times 8}{12} + \frac{37820 \times 12}{12}}$

= $\frac{3000000}{1000000 + 108120 + 37820} = 2.60$

1) Calculation of fair Value /share after Right Issue

= $\frac{(1000000 \times 32) + (200000 \times 25)}{1200000}$

= 30.83

2) Calculation of Bonus Shares Issued

- | | | |
|--|--------------------|---------------------|
| a) Total amount raised through Right Issue : | 200000×25 | = 50,00,000 |
| b) fair Value /sh. after right issue | | = 30.83 |
| c) No. of shares to be issued | | = 162180 E.S. |
| d) No. of shares actually issued | | = 200000 E.S. |
| e) Bonus shares issued | | = <u>37820</u> E.S. |

Calculation of Restated basic EPS f.t.y. 16-17

16-17 = $\frac{2200000}{\frac{1000000 \times 12}{12} + \frac{37820 \times 12}{12}}$

= 2.12

P/E : $\frac{\text{MP}}{\text{EPS}} = \frac{20}{2.12} = \underline{9.43} \rightarrow \underline{\text{premium}}$

1 ₹ earn
9.43 invest

Illustration 4

Net profit for the year 20X1 ₹ 11,00,000

Net profit for the year 20X2 ₹ 15,00,000

No. of shares outstanding prior to rights issue 5,00,000 shares

Rights issue price ₹ 15.00

Last date to exercise rights 1st March 20X2

Rights issue is one new share for each five outstanding (i.e. 1,00,000 new shares)

Fair value of one equity share immediately prior to exercise of rights on 1st March 20X2 was ₹ 21.00. Compute Basic Earnings Per Share.

$$\text{EPS for 2021} = \frac{1100000}{500000}$$

$$= 2.2$$

$$\begin{aligned} \text{EPS for 2022} &= \frac{1500000}{\frac{500000 \times \frac{12}{12} + \underbrace{75000 \times \frac{10}{12}}_{\text{RI}} + \underbrace{25000 \times \frac{12}{12}}_{\text{BI}}} \\ &= 2.55 \end{aligned}$$

i) Calculation of fair value after Right Issue :-

$$\begin{aligned} &= \frac{(500000 \times 21) + (100000 \times 15)}{600000} \\ &= 20 \end{aligned}$$

2) Bonus Shares Issued:

- a) Total amount raised :- $100000 \times 15 = 1500000$
- b) fair value after RI = 20
- c) Number of shares to be issued = 75000
- d) Actual shares issued = 100000
- e) Bonus shares issued = 25000

Restated EPS for 2021

$$\begin{aligned} \text{EPS} &= \frac{1100000}{500000 + 25000} \\ &= 2.10 \text{ (2.095)} \end{aligned}$$

Question 11 :- ICM SM

PRESENTATION & DISCLOSURES BASED ACCOUNTING STANDARDS

4.123

Date	No. of equity shares	Amount paid per share	Weighted average no. of equity shares
	₹	₹	₹
1.4.20X1	6,00,000	5	$6,00,000 \times \frac{5}{10} \times \frac{5}{12} = 1,25,000$
1.9.20X1	5,40,000	10	$\frac{10}{10} \times 5,40,000 \times \frac{7}{12} = 3,15,000$
1.9.20X1	60,000	5	$\frac{60,000}{10} \times \frac{5}{10} \times \frac{7}{12} = 17,500$
Total weighted average equity shares			4,57,500

12. Earnings for the year:

= No. of Shares x Basic EPS

= 30,00,000 shares x ₹ 5 per share = ₹ 1,50,00,000

Computation of Adjusted Net Profit:

= Earnings for the year : Interest on debentures net of tax

When nothing is mentioned in the question regarding dividends, then assume partly paid shares are entitled to dividends only to extent of paidup amount as compared to fully paid

↓

Based on the above partly paid shares will be considered as a fraction of fully paid shares.

$$\text{EPS} = \frac{2196000}{457500} = \underline{\underline{4.80/\text{sh.}}}$$

$$600000 \times \frac{5}{10} \times \frac{12}{12} = 300000$$

$$540000 \times \frac{5}{10} \times \frac{7}{12} = 157500$$

$$\underline{\underline{457500}}$$

$$\begin{array}{l} \text{600000} \\ \begin{array}{l} \frac{5}{10} \\ (1.4) \end{array} \\ + \frac{540000 \times \frac{5}{10} \times \frac{12}{12}}{60000 \times \frac{5}{10} \times \frac{12}{12}} \end{array} \quad \begin{array}{l} \frac{5}{10} \\ (1.9) \\ + \frac{540000 \times \frac{5}{10} \times \frac{7}{12}}{x} \end{array}$$

Question 8:

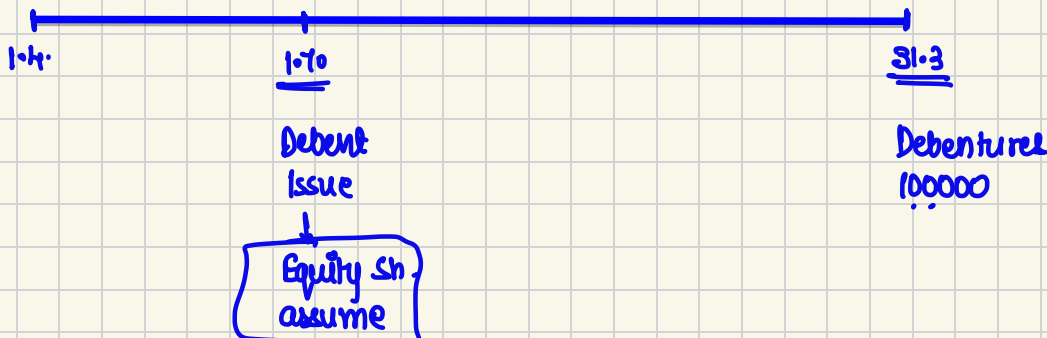
$$\begin{aligned}\text{Basic EPS} &= \frac{\text{NPAT}}{\text{W.A.S.}} = \frac{8550000}{2000000 \times \frac{12}{12}} \\ &= 4.275\end{aligned}$$

$$\begin{aligned}\text{Diluted EPS} &= \frac{8550000 + \text{Interest} (1 - \text{tax rate})}{2000000 \times \frac{12}{12} + 1000000 \times \frac{x}{12}} \\ &= \frac{8550000 + 600000 (1 - 0.30)}{2000000 + 1000000 \times \frac{9}{12}} \\ &= \frac{8550000 + 420000}{2750000} \\ &= 3.26\end{aligned}$$

⇒ Interest when paid provides tax benefit (reduction in tax). Hence, if the same is not paid it will lead to increase in tax. Therefore, only the net amount of interest after deducting incremental tax is added back.

$$\begin{aligned}\text{Annual Interest} &= 10000000 \times 8\% = 800000 \xrightarrow{12m} \\ &\quad 600000 \xrightarrow{x = 9m}\end{aligned}$$

$$\begin{aligned}\text{NP} &= 8550000 \\ + \text{Interest} &= 600000 \\ \text{Adj NP} &= 9150000 \\ \text{Tax } 30\% &\rightarrow \begin{array}{r} 8550000 \\ \times 30\% \\ \hline 2565000 \end{array} \quad \begin{array}{r} 600000 \\ \times 30\% \\ \hline 180000 \\ \hline 420000 \end{array}\end{aligned}$$



Example :- Convertible P.S.

Net Profit = 85,50,000

No. of ES = 20,00,000

7% Convertible P.S. = 1,00,000 shares (FV=100)

Each preference share is convertible into 10 E.S.

Calculate diluted EPS.

Solution :-

$$\text{Basic EPS} = \frac{85,50,000}{20,00,000}$$
$$= 4.275$$

$$\text{Diluted EPS} = \frac{85,00,000 + \text{PD (7,00,000)}}{20,00,000 + \frac{1,00,000 \times 12}{12}}$$
$$= 3.083$$

→ Pref Div when paid does not provide any tax benefit. Hence when it will not be paid it will not lead to any additional tax. Therefore, entire amt of P.D. is added back.

Ref. Sh.
Issued
↓
Equity Sh.
Issued
assume

$$\begin{array}{r} \text{NPBT} \\ - \text{Tax} \\ \hline \text{NPAT} \\ - \text{PD} \\ \hline \text{NPATSH} \end{array}$$

$$\begin{array}{r} \text{Gross Profit} \\ - \text{all indirect exp} \\ - \text{Interest} \\ \hline \text{NPBT} \\ - \text{Tax exp (30\%)} \\ \hline \text{NPAT} \\ - \text{PD} \end{array}$$

$$\begin{array}{r} 1000 \\ 0 \\ 100 \rightarrow \text{Tax benefit} \\ \hline 900 \\ (270) \\ \hline 630 \\ \hline \rightarrow \text{No tax benefit} \end{array}$$

Illustration 6

Net profit for the year 20X1	₹ 12,00,000
Weighted average number of equity shares outstanding during the year 20X1	5,00,000 shares
Average fair value of one equity share during the year 20X1	₹ 20.00
Weighted average number of shares under option during the year 20X1	1,00,000 shares
Exercise price for shares under option during the year 20X1	₹ 15.00

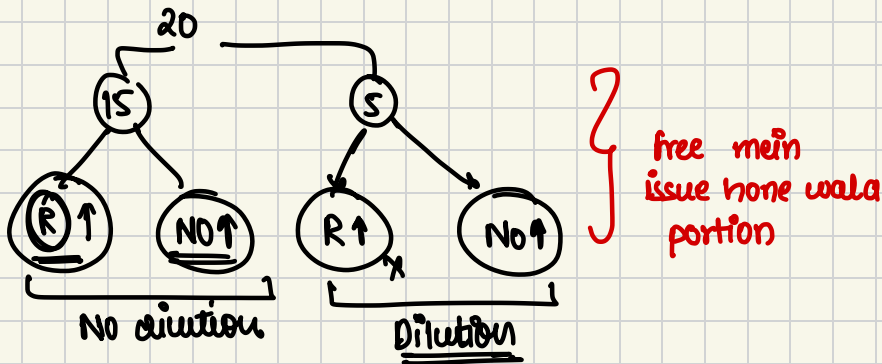
Compute Basic and Diluted Earnings Per Share.

$$\text{Basic EPS} = \frac{12,00,000}{5,00,000} = 2.4$$

Diluted EPS : Options :

- a) Total amount to be raised : $100000 \times 15 = 1500000$
- b) fair Value 1sh = 20
- c) Number of shares to be issued = 75000
- d) Actual shares issued = 100000
- e) Shares issued for no considered = 25000

$$\begin{aligned}\text{Diluted EPS} &= \frac{1200000 + 0}{500000 \times \frac{12}{12} + 25000 \times \frac{12}{12}} \\ &= 2.29\end{aligned}$$



Next Test
3rd November :

AS- 17, 18, 20 Financial Statements

Question 9:- Calculation of Incremental Earning / Share

1. Options :-
- | | | |
|----------------------------------|--------------------|-----------------------|
| a) Total amount to be raised :- | 100000×60 | $= 6000000$ |
| b) fair Value / option | | $= 75$ |
| c) No. of shares to be issued | | $= 80000$ |
| d) No. of shares actually issued | | $= 100000$ |
| e) Excess shares issued | | $= \underline{20000}$ |

$$\text{Incremental Earnings} = \frac{0}{20000} = 0$$

2. Preference Shares :

$$\begin{aligned}\text{Incremental Earnings} &= \frac{(800000 \times 8) + 640000}{1600000} \\ &= 4.4\end{aligned}$$

$$\begin{aligned}D &= 100 \rightarrow 64L \\ \text{CDT} &= \frac{10}{110} \rightarrow \frac{x}{70-40L} \\ &= \frac{10}{110} \rightarrow \frac{x}{30L}\end{aligned}$$

3. Debentures :-

$$\begin{aligned}\text{Incremental Earnings} &= \frac{12000000 \times 0.70}{4000000} \\ &= 2.1\end{aligned}$$

Rankings on the basis of maximum dilution

1. Option - Rank 1
2. Debentures - Rank 2
3. Preference Sh. - Rank 3

Calculation of Diluted EPS

Considering Options

$$\begin{aligned}&= \frac{10000000}{2000000 \times \frac{12}{12} + 20000 \times \frac{12}{12}} + 0 \\ &= 4.95\end{aligned}$$

Options have diluted the EPS.

Considering Debentures

$$= \frac{10000000}{2000000 \times \frac{12}{12} + 20000 \times \frac{12}{12} + 4000000 \times \frac{12}{12}} + 0 + \frac{8400000}{4000000 \times \frac{12}{12}}$$

= 3.056

Debentures have diluted the EPS

Considering Preference Shares

$$= \frac{10000000 + 0 + 8400000 + 7040000}{\frac{2000000 \times 12}{12} + \frac{20000 \times 12}{12} + \frac{4000000 \times 12}{12} + \frac{1600000 \times 12}{12}}$$

$$= \frac{25440000}{7620000}$$

= 3.34

Preference shares are anti dilutive.

Hence, the diluted EPS = 3.056

In simple words, we can conclude as under:

Particulars	Remarks	Is it to be taken as a part of Diluted EPS or not?
Conversion to equity shares would decrease earnings per share from continuing ordinary activities.	Dilutive	Yes
Conversion to equity shares would increase earnings per share from continuing ordinary activities.	Anti-dilutive	No
Conversion to equity shares would increase loss per share from continuing ordinary activities.	Dilutive	Yes
Conversion to equity shares would decrease loss per share from continuing ordinary activities.	Anti-dilutive	No

Illustration 7

X Limited, during the year ended March 31, 20X1, 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, 20X1.

You are required to compute Basic and Diluted EPS?

$$\text{Basic EPS} = \frac{(120000)}{1000} = (120)$$

Diluted EPS

Whether potential equity shares are diluted or not

considering only continuing operations

$$\text{Basic EPS} = \frac{240000}{1000} = 240$$

$$\text{Diluted EPS} = \frac{240000}{1000 + 200} = 200$$

} The EPS has decreased.

→ While testing consider only continuing operations.

The potential equity shares are dilutive

Presentation of Diluted EPS

$$= \frac{240000 - 360000}{1000 + 200}$$

$$= (100)$$

} While presentation consider continuing and discontinuing operations both.



5.10 RESTATEMENT

If the number of equity or potential equity shares outstanding increases as a result of a bonus issue or share split or decreases as a result of a reverse share split (consolidation of shares), the calculation of basic and diluted earnings per share should be adjusted for all the periods presented. If these changes occur after the balance sheet date but before the date on which the financial statements are approved by the board of directors, the per share calculations for those financial statements and any prior period financial statements presented should be based on the new number of shares. When per share calculations reflect such changes in the number of shares, that fact should be disclosed.

Diluted EPS

Options → Dilutive in nature

$$= \frac{10000000 + 0}{2000000 + 20000}$$

$$= 4.95 \checkmark$$

Debentures → Dilutive in nature

$$= \frac{10000000 + 0 + 8400000}{2000000 + 20000 + 4000000}$$

$$= 3.056 \checkmark$$

Preference Shares

$$= \frac{10000000 + 0 + 8400000 + 7040000}{2000000 + 20000 + 4000000 + 1600000}$$

$$= \frac{25440000}{7620000}$$

$$= 3.34 \leftarrow \text{increase}$$

Preference Shares are anti dilutive.

Diluted EPS = 3.056