AS 15: Employee Benefit (Revised)

(1) Objective of AS - 15

To provide the accounting treatment of employee benefit and disclosure requirement thereof. The standard clarifies that enterprise should account for

(a) A liability when the work has been performed by the employee but payment will be made in future.

(b) Expenses if the benefit of work has been consumed by the entity.

(2) Applicability of AS 15

AS-15 applies to all type of entity Level I, Level II, Level III, SME & Non SME. Partial exemption is available for Level-II & Level – III and SME.

Details of Exemption :-

(i) Not required to make provision for short term compensated absence.

(ii) Not required to discount long term employee benefit.

(iii) Not required to value defined benefit obligation either funded or non-funded in ease of long-term employee benefit plan only actuarial assumption is required.

Note :

1. *If an enterprise is having 50 or more employee on average basis during the year and the enterprise fall in the category of SME then above three exemption are granted.*
2. *If an enterprise having less than 50 employee on average basis during the year and the enterprise satisfied the definition of SME than one extra exemption* is allowed :

"The Enterprise is not required to make actuarial assumption for accounting of employee benefit."

(2) Meaning of Employee

Person appointed by entity for providing services and includes

- Temporary Worker / Employee
- Part time Worker / Employee
- Full time employee

(3) Meaning of Employee Benefit

It means benefit or consideration provided by entity to employee or it's dependent. Such benefit can be in cash or in kind.

Such benefit is due to

- Legislative requirement (Provident Fund)
- Agreement with employees
- Informal Practices

(4) Types of Employee Benefit

(A) Short Term Employment Benefit

(B) Termination Benefit

(C) Post Employment Benefit

(D) Other Long Term Employment Benefit

(A) Short Term Employment Benefit

(i) Meaning :-

Employee benefit which is for a period of 12 month or less is covered under short term employment benefit.

(ii) Example :

(i) Short term compensated absence
(ii) Bonus
(iii) Salary etc.

(iii) Analysis

Term	Status	Treatment of benefit
Salary paid	Benefit received	Record as expenses.
Salary not paid	Benefit received	Book expenses along with liability
Salary Paid	Benefit not receive	Book it as advance salary(asset)

(ii) Treatment of Short term compensated absence :-

Leave

- Availed by Employee (No Treatment)
- Not availed by Employee
  - Accumulation allowed
    - Leave in lieu of Leave (Unvested Leave) → Provide proportionate liability
    - Cash for Leave (Vested Leave) → Provide for Full Liability
  - Accumulation not allowed (No Treatment)

Example :- (1)

XYZ Ltd. has group of employee from which the detail of Mr. Ram Lal is available –

Leave allowed by XYZ Ltd.	30 days
Salary of employee	25,000 per month
Working in a month	25 days

Ram Lal has accumulated 32 days leave in 2006-07 from which 27 days was availed by him in 2007-08. Total accumulated leave by Ram Lal in 2007-08 is 40 days. You are required to pass journal entries in the books of XYZ Ltd. for Ram Lal on 31.3.2008 assuming.

Case I : Leave is Vesting

Case II : Leave is un-vesting.

Ans. :-

Case I :- Leave is Vesting (Cash for Leave)

Leave accumulated by Ram Lal	=	40 days
Bench Mark (maximum allowed days)	=	30 days
		10 days lapsed

Amount for which provision is required = 25,000 x 30 / 25 = 30,000

Employee Benefit Dr. 30,000
To Cash A/c / Prov. For Employee Benefit 30,000
(Being accumulated payment made)

Case II :-

(i) Calculation of Proportion of availing leave :-

2006-07 :	Leave accumulated	=	32 days
	Maximum allowed	=	30 days
		=	2 days lapsed

From accumulated 30 days Ram Lal has availed 27 days.
Ratio of availing leave = 27 x 100 / 30 = 90%

(ii) Amount of Provision to be booked in 2008

Amount = 25000 x (40 – 10) x 90% / 25 = 27,000

Employee benefit a/c Dr. 27,000
To Provision for employee benefit 27,000
(Being provision made)

Example :- (2)

A Ltd. has following detail of leave to its employee

Name	Total Leave	Total Leave availed	Vested Leave	Unvested Leave	Probability
X	80	50	20	5	.90
Y	70	45	15	10	.70
Z	60	50	--	9	.60
M	90	70	20	--	.50
N	85	65	10	10	1.00
P	65	45	9	1	.20
			74		

Salary per working day is Rs. 1000.
Journalise entry for Short Term Compensated Absence.

Ans. :-

Case 1 :- For Vested Benefit –

Salary A/c Dr. 74000
To Outstanding Salary A/c 74000
(Being amount payable for short term compensated absence journalise)

Calculation of Liabiliites

(a)	Total number of vested leave	=	74
(b)	Salary per day	=	1000
(c)	Total Liabilities	=	74 x 1000 = 74000

Case 2 :- For Unvested Leave

Salary A/c Dr. 27,100
To Outstanding Salary A/c 27,100
(Being Short term compensated absence journalized)

Calculation of Liabilities

Name of employee	Unvested Leave	Probability	Days
X	5	.90	4.5
Y	10	.70	7.0
Z	9	.60	5.4
M	--	--	--
N	10	1.00	10
P	1	.20	.20
			27.1

Total Liability 27.1 x 1000 = 27,100

Note :- For unvested leave always proportionate amount is recognized in the books of account.

(B) Termination Benefit

(i) Meaning :- Termination benefit are employee benefits, payable as a result of

(a) An enterprise's decision to terminate an employee's employment before the normal retirement date, or

(b) An employee's decision to accept voluntary redundancy in exchange for those benefits (voluntary retirement)

(ii) Recognisition & Measurement :- An enterprise should recognize termination benefit as liability & expenses when and only when :

a. The enterprise has a present obligation as a result of past events.
b. It is probable that an outflow of resources embodying the economic benefits will be required to settle the obligation.
c. A reliable estimate can be made of the amount of the obligation.

Note :- If any entity have compensation of voluntary retirement it can be deferred as a miscellaneous expenditure. Such deferred expenditure should be written off by 31.3.2010. This defferal is optional.

No such deferment is allowed under IAS 19. Total VRS is recognized in the statement of Profit & Loss.

(C) Post Employment Benefit

(i) Meaning of Post Employment Benefit :-

It means employee benefits payable after the completion of employment (other than termination benefit)

Exp. :- Pensions, Post Employment Life Insurance, Medical Care etc.

(ii) Types of Post Employment Benefit

(a) Defined Contribution Plan	(b) Defined benefit Plan
❖ Enterprises pays a fixed contribution to a separate entity, periodically.	❖ Enterprise may pay contribution to separate entity, periodically.
❖ Enterprise will have no further obligation to pay, even if that entity does not have adequate assets to pay the benefits.	❖ Enterprise may carry further obligation to pay. ❖ Actuarial assumptions are required.
❖ The actuarial and investment risk is on the separate entity.	❖ There is possibility of Actuarial gain or losses and this risk is born by employer entity. ❖ These plan may be fully funded or only partly funded, or sometimes even unfunded.

(a) Defined Contribution Plan

(i) Meaning :- These are post employment benefit plan under which an entity pays fixed contribution into a separate entity (a fund) and will have no legal or constructive obligation to pay further contribution if the fund does not hold sufficient assets to pay all employee benefits relating to employee service in the current and prior period.

Example : R Ltd. has 2300 employee of different categories. R Ltd. has established a plan (Ex. : Provident Fund) in terms of which every month employee contributes 10% of their salary, and R Ltd. independently contributes 10% of salary of employee. The amount so raised is placed with separate trust.

The trust manages benefit plan fund it receives the amount, make investments generates income and disburse the amount as and when each employee retires. Once R Ltd. contributes it's share of payment, no additional liability devolves on R Ltd.

(ii) Risk Involved :- *Two types of risk is involved here*

- ❖ Actuarial risk i.e. benefit that accrue to an employee may be less than expected.
- ❖ Investment risk i.e. the value of investment may be inadequate to meet the payment when they fall due.

Since employer is only required to pay a fixed sum hence these risk fall only on the risk taker entity.

(iii) Accounting issues

Case A :- When obligation of an enterprise fall due for payment within 12 month from the end of the year.

Journal Entry :

Employee Expenses A/c	Dr.	xxxxx (Current year exp.)
Prepaid Employee Exp. A/c	Dr.	xxxxx (Advance Payment)
To Cash / Bank A/c		xxxxx (Amount paid)
To Outstanding employee exp. A/c		xxxxx (Amount not paid)

Note :-

(1) This is similar to short term employee benefit.

(2) If required by another standard that such cost should be capitalised then capitalise it.

Case B : When obligation of an enterprise do not wholly fall due for payment within 12 month.

Journal Entry :

Employee Expenses A/c	Dr.	xxxxx
To Outstanding employee exp.		xxxxx (at present value)

Note :- Discount rate should be determined by market yield at the balance sheet date on government bond.

(iv) Presentation :- *The Financial statement of defined contribution plan shall contain*

- Statement of the net assets available for benefit.
- A description o the funding policy.

The following case study shows how the statement of the net assets is prepared by

ADC TELECOMMUNICATIONS, INC. RETIREMENT SAVINGS PLAN

- (Employer Identification Number : 41-0746912) (Plan Number : 002)
- Statements of net assets available for benefits

	As of December 31	
	2000	**1999**
Assets	**$**	**$**
Cash and cash equivalents	----	730,008
Investments, at fair value	491,783,026	497,980,489
Contributions receivable - Employee	69,762	----
Contributions receivable - Employer	121,908	----
Liabilities		
Overdraft payable	(17,252)	----
Net assets available for benefits	491,957,444	498,710,497

The accompanying notes are an integral part of these statements.

(v) Disclosure :-

In P & L; an enterprise should disclose the amount recognized as an expense for defined contribution plan.
As a part of notes to account; where required by AS-18 (Related Party Disclosure) an enterprise disclose information about contribution to defined contribution plans for key management personnel.
Note :- In case of SME Present Value concept is not required to be applied.

(B) Defined Benefit Plan

(i) Meaning :- These are post employment benefit plan other than contribution plan.

(ii) Analysis :-

- Under defined benefit plan the entity obligation is to provide the agreed benefit to current and former employee.
- Actuarial risk (that benefit will cost more than expected) and investment risk fall, in substance on the entity. If actuarial or investment experience is worse than expected, the entity's obligation may be increased.
- This basically means that employer agree to give their employees for exp. : a defined benefit when they retire e.g. a pension payable after they retire of 80% of their final salary. The problem faced by the employers is the following :
    - How much should the employer pay into the pension fund to be sure that it can pay the employee 80% of their final salary?
    - How does the employer know how many of its employees will stay with them to retirement ?
    - How does the employer know what the final salary of employee could be?

(iii) Accounting Issues :-

Step 1 : *Use actuarial technique for*

(a) Determination of benefit attributable to current period and prior period.

(b) Making estimation about demographic variables (i.e. employee turnover and mortality) and financial variable (i.e. future increase in earning and medical cost) that will influence the cost of benefit.

Step 2 : Determination of the present value of defined benefit obligation and the current service cost by discounting the two using projected unit credit method (PUCM).

Step 3 : Determination of the fair value of plan assets.

Step 4 : Determination of

- Total actuarial gains and losses
- The amount of actuarial gain or loses to be recognized in the financial statement.

Step 5 : Determination of past service cost where plan has been introduced or changed.

Step 6 : Determination of resulting gain/loss where a plan has been curtailed or settled.

Note 1 : Analysis of Step 1 "Use of Actuarial Technique"

(a) Determination of benefit for the current period and prior period

(i) As per the provision of the standard, an entity shall allocate benefit to period of service under the plan benefit formula i.e. the amount of pension which is payable on retirement need to be allocated to each financial year until the time when obligation materialize.

Exp. : R Ltd. has a defined benefit plan for its employees. According to the plan a sum of 2,50,000 is payable at the time of retirement. This 2,50,000 will be allocated in each of the year of service.

(ii) When the benefit are conditional on the future employment then while allocating the benefit to the period of service, the probability of some employee not meeting the required condition needs to be considered.

Exp. : R Ltd. employees are eligible for additional pension after becoming 70 year. While determining the present value of the obligation the probability that not all employee will service needs to be considered. R Ltd. will estimate that, for example, 80% of employees will reach 70 years.

(iii) When the contract is such that benefit is awarded only after the fulfillment of certain condition. In this case obligation will increase each year. But liability will arise at the time when condition is fulfilled.

Exp. : R Ltd. has defined benefit plan where it pays a lump sum pension of Rs.6,00,000 on the completion of 5 year service. The obligation will arise only if the employee serviced for 5 year.

(iv) Where the employee service in later year will lead to a materially higher level of benefit then in earlier year the entity shall allocate the benefit on straight line basis from
the date when service by the employee fist leads to benefits under the plan, until
the date when further service by the employee will lead to no material amount of further benefit.

Exp. : R Ltd. has a defined benefit plan where it pays 22% of the final salary as pension. In addition, the amount of pension increases to 30% of the final salary if the employee completed 20 year of service. Here the employee is to be calculated on straight line basis. The period for calculation is from date of joining upto the date of completion of 20 year of service.

(v) Where the amount of benefit is constant proportion of the final salary for each year of service, even though future salary increases will affect the amount of benefit obligation, there is no need to create an additional provision in this respect.

(b) Estimation of demographic and financial variables :

(i) Demographic assumptions relate to the future characteristics of current and former employees. They deal with assumptions relating to :

- Mortality, both during and after employment
- Rates of employee turnover, disability and early retirement
- The proportion of plan members with dependents who will be eligible for benefits

- Claim rates under medical plans

(ii) Financial assumptions relate to :

- The discount rate
- Future salary and benefit levels
- In the case of medical benefits, future medical costs, including, where material, the cost of administering claims and benefit payments.
- The expected rate of return on plan assets.

Note 2 :- Analysis of Step 2 " Projected Unit Credit Method (PUCM)"

In order to determine the PV of the defined benefit obligation and the related service cost and where applicable past service cost Projected Unit Credit Method (PUCM) is used.

Example :- (1)

Nature of benefit payable	:	One Lump sum
Basis of Payment	:	1% of final salary, for each year of service
Salary for current year	:	20,000
Increase each year	:	5% Compounding
Number of year of service	:	Six
Expected last drawn salary	:	25,500
Appropriate discount rate	:	6%

Journalize.

Ans. :- **Determination of obligation under PUCM**

Year	**1**	**2**	**3**	**4**	**5**	**6**
Benefit for prior years	0	255	510	765	1020	1275
1% of Final salary [25,500 x 1%]	255	255	255	255	255	255
Total	**255**	**510**	**765**	**1020**	**1275**	**1530**
Current year opening obligation	0	190	404	643	908	1203
Interest @ 6%	0	12	25	38	54	73
Current service cost						
[PV of Final Salary at 6%]	190	202	214	227	241	255
	[255 x .745]	[255 x .79]	[255 x .84]	[255 x .889]	[255 x .943]	[255 x 1]
Total closing obligation	**190**	**404**	**643**	**908**	**1203**	**1531**

Journal Entries :-

Year 1

Interest Cost	Dr.	0	
Current Service Cost	Dr.	190	
To Defined Benefit Obligation			190

Year 2

Interest Cost	Dr.	12	
Current Service Cost	Dr.	202	
To Defined Benefit Obligation			214
(Being expenses recorded)			

Year 3

Interest Cost	Dr.	25	

Current Service Cost	Dr.	214	
To Defined Benefit Obligation			239
(Being expenses recorded)			

Year 4

Interest Cost	Dr.	38	
Current Service Cost	Dr.	227	
To Defined Benefit Obligation			265
(Being expenses recorded)			

Year 5

Interest Cost	Dr.	54	
Current Service Cost	Dr.	241	
To Defined Benefit Obligation			295
(Being expenses recorded)			

Year 6

Interest Cost	Dr.	73	
Current Service Cost	Dr.	255	
To Defined Benefit Obligation			328
(Being expenses recorded)			

Example :- (2)

A Ltd. Has to pay retirement benefit of 25% of last drawn salary for each completed year. No. of year remaining till retirement are 6.

Current salary is Rs. 5000. It is expected to grow at 10% p.a. discount rate is 12%.

Journalise Assume contribution is made at the beginning of the year.

Ans. :-

Determination of obligation under PUCM

Year	**1**	**2**	**3**	**4**	**5**	**6**
Current year opening obligation	0	1144	2559	4300	6421	8988
Interest @ 12%	123	274	461	688	963	1294
Current service cost	1021	1141	1280	1433	1604	1798
	[2013 x .507]	[2013 x .567]	[2013 x .636]	[2013 x .712]	[2013 x .797]	[2013 x .893]
Total closing obligation	**1144**	**2559**	**4300**	**6421**	**8988**	**12080**

Calculation of Last on Salary = 5000 x 110% x 110% x 110% x 110% x 110% = 8053

Retirement benefit = 8053 x 25% = 2013

Journal Entries :-

Year 1

Interest Cost	Dr.	123	
Current Service Cost	Dr.	1021	
To Defined Benefit Obligation			1144

Year 2

Interest Cost	Dr.	274	
Current Service Cost	Dr.	1141	
To Defined Benefit Obligation			1415
(Being expenses recorded)			

Year 3

Interest Cost	Dr.	461	
Current Service Cost	Dr.	1280	
To Defined Benefit Obligation			1741
(Being expenses recorded)			

Year 4

Interest Cost	Dr.	688	
Current Service Cost	Dr.	1433	
To Defined Benefit Obligation			2121
(Being expenses recorded)			

Year 5

Interest Cost	Dr.	963	
Current Service Cost	Dr.	1604	
To Defined Benefit Obligation			2567
(Being expenses recorded)			

Year 6

Interest Cost	Dr.	1294	
Current Service Cost	Dr.	1798	
To Defined Benefit Obligation			3092
(Being expenses recorded)			

Note 3 : Analysis of Step 3 "Fair Value of Plan Assets"

Plan Assets comprise in the main, asset held by long term employee benefit funds

(a) Assets held by long term employee benefit fund are assets that

- Are held by an entity (a fund) that is legally separate from the reporting entity and exist solely to pay for fund employee benefit.

  Example :- Joy Insurance manages a pension fund for various entities of the banking sector. Here, the employers of various banks pay contributions to the scheme. Therefore the pension fund managed by Joy Insurance holds assets and the Joy Insurance pension fund is legally separate from the banking companies which are participants of the scheme. The assets held by the pension fund therefore qualify for assets held by a long-term employee benefit fund.

- Are available to be used only to pay or fund employee benefits, are not available to the reporting entity's own creditors (even in bankruptcy), and cannot be returned to the reporting entity.

  Example :- Continuing the above example, the assets held by Joy Insurance are used to make payments of employee benefits only. If Roop Bank which is a member of the fund becomes bankrupt, the assets of the pension fund will not be available to make payments to Roop bank's creditors. It will be held for employees of Roop Bank.

- Plan assets do not include unpaid contribution due from the reporting entity.

(b) Measurement of Plan Assets

- **For Quoted Investments :-** The bid price should be used for measuring the fair value of quoted investment.

  Example :- R Ltd., which has a pension fund, hold investment in the form shares in T Ltd. The share of T Ltd. are traded and, as the Balance Sheet date, each share is quoted at 75. R Ltd. pension fund has three hundred share of pension fund thus the plan assets will be valued at 300 x 75 = 22,500.

- **For Unquoted Investment :-** As per AS-30, unquoted investment are valued using
  - Recent arm length transaction to determine the price.
  - Discounted Cash Flow.
- Option Pricing Model.

(c) Journal Entries under Plan Assets

I. For Contribution to Plan Asset

Plan amount account Dr.
To Bank account
(Being investment purchased account)

II. Benefit paid from Plan amount

Bank Account Dr.
To Plan Amount
(Being investment sold)

Note :- Profit & Loss is not calculated on Sale

III. Return on Plan Asset

Plan amount account Dr.
To Expected Return
(Being return on plan amount recorded)

Note :- This entry is journalized based on expectation on the entity on the last day of the year. All those expected return is known since the beginning of the year. It is always assumed that expected rate of return is compounded half yearly. All contribution and benefit are assumed in middle of the year.

Note 4 : Analysis of Step 4 "Actuarial Gain / Loss"

Difference between the actual return and expected return on plan assets is the actuarial gain/loss.

- **Return on plan assets is determined as follows :**
  - The actual return from plan assets.
  - Unrealised gain/losses on plan assets.
    - Exclude costs of administering the plan.

- Exclude tax payable on plan.

- Expected return on plan assets is based on market expectations at the beginning of the period for the return over the entire life of the related obligation.

Conclusion -

Statement of Actual return on Plan Assets

Fair value (at the end of reporting period)	xxxxx
Add : Benefits paid	xxxxx
Less : Contribution received	(xxxx)
Less : Fair value of plan assets at the beginning of the year	(xxxx)
Actual return	xxxxx

Example :- (1)

	Rs.
Return on Rs. 20,000 for 12 months at 10%	2,000
Return on Rs. 6,000 held for 6 months at 5%	
(Equivalent to 10% annually, compounded every 6 months)	300
Expected return on plan assets	
	1,700
Fair value of plan assets on 31.12.2006	30,000
Fair value of plan assets as on 1.01.2006	20,000
Contribution received	9,800
Benefits paid	3,800

Ans. :- Calculation of actual return on plan assets

	Rs.
Fair value of plan assets as at 31.12.2006	30,000
Less : Fair value of plan assets as at 1.1.2006	(20,000)
Less : Contributions received	(9,800)
Add : Benefits paid	3,800
Actual return on plan assets	4,000

Alternative,

Plan Assets Account

To Balance b/d	20,000	By Cash	3800
To Cash	9800	By Bal. C/d	30,000
To Actual Return (bal. fg.)	4,000		
	33,800		33,800

Working Note 1 :

Rs. 6,000 is the assets held for six months. The Investments are part of Rs. 20,000

Actuarial gain / loss = Actual return - Expected return

= 4,000 - 1,700 = 2,300

Determination of Actuarial gain / loss of defined benefit obligation :

Statement of actuarial gain / loss

PV of obligation at beginning of period (actuary tell us)	xxxxx
Interest cost (to increase obligation)	xxxxx
Current and past service cost	xxxxx
Benefit paid	(xxxx)
Actuarial gain / loss (b.f.)	xxxxx
P.V. of obligation at the end of period	xxxxx

Example :- (2) The following details are provided to you :

	Rs.
Present value of obligation, at the beginning of the period	2,000
Interest cost for the period	200
Current and past service cost	260
Benefits paid	(300)
Present value of obligation, at the end of the period	**2,282**

Answer :-

	Rs.
	Rs.
Present value of obligation, at the beginning of the period	2,000
Interest cost	200
Current and past service cost	260
Benefits paid	(300)
Actuarial (gain) loss on obligation (balancing figure)	122
Present value of obligation, at the end of the period	**2,282**

Recognition of Actuarial gain / loss :

Actuarial gains and losses comprises :

(a) Experience adjustments (the effect of difference between the previous actuarial assumptions and what has actually occurred).

(b) The effect of changes in actuarial assumption.

Examples of actuarial gain & loss :-

- Differences between the actual return on plan assets and the expected return on plan assets.
- The effect of changes in the discount rate.
- The effects of changes in estimates of future employee turnover, early retirement or mortality or of increases in salaries, benefits or medical cost.

Conclusion :- As per AS-15 the actuarial gain / loss is recognised in the statement of profit loss.

Example :- (3)

Calculate expected Return

Fair value of P.A.	1,00,000
Contribution	25,000
Benefit Paid	15,000
Expected Rate of Return	15% p.a.
Fair value P.A. (closing)	1,30,000

Answer :-

Plan Assets Account

To Balance b/d	1,00,000	By Bank	15,000
To Bank Contributed	25,000	By Bal. c/d	1,30,000
To Actual Return	20,000		
	1,45,000		1,45,000

Calculation of Actuarial Gain & Loss :-

Actual Return	= 20,000
Less : Expected Return	= 15,728
Actuarial Gain	= 4,272

Calculation of Expected Return :-

Opening Balance		1,00,000
Effective interest rate		7.24%
Total expected return for 1st Six month	= 1,00,000 x 7.24% =	(a) 7240

For Next 6 months (1,00,000 + 10,000 + 7240) x 7.24%	(b) 8,488
Total expected return (a) + (b)	15,728

Note :- Actual return accrue evenly during the year

Calculation of effective interest rate

Let 6 months interest = X%

X% + X% + X x X / 100 = 15

$.01X^2 + 2x - 15 = 0$ Or, $\frac{-b + \sqrt{b^2 - 4ac}}{29}$ Or, $\frac{-2 + \sqrt{4 - 4 \times .01 \times (-15)}}{2 \times .01}$

= 7.24% per 6 months interest

Provision of IAS – 19 (Corridor Concept)

Step 1 : Calculate the net cumulative unrecognized gain / loss at the end of previous reporting period.

Step 2 : Determine the corridor - It is the greater of

10% of the P.V. of the defined benefit obligation at the date (before deducting plan asset); and 10% of the fair value of any plan assets at that date

Step 3 : Compare Step 1 and Step 2

If amount calculated in Step 1 is more than Step 2 then the difference is divided among the remaining working life among the employee participating in the plan and the amount so arrived is transferred to P/L A/c.

If amount calculated in Step 1 is less then Step 2 it means that amount unrecognized is within the limit of corridor. In such case entity may defer the recognition of the gain / loss in the statement of Financial Position (B/S).

Note :- Amount determined in Step 1 and Step 2 can alternatively also be shown in the statement of changes in equity.

Example :- The following information relates to a company's defined benefit pension plan at the end of 2006 :

	Rs.
Present value of defined benefit obligation	1,500
Fair value of plan assets	800
Unrecognized actuarial gains (presented as a liability in the BS)	285

Average remaining working lives of employees participating in the plan 10 years.

Required :

What amount of actuarial gain / loss is shown in the statement of comprehensive income ?

Answer :-

Step 1 : Cumulative actuarial unrecognized gain (given in question)	285
Step 2 : Amount of corridor limit	
(a) 10% of defined obligation [1500 x 10%]	150
(b) 10% of the fair value of plan assets [800 x 10%]	80
Benchmark	150

Amount to recognized in the statement of comprehensive income (P & L) = [285 - 150] / 10 = 13.5

Under AS - 15 Amount of 285 - 150 = 135 will be immediately recognized in the income statement.

Note :- An entity may adopt other systematic method that will result into faster recognition provided that similar concept is applied for both actuarial gain / loss.

Note 5 : Analysis of Step 5 "Past service cost"

- **Past Service cost** is the increase in the present value of the defined benefit obligation for employee service in prior periods, resulting in the current period from the introduction of, or changes to, post-employment benefits or other long-term employee benefits. Past service cost may be either positive (where benefits are introduced or improved) or negative (where existing benefits are reduced).
- **Therefore, past service cost** occurs either due to an introduction or a change to a post-employment benefits plan. It is the change in the present value of the defined benefit obligation for employee service in prior periods.

  Exp. : An enterprise operates a pension plan that provides a pension of 1.5% of final salary for each year of service. The benefits become vested (are given) after seven years of service. On 1 January 2006 the enterprise improves the pension to 2% of final salary for each year of service starting from 1 January 1999.

  In this case there is a change to a post-employment benefit plan i.e. from 1.5% to 2% . Therefore the past service cost occurs.
- **Past service cost** is to be measured as follows :

  Recognition of past service cost as an expense on a straight -line basis over the average period until the benefits become vested.

  Recognition of past service cost immediately to the extent that the benefits are already vested immediately on the introduction of, or changes to, a defined benefit plan.

Journal Entries

Past Service Cost A/c Dr. (vested)
Unrecognized past service cost Dr. (unvested)
To Defined benefit obligation (present value)
(Being Liabilities increased)

Note :- Unrecognized past service cost shall be written off through profit & Loss account remaining working life of employee.

Note 6 :- Analysis of Curtailment & Settlement

Whenever any defined benefit obligation is modified which reduced liability of defined benefit obligation then entry would be

Defined benefit obligation Dr.
To unrecognized past service cost
To Profit & Loss Account
(Being liabilities decreased)

(iii) Disclosure Requirement

(i) Accounting Policy of Employee Benefit

(ii) Reconciliation of Present Value of Defined benefit obligation

Opening Balance at present value defined benefit obligation	xxx
+ Current service cost	xxx
+ Interest	xxx
- Benefit paid	(xxx)
+ Past service cost – vested	xxx
+ Past service cost – unvested	xxx
- Curtailment	(xxx)
± Actuarial gain/loss	xxx
Closing balance of defined benefit obligation	

at present value	xxx

(iii) Reconciliation of Plan Account

Opening balance of Plan Account	xxx
+ Contribution	xxx
- Benefit paid	(xxx)
+ Expected Return	xxx
± Actuary gain / loss	xxx
Closing Bal. Plan Account	xxx

(iv) Disclosure in Profit & Loss

Current Service cost	xxx
+ Interest Cost	xxx
+ Past Service Cost	xxx
+ Unrecognised past service cost	xxx
- Expected Return	(xxx)
± Actuary gain or loss on Plan account & Defined benefit obligation	xxx

(v) Disclosure in Balance Sheet

Present value of defined benefit obligation closing balance	xxx
(-) Plan asset closing balance	xxx
(-) Unrecognised past service closing balance	xxx
Net Liability	xxx

In case net liability is negative then this negative balance will be shown as advance.

Note :- As per para 59 amount can be shown only if realizable.

(vi) Return on plan amount

Expected return	xxx
+ Actuarial gain / loss	xxx
Actual Return	xxx

(vii) Detail of Plan amount, Actuarial amortization should be disclosed.

(iv) Other Long Term employee benefit (Accounting treatment is similar as post employment benefit)

Questions & Answers

Q.1. **A lump sum benefit, equal to 1% of final salary for each year of service, is payable on termination of service. The salary in year 1 is Rs. 10,000 and is assumed to increase at 7% (compound) each year resulting in Rs. 13,100 at the end of year 5. The discount rate used is 10% per annum. Show under the projected unit credit method the amount of obligation.**

Ans. :-

	Year	**1**	**2**	**3**	**4**	**5**
(a)	Benefit for prior year	0	131	263	393	524
(b)	1% of Final Salary of Current Year	131	131	131	131	131
	Total	**131**	**262**	**393**	**524**	**655**
Current period opening obligation		0	89	196	324	476
Interest @10%		0	9	20	33	48
Current year service cost		89	98	108	119	131
[P.V. of Final Salary at 10%]		[131 x .683]	[131 x .751]	[131 x .826]	[131 x .900]	[131 x 1]
Closing obligation		**89**	**196**	**324**	**476**	**655**

Q.2. **An enterprise operates a pension plan that provides a pension of 2% of final salary for each year of service. The benefits become vested after five years of service. On 1 January, 2007 the enterprise improves the pension to 2.5% of final salary for each year of service starting from 1 January, 2003. At the date of the improvement, the present value of the additional benefits for service from 1 January, 2003 to 1 January, 2007 is as follows :**

Employees with more than five years' service at 1.1.2007 (Benefit already vested)	**Rs. 150**
Employees with less than five years' service at 1.1.2007 (Average period until vesting : three years)	**Rs. 120**
	Rs. 270

Discuss the treatment of Employee benefit as per AS - 15.

Ans. :- The enterprise recognize 150 million immediately because these benefits are already vested. Enterprise should recognize 120 million on straight line basis over three year from 1st January 2007.

Q.3. **As on 1st April, 2008 the fair value of plan assets was Rs. 1,00,000 in respect of a pension plan of Zeleous Ltd. on 30th September, 2008 the plan paid out benefits of Rs. 19,000 and received inward contributions of Rs. 49,000. On 31st March, 2009 the fair value of plan assets was Rs. 1,50,000 and present value of the defined benefit obligation was Rs. 1,47,920. Actuarial losses on the obligation for the year 2008-09 were Rs. 600. On 1st April, 2008 the company made the following estimates, based on its market studies, understanding and prevailing prices.**

	%
Interest & dividend income, after tax payable by the fund	**9.25**
Realized & unrealized gains on plan assets (after tax)	**2.00**
Fund administrative costs	**1.00**
Expected Rate of Return	**10.25**

You are required to find the expected and actual returns on plan assets.

[Nov. 2009 - Old Course (4 marks)]

Ans. :-

(i) Calculation of expected return

Return on 1,00,000 held for 12 month [1,00,000 x 10.25%]	10,250.00
Return on 30,000 [49,000 - 19,000] for 6 month i.e.	
30,000 x 10.25% x ½	1,537.50
Total	**11,787.50**

(ii) Calculation of Actual Return

Fair value of plan assets at 31.3.2009	1,50,000
(+) Benefit paid	19,000
(-) Contribution received	(49,000)
(-) Opening Fair Value	(1,00,000)
Net	20,000

Q.4. An enterprise discontinues a business segment and employees of the discontinued segment will earn no further benefits. This is a curtailment without a settlement. Using current actuarial assumptions (including current market interest rates and other current market prices) immediately before the curtailment, the enterprise has a defined with a fair value of Rs. 820 an unrecognized past service cost of Rs. 50. The curtailment reduces the net present value of the obligation by Rs. 100 to Rs. 900.

Of the previously unrecognized past service cost, 10% relates to the part of the obligation that was eliminated trough the curtailment.

Show the effect of the curtailment.

Ans. :- **Statement showing impact of curtailment**

	Before curtailment	After curtailment	Impact
Net present value of obligation	1,000	900	(100)
Fair value of plan assets	(820)	(820)	---
Unrecognized past service cost	(50)	(45)	5
Net liabilities recognition in B/S	**130**	**35**	**(95)**

Q.5. R Ltd. agrees to make a gratuity payment to its only employee, Mr. B, at the time of Mr. B's retirement. This arrangement was begun on January 1, 2005, and Mr. B plans to retire at December 31, 2012, when his salary is expected to be Rs. 80,000 per year. Specific provisions of the gratuity plan are as follows :

(a) Originally, the plan called for a single payment of 10% of Mr. B's terminal salary (salary at retirement) per year of service rendered, beginning January1, 2005; effective January 1, 2007, this percentage was increased to 12%.

(b) The company's actuaries have determined market yield at the balance sheet date on Govt. bonds of 10%. An interest rate of 12% is expected to be earned on the assets invested in the plan asset.

(c) The net periodic defined benefit cost for each year is to be funded at the end of the year.

(d) The fair value of the assets in the plan at the beginning of the first three years is as follows :

2005	**Rs. NIL**
2006	**4,105**
2007	**11,000**

Calculate the current years service cost for 2005, 2006, 2007.

Ans. :-

(i) Calculation of Service Cost of 2005

(a) Gratuity payable [80,000 x 10%]	8,000
(b) P.V.F. @ 10% for 7 year as service cost is calculated a the end of 2005	51,316
(c) Current year service cost (a x b)	4,105

(ii) Calculation of Service Cost of 2006

(a) Gratuity Payable [80,000 x 10%]	8,000
(b) P.V.F. @ 10% for 6 year	56,447
(c) Total amount payable (a x b)	4,516
(d) Interest cost payable [4105 x 10%] Indicates beginning value of obligation	411
(e) Return on Plan assets [4105 x 12%]	(493)
Total	**4,434**

(iii) Calculation of Service cost for 2007

(a) Gratuity payable [80,000 x 10%]	8,000
(b) P.V.F. @ 10%	62,092
(c) Amount of obligation [a x b]	5,961
(d) Interest cost (WN 2)	1,084
(e) Return on plan assets [11,000 x 12%]	(1,320)
(f) Gain recognized [WN 3]	(1,968)
(g) Past service cost amortized [1806 / 6]	301
Closing at 2007	4,058

WN 1 : Since the rate has been increased from 10% to 12% hence retrospective effect shall be taken.

Obligation upon 2007 if interest rate is 12% [80,000 x .12 x 2 x .56447]	10,838
Already recognized [80,000 x .10 x 2 x .56447]	9,032
Not recognized	1806

WN 2 : Calculation of Interest Cost

[9032 x 1806] x 10% = 1084

WN 3 : Calculation of gain recognition

Fair value of plan assets	11,000
Expected value	(9,032)
Unrecognized gain	1,968

Q.6.

[Amount in Rs.]

A defined benefit plan has the following characteristics

Present value of the obligation	**1,100**
Fair value of plan assets	**1,190**
Unrecognized past service cost	**(70)**
Present value of available future refunds and reduction in future contributions	**90**

Calculate the amount to be recognized as assets in the balance sheet.

Ans. :- Statement showing calculation of amount to be recognized as assets

Determination of liability

P.V. of obligation	1100
Fair value of plan assets	(1190)
Negative	(90)

Since it is negative amount hence, the assets to be recognized is as follows :

Unrecognized past service cost	70
P.V. of available future refund and reduction in future contribution	90
	160

Since Rs. 90 is less than 160 hence asset shall be recognized at 90 and carrying amount of asset shall be reduced by 70.

Q.7. The following data apply to 'X' Ltd. defined benefit pension plan for the year ended 31.3.09, calculate the actual return on Plan assets :

- **Benefits Paid**	**2,00,000**
- **Employer contribution**	**2,80,000**
- **Fair market value of plan assets on 31.3.09**	**11,40,000**
- **Fair market value of plan asset as on 31.03.08**	**8,00,000**

[Nov., 2009 - New Course (4 marks)]

Ans. :-

Plan Asset Account

To Bal. b/d	8,00,000	By Bank	2,00,000
To Bank (contri.)	2,80,000	By Balance c/d	11,40,000
To Actual return	2,60,000		
	13,40,000		13,40,000

Q.8. A company reports the following information regarding pension plan assets. Calclate the fair value of plan assets.

	Amt. (Rs.)
Fair market value of plan assets (beginning of year)	**7,00,000**
Employer Contribution	**1,00,000**
Actual return on plan assets	**50,000**
Benefit payments to retires	**40,000**

Ans. :- Fair market value - Rs. 8,10,000.

Q.9. Induga Ltd. discontinues a business segment. Under the agreement with employee's union, the employees of the discontinued segment will earn no further benefit. This is a curtailment without settlement, because employees will continue to receive benefits for services rendered before discontinuance of the business segment. Curtailment reduces the gross obligation for various reasons including change in actuarial assumptions made before curtailment. In this, if the benefits re-determined based on the last pay drawn by employees, the gross obligation reduces after the curtailment because the last pay earlier assumed is no longer valid.

Assuming the following :

(a) Immediately before the curtailment, based on current actuarial assumption, the gross obligation was estimated at Rs. 2,000.

(b) The fair value of plan assets on the date was estimated at Rs. 1,700.

(c) The unamortized past service cost was Rs. 60.

(d) Curtailment reduces the obligation by Rs. 200, which is 10% of the gross obligation.

Induga Ltd. estimates the share of unamortized service cost that relates to the part of the obligation that is eliminated at 10% of Rs. 60 or at Rs. 6. Calculate the gain form curtailment.

Ans. :-Gain from curtailment Rs. 194.

Q.10. Omega Limited belongs to the engineering industry. The company received an actuarial valuation for the first time for its pension scheme which revealed a surplus of Rs. 6 lakhs. It wants to spread the same over the next 2 years by reducing the annual contribution to Rs. 2 lakhs instead of Rs. 5 lakhs. The average remaining life of the employees is estimated to be 6 years. You are required to advise the company on the following items from the viewpoint of finalization of accounts, taking note of the mandatory accounting standards.

Ans. :- According to AS 15 (Revised 2005) 'Employee Benefits', actuarial gains and losses should be recognized immediately in the statement of profit and loss as income or expense. Therefore, surplus amount of Rs. 6 lakhs is required to be credited to the profit and loss statement of the current year.

Q.11. Sports and Games Ltd., make an amendment to its pension plan on 31.3.2003. The following information is provided to you by the Chief Accountant.

	31.3.2003 Before Amendment	31.3.2003 After Amendment
Total Provision	5,75,000	9,00,000
Projected Obligation	8,33,000	11,23,000

What should be the amount to be charged to profit and loss account ?

What will be the amount to be amortized over future periods as a result of amendment ?

Ans. :- Amount to be charged to profit and loss is Rs. 2,58,000 (being the difference between projected obligation, and provision existing). The additional obligation of Rs. 2,90,000/- (11,23,000 - 8,33,000) should also be recognized immediately in Profit and Loss if the obligation as already vested on the employee.

Q.12. Jakarta Airlines has a post-retirement medical benefits scheme to its employees. As per the scheme, employees who have put in 20 years of service are eligible for post retirement medical benefit. There are 8000 employees on 31.3.2003 who were eligible for post-retirement benefit scheme. All the post-retirement medical expenses will be borne by the Company itself, as Company has not taken any post-retirement medical scheme from any insurance company. During the year, Company has actually paid Rs. 3 crores to retired employees as medical expenses. No provision for accrual liabilities of retirement medical expenses for the eligible 8000 employees has been made. Comment upon the accounting treatment whether it is in accordance with AS-15.

Ans. :-

The scheme introduced by the Company, is for post-retirement medical benefits.

If the predominant characteristics of these benefits are the same as those of PF, Superannuation, Pension, or Gratuity benefit, i.e., if such a retirement benefit is in the nature of either a defied benefit scheme, or a defined contribution scheme, as defined in the Standard, then, a provision for such a scheme should be made.

In the instant case, the "predominant characteristics" of the medical benefit scheme are in the with the benefit scheme covered by AS 15, and hence a suitable provision to cover the liabilities in respect of 8000 employees should be made.

Q.13. Devasthanams Ltd. makes a regular contribution of Rs. 18 lacs, under a defined benefit scheme. Actuarial valuation revealed a shortfall of Rs. 24 lacks. Remaining service lives of participating employees is 4 years. Applying the norms under AS 15, provide the proper accounting treatment for this situation. Also state the treatment, if an amount of Rs. 4 lacs included in the shortfall, were to relate to employees already retired.

Ans.:- An actuarially determined past service cost arises on the introduction of retirement benefit scheme for existing employees or on the making of improvements to an existing scheme etc. This cost gives the employees credit for benefit of services rendered before the occurrence of one or more of these events.

As per AS-15(R), the entire shortfall should be recognised immediately in Profit and Loss. The option of spread over (Corridor approach) as in IAS is not applicable.

Q.14. On December 31, 2010, an entity's balance sheet includes a pension liability of $1.2 million. Management has made the decision to adopt IAS 19 as of January 1, 2001, for the purpose of accounign for employee benefits. At that date, the present value of the obligation under IAS 19 is calculated at $14.6 million and the fair value of plan assets is determined at $11.0 million. On January 1, 1996, the entity had improved pension benefits (cost for nonvested benefits amounted to $1.6 million, and the average remaining period at that date, until vesting, was 8 years).

Ans. :- The transitional liability is calculated as follows :

	$'000
Present value of the obligation	1,46,000
Fair value of plan assets	(11,000)
Past service cost to be recognized in later periods (1.6 x 3/8)	(600)
Transitional liability	3000

Liability already recognized	1200
Increase in liability	1800

The entity might (in terms of the transitional provisions of IAS 19) choose to recognize the transitional liability of $1.8 million either immediately or recognize it as an expense on a straight-line basis upto 5 years. The choice is irrevocable. In future such transitional arrangements are dealt with by IFRS 1.

Q.15. A company has a scheme for payment of settlement allowance to retiring employees. Under the scheme, retiring employees are entitled to reimbursement of certain travel expenses for class they are entitled to as per company rule and to a lump-sum payment to cover expenses on food and stay. During the travel. Alternatively employees can claim a lump-sum amount equal to one month pay last drawn.

The company's contentions in this matter are :

(i) Settlement allowance does not depend upon the length of service of employee. It is restricted to employee's eligibility under the Travel rule of the company or where option for lump-sum payment is exercised, equal to the last pay drawn.

(ii) Since it is not related to the length of service of the employees, it is accounted for on claim basis.

State whether the contentions of the company are correct as per relevant Accounting Standard. Give reasons in support of your answer.

[Nov. 2008 (4 marks)]

Ans. :-

Contention (i) : The contention of the company is incorrect.

Although the allowance depends on the employee's eligibility under travel rule of the company or the last pay drawn, these in turn usually depend on the length of service. Therefore, there is an indirect dependency on the length of service.

Contention (ii) : The contention of the company is incorrect.

The said allowance falls in the category of post employment benefits – defined benefit plans as contemplated by AS-15 "Employee Benefits".

The standard requires an enterprise to measure the present value of defined benefit obligation and the current service cost using actuarial methods and account for the liability and expense accordingly.

However, if amount or provision so determined is not material, the company can follow some other method of accounting for settlement allowance.

Q.16. What are the types of Employees benefit and what is the objective of Introduction of this Standard i.e. AS-15 ?

[Nov. 2008 - New Syllabus (4 marks)]

Ans. :- Type of employee benefits :

(i) short-term employee benefits e.g. wages, salary, bonus payable within 12 months from end of period, medical care, housing etc.

(ii) post-employment benefits such as gratuity, pension, other retirement benefits

(iii) other long-term employee benefits such as profit-sharing bonuses, long-service leave, long-term disability benefits which are not payable wholly within 12 months from end of period.

(iv) termination benefits.

Objective of AS 15 :

The objective of this standard is to prescribe the accounting and disclosure for employee benefits. The standard requires an enterprise to recognise :

(i) a liability when an employee has provided service in exchange for employee benefits to be paid in the future; and

(ii) an expense when the enterprise consumes the economic benefit arising from service provided by an employee in exchange for employee benefits.

Q.17. The Company has entered into a wage agreement in May, 2008 whereby the labour union has accepted a revision in wage from June, 2007. The agreement provided that the hike till May, 2008 will not be paid to the employees but settled to them at the time of retirement. The company agrees to deposit the arrears in Government Bonds by September, 2008. The company seek your advise by finalising for the year ended 31st March, 2008.

[June. 2009 - Old Syllabus - 3 marks)]

Ans. :- This comes under the category of Termination benefits under AS-15. Such expense shouldbe recognized as an expense immediately. If amount falls due after 12 months from Balance Sheet date, it should discounted for the purpose of recognizing expense and corresponding liability.