

IND AS 19 - EMPLOYEE BENEFITS

1) Short term Employee Benefits {Salaries, wages, Bonus, Paid sick leave}

Eg.

Suppose Employee worked from 1st October 2001 - 20th January 2002.

Financial Year → April to March {1.4.01 - 31.3.02}

∴ Reporting period end → 31.3.2002

If Amount Expected to be settled on or before 31.3.03 → S.T.E.B.

" " " " " " After 31.3.03 → L.T.E.B (P.V. Concept)

Eg. Tagati Industries Ltd.

No. of working days = 320 days

Leaves Allowed = $\frac{30 \text{ days}}{290 \text{ days}}$

For 290 Days worked

£ 96000

TO Payable / TO Bank 96000

FY 2001-02

Salary p.a. = 96000 p.a. { Per Day Salary = $\frac{96000}{320} = ₹ 3000 \text{ per Day}$ }

If Employee worked for 290 Days, Amt Payable = ₹ 96000

" " " " 300 " , " " = ₹ 96000 {10 Days Extra}
(290 + 10)

If leaves Non Accumulating, No Benefits Payable for 10 days extra work.

If leaves Accumulating in nature

For Vested options

{Cash paid for extra 10 days worked}

E.B.E. 3000

TO Bank / Payable 3000

{3000 × 10}

For Non Vested options

{leaves for leave}

E.B.E. 1000

TO Provision 1000

{assumed Employee will utilise only 6 days of leave in next year}

Non vesting → Sonali (An Employee)

	<u>2001</u>	<u>2002</u>
Working Days	320	320
Leave Allowed	(30)	(30)
	<u>290 Days</u>	<u>290 Days</u>
Days worked	282 Days	282 Days
Leave CF	8 Days	—
Salary Paid	960000	960000

ERE (P/L) 960000 → 290 Days equivalent to 320 Days
 To Payable Bank 960000

ERE (P/L) 2400 → 8 Days Provision
 To Provision 2400

ERE 936000

Provision 2400

To Payable 960000

$\left\langle \frac{960000}{320 \text{ Days}} \times 8 \text{ Days} \right\rangle$

Suppose in same Question above, Entity estimates that employee will utilise only 5 Days of leave but during next year end employee actually utilise 7 Days of leave.

Current year

ERE 960000

To Payable 960000

ERE 15000

To Provision 15000

$\left\langle 3000 \times 5 \text{ Days} \right\rangle$

Next year

ERE 945000

Provision 15000

To Payable 960000

E.g. No. of working Days = 320 Days.
 leaves Allowed = 30 Days
 Days worked = 307 Days (max leave C/F = 10 Days)
 Salary P.L. = 960000 (Per Day Salary = $\frac{960000}{320} = ₹ 3000$)
 Expected salary increase = 10% (3000 + 10% = 3300)
 Entity expects that employee will utilise 4 Days of leave.
 $\therefore$ Provision = 3300 x 4 Days = 29700

leaves can be C/F only from one year.

Journal

EBE	960000
To Payables/Bank	960000
EBE	29700
To Provision	29700

Next year

Case 1 - Salary actually increased by 15%, No. of days worked = 276 Days
 $\therefore$ Payments = Full salary less 4 Days. (3450 x (320 - 4) days)

Journal

EBE	1060500
Provision	29700
To Bank (276 + 30 + 10)	1090200

Case 2

Salary actually increased by 15%. No. of Days worked = 299 Days

Expected next year salary increase = 18%

Current Salary = 3000 + 15% = 3450

Expected next year salary = 3450 + 18% = 4071

Payments to be made Current year = Full salary (prev C/F leave utilised and lapsed)
 = 3450 x 320 Days = 1104000

Provision from next year if

$$\text{Provision} = 3300 \times 9 \text{ days} = 29700 \rightarrow \text{E.B.E} \quad \begin{array}{r} 29700 \\ \text{TO Provision} \quad 29700 \end{array}$$

Next year

CASE 1

Salary actually increased by 15%

No. of days worked = 276 days

Current year salary = $3000 + 15\% = 3450$

Leave utilised = 10 days Full.

Salary to be paid = $(276 + 10) = 286 \text{ days}$

Journal

E.B.E (B.B.E) 1060500

Provision 29700

TO Bank/Payable 1090200

$\uparrow 276 + 30 + 10 \uparrow \text{days}$

CASE 2

Salary actually increased by 15%

No. of days worked = 299 days
 $\downarrow$
 9 days Extra

Expected next year Salary Increase = 16%.

Current year salary = $3000 + 15\% = 3450$

Leave utilised = No utilisation

if 2 years salary backward allowed.

Entity expects that apart from previous 9 days C/F, another 6 days will be utilised

(Total = 15 days) $\left\{ \begin{array}{l} \text{Total Expected leave to} \\ \text{be utilised} = 15 \text{ Days} \end{array} \right\}$

Expected salary next year = 4002

$\downarrow$
 $3000 + 15\% + 16\%$

Provision

$$(4002 \times 15) - 29700 = 22326$$

E.g. No. of Working Days = 320
 Leaves Allowed = 30
 Salary = 960000
 No. of days worked = 315 Days (25 days Extra worked)
 Leaves left allowed = 18 Days
 Expected Salary Increase = 15%. (Next yr salary = 3000 + 15% = 3450)
 Entity expects that Employee will utilize 16 days of leave

EBE	1015200		Statement of P/L	
TO Payables	960000	290 Days	EBE (290 + 16)	1015200
TO Provision	55200	16 Days	Balance	
(3450 x 16 Days)			Payables	960000
			Short term Provision	55200

Next year,

Salary actually increased by 10%.

Revised Salary (3000 + 10%) = 3300

No. of days worked = 275 Days (Leave utilized 15 Days)

EBE	1000800
Provision	55200
TO Payables (96000 + 10%)	1056000

Illustration 3: Non-Vested Accumulating Benefits

Assume same information as in Illustration 2.

Based on past experience, Infotech Ltd. assumes that Mr. Niranjana will avail the unutilized leaves of 2 days of 20X0-20X1 subsequently.

However, in 20X1-20X2, Mr. Niranjana availed in actual all 3 days of brought forward leave. Compute the expense to be recognised in 20X0-20X1 and 20X1- 20X2. Also pass journal entries for both the years.

EBE (290 + 10 + 2) Dr 3020000

TO Bank 3000000

TO Provision 20000

EBE 2980000

Provision 20000

TO Bank 3000000

01-02

30 days leave allowed

20 days leave taken

10 days leave CF

↓
Lapse

02-02

30 days leave allowed

(25 days leave taken)

5 days leave CF

OR

30 days leave allowed

38 days leave taken

- 8 days utilised

out of 10 days

Rem 2 days lapse

Illustration 6 Double Imp. FIFO Basis (NO LIFO Basis)

Acer Ltd. has 350 employees (same as a year ago). The average staff attrition rates observed during past 10 -years represents 6% per annum. Acer Ltd. provides the following benefits to all its employees:

329 Emp (old staff) + 21 Emp (New staff)

Paid vacation - 10 days per year regardless of date of hiring. Compensation for paid vacation is 100% of employee's salary and unused vacation can be carried forward for 1 year. As of 31st March, 20X1, unused vacation carried forward was 3 days per employee, average salary was ₹ 15,000 per day and accrued expense for unused vacation in 20X0-20X1 was ₹ 65,00,000. During 20X1- 20X2, employees took 9 days of vacation in average. Salary increases in 20X1-20X2 was 10%.

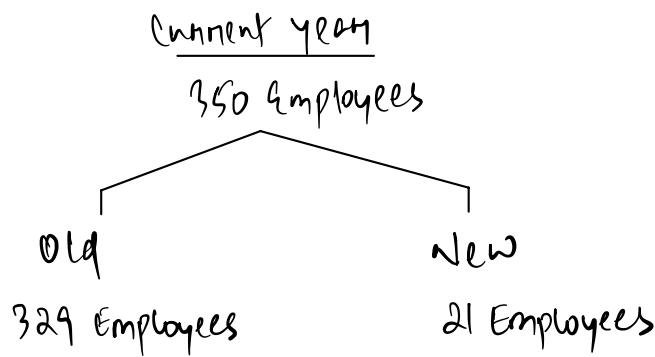
16500

6 days

15000 + 10% = 16500

How would Acer Ltd. recognize liabilities and expenses for these benefits as of 31st March, 20X2? Pass the journal entry to show the accounting treatment.

Previous Year
350 Employees



Old 329 Emp.

P.Y.
31.3.01
↓
3 leave unutilised

C.Y. (01-02)
31.3.02
10 days leave allowed
(-) 3 P.Y. leave utilised
(-) 6 C.Y. leave utilised
4 days leave C/F

New 21 Emp.

P.Y.
NO History

C.Y. (01-02)
10 days leave allowed
(9 days leave utilised)
1 day C/F

Total Emp. Days = 329 X 4 Days = 1316 days Total Emp. Days = 21 X 1 = 21 Days

∴ Total man days = (1316 + 21) = 1337 man days.

∴ Provision = 1337 days X 16500 = 22060500

Expm Entry

E.B.E.	22060500
TO Provision for leave	22060500

Provision for leave	6500000
TO Bank	6500000

~~Previous Year Prov. to be reversed~~

~~Provision 6500000~~
~~TO E.B.E. 6500000~~

~~↓~~
~~But ICAI Ans (Ratta)~~

~~Provision 6500000~~
~~TO Bank 6500000~~

Illustration 15

AJ Ltd is engaged in the business of trading of chemicals having a net worth of ₹ 150 crores. The company's profitability is good and hence the company has introduced various benefits for its employees to keep them motivated and to ensure that they stay with the organization. The company is an associate of RJ Ltd which is listed on Bombay Stock Exchange in India.

The company initially did not have any HR function but over the last 2 years, the management set up that function and now HR department takes care of all the benefits related to the employees and how they can be structured in a manner beneficial to both the employees and the objectives of the company.

One of the employee benefits involves a lump sum payment to employee on termination of service and that is equal to 1 percent of final salary for each year of service. Consider the salary in year 1 is ₹ 10,000 and is assumed to increase at 7 per cent (compound) each year.

Taking a discount rate at 10 per cent per year, you are required to show

+ 7%

- benefits attributed (year on year) and
- the obligation in respect of this benefit (year on year)

For an employee who is expected to leave at the end of year 5 Following assumptions may be taken to solve this:

- There are no changes in actuarial assumptions.
- No additional adjustments are needed to reflect the probability that the employee may leave the entity at an earlier or later date.

$$\text{Expected last drawn salary} = 10000 + 7\% + 7\% + 7\% + 7\% \\ = 13107 \text{ (5th year end)}$$

$$\therefore \text{Lump Sum Payment} = 13107 \times 1\% \times 5 \text{ years} \\ = 655 \text{ (Payment at 5th year end)}$$

	0th year	1st	2nd	3rd	4th	5th
Benefits Attributed Each year		~~131~~	~~131~~	~~131~~	~~131~~	131
C.C.O. (P.Y.)		89	98	108	119	131
		$\frac{131}{(1.10)^1}$	$\frac{131}{(1.10)^2}$	$\frac{131}{(1.10)^3}$	$\frac{131}{(1.10)^4}$	$\frac{131}{1}$

	1st	2nd	3rd	4th	5th	Total
Table						
Current Service Cost	89	98	108	119	131	545
Interest Cost	-	9	20	32	48	110
	89	107	128	151	180	655

b) Computation of the obligation for an employee who is expected to leave at the end of year 5
(taking discount rate of 10% p.a.)

Amount in ₹

Year	1	2	3	4	5
Opening obligation (A)	-	89	196	324	475
Interest at 10% (B = A X 10%)	-	9	20	32	47
Current service cost (C) (Refer WN 2)	89	98	108	119	131
Closing obligation D = (A+B+C)	89	196	324	475	653

Figures have been rounded off in the above table.

(A) Benefits Attributed

	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>4th</u>	<u>5th</u>
Prior years	-	131	262	393	524
Current year	131	131	131	131	131
	<u>131</u>	<u>262</u>	<u>393</u>	<u>524</u>	<u>655</u>

B/Sheet (Not bon Exam)

PVDBO (1st year end)	- 89
(+) Interest @ 10% on 89	- 9
(+) C.S.C.	- 98
	<u>196</u>
(+) Interest @ 10%	20
(+) C.S.C.	108
	<u>324</u>
(+) Interest @ 10%	32
(+) C.S.C.	119
	<u>475</u>
(+) Interest @ 10%	47
(+) C.S.C.	131
	<u>655</u>
PVDBO at 5th year end	<u>655</u>

Treatment of Remeasurement Gain or loss on Present Value of Defined obligation

C.A. of liability at Year Beginning = ₹50000

Discount rate = 10%

Current Service Cost = 25000

Benefits Paid = 16500

Fair Value of liability at Year End = 131500

Soln → C.A. of liability at Year End = Op PVDBo + Interest Cost + CSC - Benefits Paid

$$= 85000 + 8500 + 25000 - 16500$$
$$= 102000$$

(+) Remeasurement loss	<u>29500</u>	→ R. loss (OCI) 29500
	<u>131500</u>	To PVDBo 29500

Treatment of Remeasurement Gain or loss on Plan Asset

C.A. of Plan Assets at Beginning = 500000

Expected return (Interest rate) = 10% p.a.

Contributions made (Year End) = 120000

Benefits Paid (Year End) = 165000

Fair value of Plan Assets (End) = 530000

Handwritten calculation for Plan Assets:

$$\begin{array}{r} 500000 \\ + 120000 \\ \hline 620000 \\ - 165000 \\ \hline 455000 \\ (+) 90000 \text{ (Actual return)} \\ \hline 545000 \end{array}$$

Note: The handwritten calculation shows an actual return of 90,000, which is 25,000 more than the expected return of 65,000 (10% of 500,000). This 25,000 difference is the Remeasurement Gain.

Soln C.A. of Plan Asset at Year End = Opening P.A. + Interest Income + Contⁿ

$$= 500000 + 50000 + 120000 - 165000$$
$$= 505000$$

(+) Remeasurement Gain	<u>+ 25000</u>	→ Plan Assets 25000
	<u>530000</u>	To R. Gain (OCI) 25000

Actual return = Expected retⁿ ± Remeasurement Gain/loss = 50000 + 25000 = ₹75000

Question 7

SA Pvt Ltd is engaged in the business of retail having 100 retail outlets across Northern and Southern India. The company's head office is located at Chennai. SA Pvt Ltd is a subsidiary of SAG Ltd. SAG Ltd is listed on the National Stock Exchange in India. Following information is available for SA Pvt Ltd:

Plan Assets

At 1st April, 20X1, the fair value of plan assets was ₹ 10,000.

Contribution to the plan assets done on 31st March, 20X2 - ₹ 3,000

Amount paid on 31st March, 20X2 - ₹ 300

At 31st March, 20X2, the fair value of plan assets was ₹ 14,700 Actual return on plan assets - ₹ 2,000

Defined Benefit Obligation

At 1st April, 20X1, present value of the defined benefit obligation was ₹ 12,000.

At 31st March, 20X2, present value of the defined benefit obligation was ₹ 15,500

Actuarial losses on the obligation for the year ended 31st March, 20X2 were ₹ 100.

Current Service Cost - ₹ 2,500

Benefit paid - ₹ 300

Discount rate used to calculate defined benefit liability - 10%.

As per Ind AS 19, please suggest if there is any amount based on the above-mentioned information that would be taken to other comprehensive income (with workings). Also compute net interest on the net defined benefit liability (asset).

Journal Entry for Benefits Paid

BANK 300

To Plan Asset 300

PVDBO 300

To Bank 300

↓
Inpl Entry

PVDBO 300

To Plan Asset 300

PVDBO

opening PVDBO	-	12000
(+) Interest Cost (10% on 12000)	-	1200 (PL)
(+) Current Service Cost	-	2500 (PL)
(-) Benefit Paid	-	(300)
		<u>15400</u>
Remeasurement loss (OCI)		100 (OCI)
closing PVDBO (31.3.02)		<u>15500</u>

Plan Asset	Expected net ²
Opening Plan Asset	10000
(+) Interest (10% on 10000) (PL)	1000
Income Contribution	3000
(-) Benefits Paid	(300)
	<u>13700</u>
Rem. Gain (OCI)	1000
Fair value of Plan Asset	<u>14700</u>

↓
Actual net²
Expected net² + Rem. Gain
= 1000 + 1000
= 2000

10000 + 3000 - 300 = 12700
14700
Actual Gain 2000

Calcⁿ of net Interest

	Interest Expenses on PVDBo	1200
(-)	Interest Income on Plan Asset	<u>(1000)</u>
	Net Interest Cost on net Defined Benefit Liability	<u>200</u>

Alternatively,

	Op. PVDBo	= 12000
(-)	Op. Plan Asset	= <u>(10000)</u>
	Net Defined Benefit Liability	= 2000

$\therefore$ Net Interest Cost on net Defined Benefit Liability = 10% on 2000 = 200

Amount to be included in OCI

	Remeasurement Gain on Plan Asset	1000
"	loss on PVDBo	<u>(100)</u>
	$\therefore$ Net Rem. Gain	<u>900</u>

Not bon Exam

Statement of P/L (Expense)

P.S.C.	2500
Interest Cost (1200 - 1000)	<u>200</u>
	<u>2700</u>

OCI	
Rem. Gain (1000 - 100)	<u>900</u>

B/Sheet & Extracts

Net Defined Benefit Liability ₹15500 - 14700

800

Rough Explanation

	B/Sheet		
PLC → (2500)	→ * -2500 (CSL)	Suspense	2000
PLC → (1200) + 1000	→ * -200 (Int)	Cash	(3000)
OCI → (100) + 1000	→ * 900 (Rem. Gain)		
		Plan Asset	10000
Op. PUDBO	12000	(+) Int Income (10%)	1000
(+) CSL	2500	(-) Benefit Paid	(300)
(+) G. Cost (10% on 12000)	1200	(+) Contn	3000
(-) Benefit Paid	(300)		<u>13700</u>
	<u>15400</u>	(+) Rem Gain (OCI)	1000
Rem. loss (OCI)	100		<u>14700</u>
	<u>15500</u>		
(-) Plan Asset	(14700)		
Net Defined Benefit Liability	* <u>800</u>		

Question 9: (MTP Oct'20) (RTP: May'20) (MTP May'20)

On 1 April 20X1, the fair value of the assets of XYZ Ltd's defined benefit plan were valued at ₹ 20,40,000 and the present value of the defined obligation was ₹ 21,25,000. On 31st March, 20X2 the plan received contributions from XYZ Ltd amounting to ₹ 4,25,000 and paid out benefits of ₹ 2,55,000. The current service cost for the financial year ending 31 March 20X2 is ₹ 5,10,000. An interest rate of 5% is to be applied to the plan assets and obligations. The fair value of the plan's assets at 31 March 20X2 was ₹ 23,80,000, and the present value of the defined benefit obligation was ₹ 27,20,000. Provide a reconciliation from the opening balance to the closing balance for Plan assets and Defined benefit obligation. Also show how much amount should be recognised in the statement of profit and loss, other comprehensive income and balance sheet?

1. Reconciliation of PVDBO

PVDBO	2125000
(+) S.T. Interest cost	106250
(-) Benefits paid	(255000)
(+) C.S.C.	510000
	<u>2486250</u>
(+) Rem. loss	233750
	<u>2720000</u>

2. Reconciliation of Plan Asset

Plan Asset	2040000
(+) Int. Income (5%)	102000
(+) Conf'n	425000
(-) Benefit Paid	(255000)
	<u>2312000</u>
Rem. Gain	68000
	<u>2380000</u>

MAINWANS

Statement of P/L

C.S.C.	- 510000
Interest cost (net)	- 4250

OCI

Rem. loss on PVDBO	= -233750	
" Gain on Plan Asset	= <u>68000</u>	- 165750

Balance

Net Defined Benefit Liab. (2720000 - 2380000)	340000
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DISCOUNT RATE:

1. Discount rate is determined by reference to market yield on government bonds at the end of reporting period.
2. For subsidiaries, associates, joint ventures and branches domiciled outside India: Discount rate is determined by reference to market yield on high quality corporate bonds
3. If there is no deep markets, market rates on government bonds of that country shall be used.

Actuarial Gain/Loss < Remeasurement Gain/Loss > Practical Example

E.g. Gratuity expected to be payable after 5 years.

Year 1 Salary = 500000 WADA

Lump Sum Payment $\Rightarrow$ 20% of last drawn salary on each completed year of service. Discount rate = 12%.

Expected salary increase = 10% every year.

$$\therefore \text{Expected last drawn salary} = 500000 \times (1.10)^4 = 732050$$

$$\therefore \text{Expected lump sum payment} = 732050 \times 20\% \times 5 \text{ yrs} = 732050$$

$$\therefore \text{Benefits attributable each year} = \frac{732050}{5 \text{ yrs}} = 146410$$

0 th	1 st	2 nd	3 rd	4 th	5 th
	~~146410~~	~~146410~~	~~146410~~	~~146410~~	146410
Current service cost	93046	104212	116717	130723	146410
	$\frac{146410}{(1.12)^4}$	$\frac{146410}{(1.12)^3}$	$\frac{146410}{(1.12)^2}$	$\frac{146410}{(1.12)^1}$	
	1 st yr	2 nd yr			
C.S.C.	93046	104212			
I. Cost	—	11165 $\{93046 \times 12\%\}$			
	<u>93046</u>	<u>115377</u>			
			1 st yr	2 nd yr	
			CSC 93046	CSC 104212	
			TO PVDDBO 93046	I.C. 11165	
				TO PVDDBO 115377	

$$\therefore \text{At 2nd yr End, PVDDBO} = \underline{\underline{208423}} \{93046 + 115377\}$$

Now, suppose at 3rd yr End salary is now £ 650000 (3rd yr)

Expected salary increase = 15%.

Discount rate = 13% (3rd yr End)

$$\therefore \text{Last drawn salary} = 650000 \times (1.15)^2 = 859625$$

$$\therefore \text{Expected lump sum payment} = 859625 \times 20\% \times 5 \text{ years}$$

$$= 859625$$

(Revised)

0 th	1 st	2 nd	3 rd	4 th	5 th
	~~171925~~	~~171925~~	~~171925~~	~~171925~~	171925
	105445	119153	134642	152146	
	<u>171925</u>	<u>171925</u>	<u>171925</u>	<u>171925</u>	
	(1.13) ¹	(1.13) ²	(1.13) ³	(1.13) ⁴	
C.S.C. (Revised)	105445	119153	134642		105445 × 13%
I. Cost (Revised)		13708	30980		238306 × 13%
	<u>105445</u>	<u>132861</u>	<u>165622</u>		

At 3rd yr end

$$\therefore \text{P.V. of DBO} = 403928 \quad \langle 105445 + 132861 + 165622 \rangle$$

(Revised) (Fair value of liab)

But, opening PV DBO

$$= 208423$$

(+) Interest cost on 208423 @ original 12%

$$= 25011 \quad \langle \text{Interest cost} \rangle$$

(+) Current service cost (Actual) Revised

$$= 134642 \quad \langle \text{C.S.C.} \rangle$$

$$368076$$

(+) Actuarial loss (O.C.) $(403928 - 368076)$

PV DBO (3rd yr end)

$$= 35852 \quad \langle \text{Remeasurement loss} \rangle$$

$$403928$$

Expenses recognised till 3rd yr end

	1 st	2 nd	3 rd
C.S.C.	93046	104212	134642 (Payable)
I. Cost	-	11165	25011 (Add note on op. PV DBO)
Actuarial loss (O.C.)	-	-	35852
	<u>93046</u>	<u>115377</u>	<u>195505</u>

$$\therefore \text{PV DBO (3rd yr end)} = 93046 + 115377 + 195505 = 403928$$

Concept of Past Service Cost

At 4th yr End, Suppose Plan is now amended to provide 23% of last drawn salary for each completed year of service.

$$\text{last drawn salary} = 859625$$

$$\therefore \text{Expected gratuity} = 859625 \times 23\% \times 5 \text{ yrs} = 988569$$

$$\text{Benefits attributed to each year} = \frac{988569}{5 \text{ yrs}} = 197714$$

change in estimate existing Plan modification

0 th	1 st	2 nd	3 rd	4 th	5 th
	197714	197714	197714	197714	197714
	121262	137026	154839	174968	
	$\frac{197714}{(1.13)^1}$	$\frac{197714}{(1.13)^2}$	$\frac{197714}{(1.13)^3}$	$\frac{197714}{(1.13)^4}$	
C.C. $\Rightarrow$	121262	137026	154839	174968	
I.Cost $\Rightarrow$		15764	35627	60387	
	<u>121262</u>	<u>152790</u>	<u>190466</u>	<u>235355</u>	

$$\therefore \text{P.V. of obligation} = 121262 + 152790 + 190466 + 235355$$

$$\text{4th yr End} = 699873$$

(F.V. of liability)

$$\begin{aligned} \text{Opening P.V.D.B.O (4th yr Begg.)} &= 403928 \\ \text{Interest Cost (4th yr) } (403928 \times 13\%) &= 52510 \text{ (I.Cost)} \\ \text{Current service cost (4th yr) Revised} &= 174968 \\ \hline &= 631406 \end{aligned}$$

Past service cost (P.S.C)

$$\text{P.V.D.B.O} \Rightarrow 68467$$

$$\begin{aligned} \text{Past service cost } 68467 \\ \text{TO P.V.D.B.O} \quad 68467 \end{aligned}$$

$$\begin{aligned} &= 699873 \\ &\Downarrow \\ \text{Suppose Plan Asset} &= 650000 \end{aligned}$$

Statement of P/L (Actual)

Current Service Cost	174968
Interest Cost	52510
Past Service Cost	68467

Other Comprehensive Income

Remeasurement Gain/Loss (Actuarial Gain/Loss)	XXX
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Balance sheet

Net Defined Benefit Liability	49873
(699873 - 650000)	

PAST SERVICE $\Rightarrow$ Amendment or modification on curtailment to an existing plan which changes present value of defined benefit obligation caused by employee service in prior periods.

Past service cost is charged as Expenses to P/L

Curtailment or Settlement

Curtailment arises when entity significantly reduces no. of employees covered by plan. A curtailment may arise due to - closing of a plant, discontinuance of an operation or termination or suspension of a plan.

Curtailment reduces PVDBO.

Journal

PVDBO

TO Gain on Curtailment (P/L)

Settlement

A settlement occurs when entity enters into transaction that eliminates all further legal or constructive obligation.

$$\text{Gain/Loss on Settlement} = \text{P.V. of obligation being settled} \quad \text{less} \quad \text{Settlement Price}$$

↓
Cash Paid on Plan Assets transferred.

Eg. P.V.DBO reduced = £ 5,000,000
Settlement Amount = £ 4,500,000

$$\therefore \text{Gain on Settlement} = 5,000,000 - 4,500,000 = 500,000$$

Journal

Cash	4,500,000
To Plan Asset	4,500,000
P.V.DBO	5,000,000
To Cash	4,500,000
To Gain (P/L)	500,000

Single Entry

P.V.DBO	5,000,000
TO Plan Asset	4,500,000
TO Gain (P/L)	500,000

Defined Benefit Plan

Current service cost

Interest cost

Past service cost if include curtailment

} P/L.

Actuarial Gain/Loss $\Rightarrow$ OCI

Net Defined Benefit Liability / Asset = Plan Asset less P.V.DBO
(ceiling)

Q8

PVIDBO

opening	60000000
(+) Int @ 5%	3000000
(-) Benefits*	(4200000)*
C.S.L.	6200000
P.S.L.	1500000
Curtailement	(8000000)
	<u>58500000</u>
Actuarial loss*	9500000
	<u>68000000</u>

Plan Asset

opening	52000000
Int Income @ 5%	2600000
Cont ⁿ (Bank L)	7000000
(-) Benefit*	(4200000)*
Settlement	(7500000)
	<u>49900000</u>
Actuarial Gain*	6100000
	<u>56000000</u>

Statement of P/L (Extract)

Interest cost $\{ 3000000 - 2600000 \}$	- 400000
Current service cost	- 6200000
Past service cost	- 1500000
Gain on Curtailement (P/L)	+ 500000

Other Comprehensive Income

Remeasurement loss on Defined Benefit obligation	9500000
" Gain on Plan Asset	(6100000)
	<u>- 3400000</u>

D/Sheet (Extract)

Net Defined Benefit Liability	12000000
$\{ 68000000 - 56000000 \}$	

ICA WAY

Calc of Remeasurement Gain / Loss

$$\begin{aligned}
 &\text{Opening NDBL } \{ 60000000 - 52000000 \} = 8000000 \\
 &(+)\text{ Interest net } \{ 8000000 \times 5\% \} = 400000 \\
 &(+)\text{ C.S.C.} = 6200000 \\
 &(+)\text{ P.S.C.} = 1500000 \\
 &(-)\text{ Benefits Paid } \{ -4200000 - (-4200000) \} = \text{NIL} \\
 &(-)\text{ Curtailment } \{ -800000 - (-750000) \} = (50000) \\
 &(-)\text{ Comp } \{ 0 - 700000 \} = (700000) \\
 &\hline
 &= 8600000 \\
 &= 340000 \\
 &\hline
 &= 1200000
 \end{aligned}$$

$\therefore$ Actual loss

Closing NDBL $\{ 680 \text{ l} - 560 \text{ l} \}$

Net cost = $\{ 112 - 91 \} = 21$
P.S.C. = $\frac{55}{76}$
act (67 + 13) = 80

1140
91 (9.00%)
111
1242
87 (P.L. loss)
1275

1400
112 (9.00%)
55
1567
13 (P.L. loss)
1580

Illustration 24 (MTP Oct'19)

Self any

RKA Private Ltd is an old company established in 19XX. The company started with a very small capital base and today it is one of the leading companies in India in its industry. The company has an annual turnover of ₹ 11,000 crores and planning to get listed in the next year.

The company has a large employee base. The company provided a defined benefit plan to its employees. Following is the information relating to the balances of the fund's assets and liabilities as at 1st April, 20X1 and 31st March, 20X2.

	₹ in lacs	
Particulars	1st April, 20X1	31st March, 20X2
Present value of benefit obligation	1,400	1,580
Fair value of plan assets	1,140	1,275

For the financial year ended 31st March, 20X2, service cost was ₹55 lacs. The company made a contribution of an amount of ₹ 111 lacs to the plan. No benefits were paid during the year.

Consider a discount rate of 8%. You are required to -

- Compute the balance(s) of the company to be included its balance sheet as on 31st March, 20X2 and amounts to be recognized in the statement of profit and loss and other comprehensive income for the year ended 31st March, 20X2.
- Give the journal entries in respect of amount(s) to be recognized.

PVDBO

(in laes)

Plan Asset (in laes)

PVDBO as on 1.4.2001	-	1400
(+) Interest cost @ 8%	-	112
(+) C.S.C.	-	55
		<u>1567</u>
Rem. loss* (O/L)		13
		<u>1580</u>

Plan Asset as on 1.4.01	-	1140
Int Income @ 8%	-	91
Conf* (Gain)	-	<u>112</u>
		<u>1342</u>
Rem. loss* (O/L)		67
		<u>1275</u>

Statement of P/L (extract)

Interest cost $\angle 112 - 91.2$
C.S.C.

21 -

55 -

76

Other Comprehensive Income

Remeasurement loss on PVDBO 13
" " on Plan Asset 67

80

80

Total

156

Balance sheet (extract)

Net Defined Benefit Liab $\angle 1580 - 1275$

305

Journal Entries

Int. Cost (P/L)	112
To PVDBO	112
C.S.C. (P/L)	55
To PVDBO	55
R-loss (O/L)	13
To PVDBO	13

Plan Asset	91
To Interest Income (P/L)	91
Plan Asset	111
To Bank	111
R-loss (O/L)	67
To Plan Asset	67

P/L (net)	76
O/L (net)	80
~~P-Asset~~	~~135~~
N.D.B.L.	
To PVDBO	~~100~~ 45
To Bank	111

→ C.S.C. + Int. cost - g. income

→ R-loss & gain

Journal entries in the books of RKA Private Ltd

Particulars		₹ in lacs	₹ in lacs
Profit & Loss	Dr.	76	
Other comprehensive income	Dr.	80	
To Cash (Contribution)			111
To Net defined benefit liability (Refer WN 3)			45

1)	P.L. (P/L)	55	} <u>CHNG</u> P/L (55+21) 76 OCI 80 TO NDBL 45 TO Cash 111
	Interest loss (P/L)	21	
	TO PVDDBO	76	
2)	Rem. loss (OCI)	80	
	TO PVDDBO	13	
	TO Plan Asset	67	
3)	Plan Asset	111	
	TO Bank	111	

$$\begin{aligned}
 \text{PVDDBO} \uparrow (76 + 13) &= 89 \\
 \text{P. Asset} \uparrow (111 - 67) &= \frac{44}{45}
 \end{aligned}$$

Note

$$\begin{aligned}
 \text{Eg. PVDDBO} &= 5000 \\
 \text{Plan Asset} &= 4500 \\
 \therefore \text{Deficit} &= 5000 - 4500 \\
 &= 500 \\
 &\Downarrow \\
 &\text{Net Defined Benefit Liability}
 \end{aligned}$$

$$\begin{aligned}
 \text{Eg. PVDDBO} &= 5000 \\
 \text{Plan Asset} &= 5600 \\
 \therefore \text{Surplus} &= 5600 - 5000 \\
 &= 600 \\
 &\Downarrow \\
 &\text{may be Net Defined Benefit Asset} \\
 &\text{(concept of ceiling Adjustment)}
 \end{aligned}$$

Asset ceiling $\Rightarrow$ Present value of any refunds from the Plan, or Reduction in future contribution to the Plan

$\therefore$ Net Defined Benefit Asset = Surplus or Asset ceiling
(whichever is lower)

Plan Asset less PVDBO
(where, Plan Asset > PVDBO)

P.V. of any refunds, or
Redⁿ in future contribution

Illustration 14

How will the following information be presented in the Balance Sheet of Udyog Ltd.?

Particulars	₹ in lakhs
PV of Defined Benefit Obligations	2,750
Fair Value of Plan Assets	2,975
Asset Ceiling	175

50
0L TO Plan Asset 50

- 50
(0L)

Surplus = $2975 - 2750 = 225$
Asset ceiling = 175

Solution

Particulars	₹ in lakhs
PV of Defined Benefit Obligations	2,750
Less: Fair Value of Plan Assets	(2,975)
Surplus, to be treated as Net Defined Benefit Asset,	225
Asset Ceiling as per Ind AS 19	175
Least of above is Surplus to be treated as Net Defined Benefit Asset under Non-current Assets in the Balance Sheet	175

Eg:

PVDBO = 15000

Fair Value of Plan Asset = 13000

$\therefore$ Deficit = $15000 - 13000 = 2000$

Net Defined Benefit Liability = $15000 - 13000$
= 2000

Ind AS (expected)

Net defined
Benefit Liab 2000

E.g.

$$PVOBO = 15000$$

$$\text{Fair value of Plan Asset} = 18000$$

$$\begin{aligned}\therefore \text{Surplus} &= 18000 - 15000 \\ &= \underline{\underline{3000}} \text{ (Not to be considered)}\end{aligned}$$

$$\text{Net Defined Benefit Asset} = \cancel{3000}$$

Check, Asset ceiling = P.V. of any refund receivable in future or
P.V. of reduction in future contribution.

$$\text{Suppose P.V. of red. in future cont.} = \underline{\underline{1300}}$$

$$\begin{aligned}\text{Net Defined Benefit Asset} &= \text{Surplus or Asset ceiling} \\ &\quad \downarrow \quad \text{(whichever is lower)} \\ &\quad 3000 \quad \downarrow \\ &\quad \quad 1300\end{aligned}$$

Since lower value is 1300

$$\therefore \text{Net Defined Benefit Asset} = \underline{\underline{1300}}$$

Question 11

$$PVOBO = 15000 \checkmark$$

$$\begin{aligned}\text{Plan Asset} &= 18000 - 1700 \text{ (Effect of asset ceiling)} \\ &= 16300 \checkmark\end{aligned}$$

through 11

$$\therefore \text{NDBA} = \underline{\underline{1300}}$$

Short Example (exam)

$$\begin{array}{l} \text{PVDBO} = 45000 \\ \text{Plan Asset} = 49500 \end{array} \quad \left. \vphantom{\begin{array}{l} \text{PVDBO} = 45000 \\ \text{Plan Asset} = 49500 \end{array}} \right\} \text{Surplus} = 4500$$

$$\underline{\text{Asset ceiling}} = 3200 \quad \leftarrow \text{P.V. of Refunds / Future Savings}$$

$$\text{lower} = \underline{\underline{3200}} \quad \leftarrow \text{Difference of £ 1300 will be reduced from Plan Asset}$$

OCC OF 1300

TO Plan Asset 1300



$$\text{PVDBO} = 45000$$

$$\text{Plan Asset} = 48200 \quad \leftarrow 49500 - 1300$$

$$\therefore \text{NDBA} = \underline{\underline{3200}}$$

$$\text{Suppose, Asset ceiling} = 4900$$

Then,

Surplus of £ 4500 will be considered and asset ceiling being higher than surplus will be ignored.

$$\text{NDBA} = \text{Surplus} = \underline{\underline{4500}}$$

Illustration 16

A plan pays a benefit of ₹ 150 for each year of service. The benefits vest after ten-years of service. Compute the benefit to be attributed each year?

100 Employees

70 Emp → 10yrs on more service

30 Emp → less than 10yrs service

150 150 150 150 150
PV.

Solution:

- 1) A benefit of ₹ 150 is attributed to each year.
- 2) In each of the first ten years, the current service cost and the present value of the obligation reflect the probability that the employee may not complete ten years of service. This is because the benefits vest at a future date (i.e., after ten years of service).

Soln 1. Benefit of ₹ 150 attributed to each year

2. Each year, CSC & PVDBD reflect probability that emp. may not complete 10 yrs of service because benefits vest after 10 years

Illustration 20* Imp.

A post-employment medical plan reimburses 40 percent of an employee's post-employment medical costs if the employee leaves after more than ten and less than twenty years of service and 50 percent of those costs if the employee leaves after twenty or more years of service. How will the benefit be attributed to the years of service?

Solution:

- 1) Under the Plan's Benefit Formula, the entity should attribute 4% of the present value of the expected medical costs ($40\% \div 10$ years) to each of the first ten years, and 1% ($10\% \div 10$ years) to each of the second ten years.
- 2) For employees expected to leave within 10 years, no benefit is attributed.
- 3) The Current Service Cost in each year reflects the probability that the employee may not complete the necessary period of service to earn part or all of the benefits.

Illustration 21* Imp.

A post-employment medical plan reimburses 10 percent of an employee's post-employment medical costs if the employee leaves after more than ten and less than twenty years of service and 50 percent of those costs if the employee leaves after twenty or more years of service. How will the benefit be attributed to the years of service? Straight line method.

1st 10yrs → 1%
next 10yrs → 4%

9/11/20

Emp. with less than 10 yrs of service = No benefit attributed.

Emp. with more than 10yrs but less than 20yrs = 40% $\left\{ \frac{40\%}{10yrs} = 4\% \text{ each year} \right\}$

Emp. with more than or equal to 20 yrs = 50% $\left\{ \frac{40\%}{10yrs} \text{ for 1st 10yrs} \right.$
 $\left. \text{and } \frac{10\%}{10yrs} \text{ for next 10yrs} \right\}$

1st 10yrs → 4% each year

next 10yrs → 1% each year

1000 Emp

650 Employees



Expected that they will leave before 10 yrs



No benefits attributed.

250 Employees



Expected that they will work but atleast 10 yrs but will leave before 20 yrs

> 10 yrs < 20 yrs



40% of medical cost



$$\text{Emp A} = 10 \text{ yrs} = \frac{40\%}{10 \text{ yrs}} = 4\%$$

$$\text{Emp B} = 12 \text{ yrs} = \frac{40\%}{12 \text{ yrs}} = 3.3\%$$

$$\text{Emp C} = 15 \text{ yrs} = \frac{40\%}{15 \text{ yrs}} = 2.7\%$$

$$\text{Emp D} = 18 \text{ yrs} = \frac{40\%}{18 \text{ yrs}} = 2.2\%$$



100 Employees



Expected that they will work for 20 yrs or more



50% of medical cost

~~$\frac{50\%}{20 \text{ yrs}} = 2.5\%$~~

First 10 yrs = 40%

Another 10 yrs = 10%

1st 10 yrs = $\frac{40\%}{10 \text{ yrs}} = 4\%$

Another 10 yrs = $\frac{10\%}{10 \text{ yrs}} = 1\%$

~~9121~~ ~~650 Emp~~



250 Employees



Expected that they will work but atleast 10 yrs but will leave before 20 yrs

> 10 yrs < 20 yrs



10% of medical cost

$$\frac{10\%}{10 \text{ yrs}} = 1\% \text{ each yr.}$$

100 Emp

20 yrs or more service

First 10 yrs = 10%

Next 10 yrs = 40%

~~1st 10 yrs = $\frac{10\%}{10} = 1\%$~~

~~Next 10 yrs = $\frac{40\%}{10} = 4\%$~~



Straight line method



$$\frac{50\%}{20 \text{ yrs}} = 2.5\%$$

10 yrs - 20 yrs $\rightarrow$ 10%
 20 yrs $\rightarrow$ 50%

↓
 If service in later years
 will lead to materially
 higher amount of benefit
 than earlier years
 ↓
 Apply straight line
 method

i.e. $\frac{50\%}{20 \text{ yrs}} = 2.5\%$ each yr.

↑ Earlier years = 10%
 later years = 40 ↓

Illustration 22 ~~*** Imp.~~

AKJ Ltd is a listed company engaged in the business of manufacturing of electronic equipment. The company has various branch offices spread out across India and has 1,000 employees. As per the statutory requirements, gratuity shall be payable to an employee on the termination of his employment after he has rendered continuous service for not less than five years -

- on his superannuation, or
- on his retirement or resignation, or
- on his death or disablement due to accident or disease.

The completion of continuous service of five years shall not be necessary where the termination of the employment of any employee is due to death or disablement.

The amount payable is determined by a formula linked to number of years of service and last drawn salary. The amount payable to an employee shall not exceed ₹ 10,00,000.
 Compute the amount of employee benefit, if any, attributed to each year of service.

~~E.g.~~ Emp A $\rightarrow$ LDR = 1500000, Gratuity = 10% for each completed year of service.

Employee is expected to work for 6 yrs.

$$\text{Lump sum payment} = 1500000 \times 10\% \times 6 \text{ yrs} = 900000$$

$$\therefore \text{Benefits attributed to each year} = \frac{900000}{6 \text{ yrs}} = 150000$$

150000

2nd
150000

319
—
150006

150000

150000

6^m
150000

Emp B

LOR = 1500000, Growth = 10%,

Emp. expected to work for 10 years:

Lump Sum Payment = $\underbrace{1500000}_{150000} \times 10\% \times 1.4m = 1500000$

$$\text{Benefits aft. each year} = \frac{1500000}{10\text{yr}} = 150000$$

14
—
150000

ud
15000

Hyrd
157000

47
150000

150000

6th
(S0000)

34
~~15000~~
10000

100000

3. Offer long term Employee Benefits



Same Accounting as that of Post Employee Benefit'

C.S.C. , Interest cost, P-S-C. , Actuarial Gain (loss)
(P/L) (P/L) (P/L) (P/L)

(p/v)

$(P|C)$

(P/C)

(P/L)