

**ABC MARKETING
INCORPORATED**

**EMPLOYEES EARNED LEAVE SCHEME
MEASUREMENT REPORT**

**DISCLOSURE AS PER AS 15 (REVISED, 2005) - DEFINED
BENEFIT PLANS**

**FOR THE PERIOD ENDING
31-MAR-17**

SRINIVASAN NAGASUBRAMANIAN B.Sc., A.F.I.I., F.I.A.I., Dip. Manag.

Mem.No: 00144(1985)

25-APR-17



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2. PREAMBLE

ABC MARKETING INCORPORATED

(hereinafter called the "Company") has requested us to report on the financial position of the

employees Projected Benefits Plan relating to Leave Encashment Scheme (Called "the Plan")

Liabilities and ascertain the accounting expenses of it in accordance with AS 15 (Revised, 2005)

for the fiscal year/ period ending on 31-Mar-17

keeping in view the provisions of

- a) The Rules of the Scheme, salient features of which are given later
- b) AS15R issued by ICAI, Guidance Note issued by the Accounting Standard (ASB) of ICAI and as per Accounting Standards specified under Sec 133 of the Companies Act 2013 read with Rule 7 of the Companies (Accounts) Rules 2014
- c) Relevant Guidance Notes issued by the Institute of Actuaries of India which are currently in vogue

1.1 The results set out in this Report are based on our understanding of AS15 (Revised, 2005) and its application to the Plan. They have been evaluated for the specific requirements of AS 15 (Revised, 2005) and should not be put to any other use or purpose.

In particular this Report does not constitute a formal funding valuation of actuarial liabilities of the of the Scheme and does not present any recommendation of contributions or funding levels.

1.2 The results set out in this Report are based on our understanding of AS 15 (Revised, 2005) and its application to the Plan. They have been evaluated for the specific requirements of AS 15 (Revised, 2005) and should not be put to any other use or purpose.

In particular this Report does not constitute a formal funding valuation of actuarial liabilities of the of the Scheme and does not present any recommendation of contributions or funding levels.

1.3 This Report is delivered solely for the Company's own use and for the definite and specific purposes indicated above. Except where we expressly agree in black and white, it should not be divulged or delivered to any third party, other than as indicated below. In the absence of such consent and an express assumption of responsibility, no responsibility whatsoever is accepted by me for any consequences arising from any third party relying on this Report or any of his advice relating to its contents. The Company may give a copy of this Report available to its Auditors, in connection with the audit of its financial statements but I make no representation as to the suitability of this Report for any purpose other than that for which it was originally provided and accept no responsibility or liability to the company's Auditors in this regard. The Company should draw the provisions of this paragraph to attention of its auditors when passing the report to them.

3. EXECUTIVE SUMMARY

THE TABLE BELOW SHOWS A SUMMARY
OF THE KEY RESULTS FOR THE PERIOD ENDING
MARCH 31, 2017

DEFINED BENEFITS COST:	P&L CHARGE FOR PERIOD ENDING	31-Mar-17
1.CURRENT SERVICE COST		3,21,115
2.NET PERIODIC BENEFIT COST RECOGNISED IN P & L		2,80,777
		31-Mar-17
4.PRESENT VALUE OF DEFINED BENEFITS OBLIGATIONS(DBO)		15,01,829
	31-Mar-16	12,21,052
5.FAIR VALUE OF THE PLAN ASSETS (FVA)		0
		0
6.NET ASSETS/LIABILITIES RECOGNISED IN BALANCE SHEET		-15,01,829
		-12,21,052

Current Service Cost represents the cost associated with the current fiscal year benefit accruals. Total Employer expense is the expense under AS 15 (REVISED, 2005) inclusive of Current Service Cost and net interest.

2.2 Table 1 - Net Periodic Cost

Expense for the period ending	31-Mar-2017
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2.3 Table 2 - Analysis of Actuarial gain/loss

31-Mar-2017

2.4 Table 3 - The Net Asset/ (Liability)

Recognized in the Balance Sheet as at	31-Mar-2017
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2.5 Table 4 - The Reconciliation of PV of Obligation & FV of Plan Assets - Period Ending

31-Mar-2017

2.6 Table 5 - The reconciliation of Net Asset/ Liability

Recognized in the Balance Sheet over	31-Mar-2017
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4. SOURCES OF INFORMATION

- 4.1 The calculations have been based on the membership information for the Plan as supplied by the Company as at
- 4.2 In preparing this Report I have relied on the completeness and accuracy of the Data and Information supplied to me and corroborated orally and/or in writing by or on behalf of the Company and its advisers. I have not completed any detailed validation checks on the information provided. I have, however, carried out broad statistical checks for consistency
- 4.3 In particular I would like to mention that the details of Information on Assets, Plan provisions, Contributions and Benefits Payments, employee membership data and movements thereon from start of the period of investigations to the end of the period have been taken as provided by the company
- 4.4 The discount rate as on the valuation date is based on the yields on Gilts (Government of India bonds) as published by the Reserve Bank of India, and the long term risk free rate available on the valuation date and of a term that matches the term of the liability and applicable to the period over which the obligation is to be settled.
- 4.5 The fair value of the Assets on the valuation date has been taken to be as provided by the Company for self-invested funds and as provided by the insurers for managed funds.
- 4.6 A summary of the employee profile is given in **Appendix A**

5.FULL PLAN INFORMATION:

This valuation reflects the provisions of the plan as at valuation date. Following is a summary of the major plan provisions used to determine the plan's financial position; It should not be used to determine individual plan benefits.

VALUATION DATE	31-MAR-17
SPONSORING EMPLOYER	ABC MARKETING INCORPORATED
TYPE OF PLAN	DEFINED BENEFITS
COVERING	EMPLOYEES EARNED LEAVE SCHEME
ELIGIBILITY	ALL REGULAR EMPLOYEES
VESTING CRITERIA	
ON RETIREMENT	NO VESTING CRITERIA
ON LEAVING SERVICE	NO VESTING CRITERIA
ON DEATH	NO VESTING CRITERIA
EMPLOYER CONTRIBUTION	NIL
EMPLOYEE CONTRIBUTIONS	NIL
SALARY FOR ENCASHMENT	LAST DRAWN BASIC+DA
SALARY FOR AVAILMENT	CTC BASIS
BENEFIT BASIS	ACCRUED BENEFITS
BENEFIT TYPES	
ENCASHMENT IN SERVICE	NO
ENCASHMENT ON SEPARATION	YES
AVAILMENT IN SERVICE	YES
AVAILMENT AT SEPARATION	YES
NORMAL RETIREMENT BENEFIT	"APPLICABLE SALARY"X"LEAVE CREDIT"X1 /30
EARLY RETIREMENT BENEFIT	SAME AS ABOVE
DEATH BENEFIT	SAME AS ABOVE
APPLICABLE LIMITS	
COMPULSORY AVAILMENT PER YEAR	NO
ENCASHMENT IN SERVICE PER YEAR	
MIN	0
MAX	0
MAXIMUM CARRY FORWARD PER YEAR	30
MAXIMUM ACCUMULATION IN SERVICE	300
MAXIMUM LIMITS ON BENEFITS	
FOR AVAILMENT ON SEPARATION	300
FOR ENCASHMENT ON SEPARATION	300
SPECIAL CONDITIONS	
EARNED RATE PER YEAR	30
BASIS	CALENDAR YR
DATE OF CREDIT	1 JAN
EXCESS OVER MAX ACCUMULATION	ENCASH
NORMAL RETIREMENT AGE	60

6. SIGNIFICANT EVENTS DURING THE YEAR

	FROM 31-MAR-16 To 31-MAR-17
VALUATION PERIOD	STATUS
NAME OF EVENT	THERE IS NO PLAN INTRODUCTION OR CHANGES IN PROVISIONS DURING THIS PERIOD
PLAN PROVISIONS	THERE IS NO BUSINESS COMBINATION DURING THIS PERIOD
BUSINESS COMBINATION	THERE IS NO DIVESTURE DURING THE PERIOD
DIVESTURE	THERE IS NO ACQUISITION DURING THE PERIOD
ACQUISITIONS	THERE IS NO TRANSFER DURING THE PERIOD
TRANSFER	THERE IS NO PLAN CURTAILMENT DURING THE PERIOD
CURTAILMENT	THERE IS NO PLAN SETTLEMENT DURING THE PERIOD
PLAN SETTLEMENT	THERE IS NO PLAN COMBINATION DURING THE PERIOD
PLAN COMBINATION	THERE IS NO PLAN DIVISION DURING THE PERIOD
PLAN DIVISION	THERE IS NO SPECIAL TERMINATION DURING THE PERIOD
SPECIAL TERMINATION	A UNFUNDED LEAVE PLAN
LIABILITY FUNDING	NO SEPARATE ASSETS MAINTAINED
FUNDING METHODOLOGY	PAY AS YOU GO METHOD USED FOR LEAVE SETTLEMENT
BENEFITS PAYMENTS	THERE IS DECREASE IN AVERAGE SALARY DURING THE PERIOD
SALARIES INCREASE	THE AVERAGE SALARY DECREASED BY-50.19%- DURING THE PERIOD
PERCENTAGE INCREASE IN SALARIES	THERE IS SIGNIFICANT INCREASE IN EMPLOYEE COUNT DURING THE PERIOD
EMPLOYEE COUNT	THE EMPLOYEE COUNT INCREASED BY-375%- DURING THE PERIOD
PERCENTAGE INCREASE IN EMPLOYEE COUNT	THERE IS SIGNIFICANT INCREASE DURING THE PERIOD
LEAVE COUNT	THE LEAVE COUNT INCREASED BY - 26.62% - DURING THE PERIOD
PERCENTAGE INCREASE IN LEAVE COUNT	
POST VALUATION DATE	WE HAVE NOT BEEN NOTIFIED BY THE COMPANY NOR ARE WE AWARE OF ANY EVENTS SUBSEQUENT TO THE VALUATION DATE WHICH IN OUR OPINION WOULD HAVE MATERIAL IMPACT ON THE RESULTS OF THE VALUATION.

7. ACTUARIAL CERTIFICATION

- 5.1 The assumptions and methodology used in compiling this Report are consistent with our understanding of AS 15 (REVISED, 2005). Our calculations follow the company's accounting policy of immediate recognition of gains and losses in the Present Value of Defined Benefits Obligation or the Fair Value of the Plan Assets
- 5.2 The benefits valued in this Report are summarised in **Appendix B**
- 5.3 The results are particularly sensitive to some assumptions, such as the discount rate, level of salary inflation, level of assumed price inflation and mortality. A decrease in the discount rate assumed or an increase in salary inflation will lead to an increase in reported cost
- 5.4 The total defined benefit obligation is inclusive of short term benefits. The amount provided for short term benefits is on an undiscounted basis and based on per day CTC / basic salary depending on the estimated leave availment / encashment during next one year
- 5.5 The key assumptions used in the valuations are set out in **Appendix C**
- 5.6 The amounts for last four periods are set out in **Appendix D**
- 5.7 The assets distribution is set out in **Appendix E**
- 5.8 The methodology used in the calculations is set out in Appendix F
- 5.9 The Items pertaining to Revised Schedule III of Companies Act, 2013 is in Table 3.A
- 5.10 Based on membership data and plan information provided to me as on 31-Mar-17
- I have made full actuarial valuations as at the end of this date
- 5.11 The full results of my calculations are set out in Tables 1 to 5
- 5.12 I would be pleased to discuss this Report with you
- Yours faithfully,



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Fellow of the Institute
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Srinivasan Nagasubramanian, Mem No: 00144 (1985).
Fellow of the Institute of Actuaries of India.
30 April 2017

**AMOUNT TO BE RECOGNISED IN PROFIT / LOSS ACCOUNT
NET PERIODIC BENEFIT COST RECOGNISED**

AS 15 Para 120 (g) (i) to (viii)

**TABLE 1
ABC MARKETING INCORPORATED**

EMPLOYEES EARNED LEAVE SCHEME

Actuarial measurements for AS 15 (Revised, 2005) purposes

Disclosure of employer expense for the period ending

31-Mar-17

Local currency -

Rupees

Expense Recognised In Income Statement

The following table summarises the components of net benefit expenses recognised in the Profit / Loss Account

A Components of Employer expense			
Service Cost		31-Mar-16	31-Mar-17
1	Current service Cost	1,21,569	3,21,115
2	Past service cost	0	0
3	Curtailement Cost/(Credit)	0	0
4	Settlement Cost/(Credit)	0	0
5	Total Service Cost	1,21,569	3,21,115
Net Interest Cost			
6	Interest Expense on DBO	90,643	94,143
7	Interest (Income on Plan Asset)	0	0
8	Interest (income)on reimbursement rights	0	0
9	Interest expense on effect of (asset ceiling)	0	0
10	Total Net Interest	90,643	94,143
11	Immediate Recognition of (Gain)/Losses	-1,66,821	-1,34,481
12	Cost of Termination Benefits	0	0
13	Administrative Expenses and Taxes	0	0
14	Defined Benefits cost included in P&L	45,391	2,80,777
Assumption on		31-Mar-17	
Discount rate as per market yields on Government bonds as at valuation date			
		7.34%	

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ANALYSIS OF ACTUARIAL (GAIN)/LOSS

AS PER DISCLOSURE ITEM 120 (n) (ii)

TABLE 2

ABC MARKETING INCORPORATED

EMPLOYEES EARNED LEAVE SCHEME

Net Asset/(Liability) Recognised in Balance Sheet on-

31-Mar-17

Local currency -

Rupees

The following Table gives the Funded Status and the amount recognised in the Balance Sheet for the Plan

A Net Asset/(Liability) Recognised in Balance Sheet –		31-Mar-16	31-Mar-17
1	Actuarial (Gain) / Losses due to Demographic Assumption changes in DBO	0	0
2	Actuarial (Gain) / Losses due to Financial Assumption changes in DBO	5,635	37,701
3	Actuarial (Gain)/ Losses due to Experience on DBO	-1,72,456	-1,72,182
4	Return on Plan Assets (Greater) / Less than Discount rate	0	0
5	Return on reimbursement rights (excluding interest income)	0	0
6	Changes in asset ceiling /onerous liability (excluding interest Income)	0	0
7	Total actuarial (gain)/loss	-1,66,821	-1,34,481
	Discount rate		
	7.34%		

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AMOUNTS TO BE RECOGNISED IN BALANCE SHEET
DETAILS OF PROVISION FOR LEAVE

As 15 Para 120 (f) (i) to (iv)

TABLE 3

ABC MARKETING INCORPORATED

EMPLOYEES EARNED LEAVE SCHEME

Actuarial measurements for AS15 (Revised, 2005) purposes

Net Asset/(Liability) Recognised in Balance Sheet on-

31-Mar-17

Local currency -

Rupees

The following Table gives the Funded Status and the amount recognised in the Balance Sheet for the Plan

A Net Asset/(Liability) Recognised in Balance Sheet –		31-Mar-16	31-Mar-17
1	Present value of Funded Obligation	0	0
2	Fair Value of Plan Assets	0	0
3	Present value of Unfunded obligation	12,21,052	15,01,829
5	Funded status [Surplus/(Deficit)]	-12,21,052	-15,01,829
6	Unrecognised Past Service Costs	0	0
7	Amount not Recognised as an Asset (limit in Para 59(b))	0	0
8	Net Liability	-12,21,052	-15,01,829
9	Recognised in balance sheet	-12,21,052	-15,01,829
10	Present value of Encashment Obligation		13,89,671
11	Present value of Availment Obligation		1,12,158
Assumption on 31-Mar-17			
Discount rate as per Para 78 of AS15(R 2005)			7.34%

DETAILS OF CURRENT AND NON CURRENT PROVISION FOR LEAVE

As PER Schedule 3 of Companies Act 2013

TABLE 3 A

ABC MARKETING INCORPORATED

EMPLOYEES EARNED LEAVE SCHEME

Actuarial measurements for AS15 (Revised, 2005) purposes

Net Asset/(Liability) Recognised in Balance Sheet on-

31-Mar-17

Local currency -

31-Mar-17

The following Table gives Current and Noncurrent for the PVO and the Funded Status

A Net Asset/(Liability) Recognised in Balance Sheet –		Current	Non Current
1	Present value of Benefit Obligation	1,28,569	13,73,260
2	Funded status [Surplus/(Deficit)]	1,28,569	13,73,260
	For funded schemes as per ICAI circular page no 18 (See commentary)		

**CHANGES IN PRESENT VALUE OF DEFINED BENEFIT
OBLIGATION AND RECONCILIATION THEREOF**

AS 15 Para 120(c) (i) to (x)

TABLE 4

ABC MARKETING INCORPORATED

EMPLOYEES EARNED LEAVE SCHEME

Actuarial measurements for AS 15 (Revised, 2005) purposes

A		31-Mar-17	
Change in Obligation over the period ending on		31-Mar-16	31-Mar-17
Local currency - Rupees			
1	Present Value of Defined Benefits	11,75,661	12,21,052
	Obligation At Beginning(Opening)		
2	Current Service Cost	1,21,569	3,21,115
3	Interest Cost	90,643	94,143
4	Plan Amendments	0	0
5	Prior Service Costs	0	0
6	Curtailments		0
7	Settlements		0
8	Actuarial (Gains)/Loss	-1,66,821	-1,34,481
9	Benefits Paid	0	0
10	Acquisitions/Divestures		0
11	Present Value Of Defined Benefits	12,21,052	15,01,829
	Obligation At the end (Closing)	-	
B RECONCILIATION OF OPENING & CLOSING VALUES OF PLAN ASSETS			
AS15 Para 120(e) (i) to (viii)			
1	Fair Value of Plan Assets	0	0
	at the beginning(Opening)		
2	Expected Return on Assets	0	0
3	Employer Contribution	0	0
4	Plan Participants Contributions	0	0
6	Settlements By Fund Manager	0	0
7	Benefits Pay-outs	0	0
8	Actuarial gain/(Loss)	0	0
9	Fair Value of assets at the End	0	0
10	Actual Return on Plan Assets	0	0

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RECONCILIATION OF BALANCESHEET ITEMS

TABLE 5
ABC MARKETING INCORPORATED

EMPLOYEES EARNED LEAVE SCHEME

Actuarial measurements for AS15 (Revised, 2005) purposes

Reconciliation of Net Asset/(Liability) Recognised in Balance Sheet

For the period ending on

31-Mar-17

Local currency - Rupees

A Net Asset/(Liability) Recognised in Balance Sheet –		31-Mar-16	31-Mar-17
1	Net Asset/(Liability) Recognised at the beginning of the period	-11,75,661	-12,21,052
2	Employer expense	-45,391	-2,80,777
3	Employer Contribution	0	0
4	Acquisitions/Divestures	0	0
	Effect of the Limit in Para 59(b)		0
5	Net Asset/(Liability) Recognised at the end of the period	-12,21,052	-15,01,829
			-

APPENDIX A

SUMMARY OF EMPLOYEE PROFILE

A.1 Active Members:

TABLE A			
ABC MARKETING INCORPORATED			
ACTIVE MEMBERS			
EMPLOYEES EARNED LEAVE SCHEME			
AS AT		31-Mar-16	31-Mar-17
1	Number of Employees	4	19
2	Total Leave(Earned)	973	1,232
3	Total CTC	2,24,910	5,32,535
4	Total Monthly salaries	1,79,928	4,25,739
5	Average Monthly Salaries	44,982	22,407
6	Average CTC	56,227.50	28,028.16
7	Average Age	54.00	40.37
8	Average past service	8.50	2.32
9	Term of Liability	5.67	17.49
10	Discontinuance Leave Value	15,02,057	18,54,285

APPENDIX B

KEY ASSUMPTIONS

One of the principal assumptions is the discount rate, which should be based upon the market yields available on Government bonds at the accounting date with a term that matches that of the liabilities. (Para 78 of AS15R)

The financial and demographic assumptions employed for the calculations as at the end of previous period and current period are as follows

Assumption	31-Mar-16	31-Mar-17
Discount rate (P78 of AS15R)	7.71%	7.34%
Expected return on assets (P107-109 AS15R)	0.00%	0.00%
Salary Escalation (Para83-91 and 120(I) AS15R)	4.00%	4%F5Y &4%TA
Attrition Rate	1.00%	1.00%
Leave Accounting & Consumption Technique	LIFO	
Proportion of Leave Availment	5.00%	
Proportion of encashment in service/Lapse	0.00%	
Proportion of encashment on separation	95.00%	
Mortality	Indian Assured Lives Mortality(2006-08) Ultimate	

a sample pick from this table as below

Age	Mortality
20	0.0008875
30	0.001056
35	0.001282

Disability:

Vide Demographic Assumptions

Notes

- 1.All the assumptions have been set following discussions with the company in this regard
- 2.We understand that the assumption of future salary increases (which has been set in consultation with the company), take account of inflation, seniority, promotion and other relevant factors, such as supply and demand in the employment market

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**MAJOR CATEGORIES OF PLAN ASSET
AS A PERCENTAGE OF THE FAIR VALUE**

As15 Para 120(h)

**APPENDIX C
ABC MARKETING INCORPORATED**

EMPLOYEES EARNED LEAVE SCHEME

ASSETS DISTRIBUTION

A		AS AT	31-Mar-16	31-Mar-17
PERCENTAGES				
1	Govt Securities(Central & State)		0.00%	0.00%
2	Highquality Corporate Bonds		0.00%	0.00%
3	Equity shares of Listed Cos		0.00%	0.00%
4	Property		0.00%	0.00%
5	Special deposits		0.00%	0.00%
6	Others(PSU)		0.00%	0.00%
7	Assets Under Insurance Schemes		0.00%	0.00%
8	Total		0.00%	0.00%

The overall expected rate of return on assets is determined based on the market prices prevailing on that date, applicable to the period over which the obligation is to be settled. There has been significant change in expected rate of return on assets due to the improved stock market scenario. [AS15 Para 120(j)]

AMOUNTS FOR CURRENT & PREVIOUS FOUR PERIODS

AS PER PARA 120(N)				
APPENDIX D				
ABC MARKETING INCORPORATED				
EMPLOYEES EARNED LEAVE SCHEME				
	31-Mar-14	31-Mar-15	31-Mar-16	31-Mar-17
1	Defined benefits Obligation			
	0	11,75,661	12,21,052	15,01,829
2	Plan assets			
	0	0	0	0
3	Surplus /Deficits			
	0	-11,75,661	-12,21,052	-15,01,829
4	Experience Adjustments on Plan Liabilities			
	0	0	-1,72,456	-1,72,182
5	Experience Adjustments on Plan Assets			
	0	0	0	0
	Para 142A as inserted in Notified AS15 by Companies (Accounting Standards) Amendment Rules 2009 states that an enterprise may disclose the amounts required by paragraph 120(n) as the amounts are determined for each accounting period prospectively from the date the enterprise first adopts this standard.			

APPENDIX E

ACTUARIAL ASSUMPTIONS:

I have used actuarial assumptions selected by the Company. Any Changes in actuarial assumptions, methods or plan provisions since the prior valuations are described in this report. The assumptions used in compiling this report are consistent with the requirements of AS 15 (Revised, 2005). The company was advised on assumptions as per the requirements under AS15 (Revised, 2005).

DEMOGRAPHIC ASSUMPTIONS:

THE FOLLOWING DEMOGRAPHIC ASSUMPTIONS WERE USED IN VALUING THE LIABILITIES AND BENEFITS UNDER THE PLAN.

MORTALITY:	INDIAN ASSURED LIVES MORTALITY (2006-08)	
	ULTIMATE	
DISABILITY:	5% OF MORTALITY RATE RATES	
WITHDRAWAL:	1.00%	
RETIREMENT AGE:	60	NIL

TABLE OF SAMPLE RATES

Mortality			Disability	
Male	Female	Age	Male	Female
0.0848%	0.0848%	20	0.0042%	0.0042%
0.0984%	0.0984%	25	0.0049%	0.0049%
0.1056%	0.1056%	30	0.0053%	0.0053%
0.1282%	0.1282%	35	0.0064%	0.0064%
0.1803%	0.1803%	40	0.0090%	0.0090%
0.2874%	0.2874%	45	0.0144%	0.0144%
0.4946%	0.4946%	50	0.0247%	0.0247%
0.7888%	0.7888%	55	0.0394%	0.0394%
1.1534%	1.1534%	60	0.0577%	0.0577%

Sample Rates Continued...				
Mortality			Disability	
Male	Female	Age	Male	Female
1.7009%	1.7009%	65	0.0850%	0.0850%
2.5855%	2.5855%	70	0.1293%	0.1293%
3.9637%	3.9637%	75	0.1982%	0.1982%
6.0558%	6.0558%	80	0.3028%	0.3028%
9.1982%	9.1982%	85	0.4599%	0.4599%
13.8895%	13.8895%	90	0.6945%	0.6945%
20.8585%	20.8585%	95	1.0429%	1.0429%
31.1628%	31.1628%	100	1.5581%	1.5581%
Withdrawal		Age	Retirement	
Male	Female			
1%	1%	20	0%	0%
1%	1%	25	0%	0%
1%	1%	30	0%	0%
1%	1%	35	0%	0%
1%	1%	40	0%	0%
1%	1%	45	0%	0%
1%	1%	50	0%	0%
1%	1%	55	0%	0%
0%	0%	60	100%	100%
0%	0%	65	100%	100%
0%	0%	70	100%	100%
0%	0%	75	100%	100%
0%	0%	80	100%	100%
0%	0%	85	100%	100%
0%	0%	90	100%	100%
0%	0%	95	100%	100%
0%	0%	100	100%	100%

APPENDIX E: THE METHODOLOGY

Benefits obligations are estimated using the projected Unit Credit method. Under this method each participant's benefits under the plan are attributed to years of service, taking into consideration future salary increase and the plan's benefit allocation formula.

If an employee's service in later years will lead to a materially higher level of benefit than in earlier years, these benefits are attributed on a straight-line basis. A description of the calculation follows:

- An individual's estimated attributed benefits for valuation purposes related to a particular separation date (e.g. expected date of retirement, leaving service or death) is the benefit described under the plan based on credited service as at the measurement date, but determined using the projected salary that would be used in the calculation estimate of the benefit on the expected separation date.
- The benefit attributed to an individual's service during a plan year is the excess of the attributed benefit for valuation purposes at the end of the plan year over the attributed benefit for valuation purposes at the beginning of the plan year. Both attributed benefits are estimated from the same projections to the various anticipated separation dates.
- An individual's estimated benefit obligation is the present value of the attributed benefit for valuation purposes at the beginning of the year, and the service cost is the present value of the benefit attributed to the year of service in the plan year. If multiple decrements are used, the benefit obligation and the service cost for an individual are the sum of the component benefit obligations and service costs associated with the various anticipated separation dates. Such benefit obligations and service costs reflect the estimated attributed benefits and the probability of the individual separating on those dates.

In all cases, the benefit obligation is the total present value of the individual's attributed benefits for valuation purposes at the measurement date, and the service cost is the total present value of the individual's benefits attributable to service during the year. If multiple decrements are used, the present values take into account the probability of the individual leaving employment at the various anticipated separation dates.

APPENDIX F: COMMENTARY

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1. Description of Plan Characteristics and Associated Risks:

The Leave scheme is a final salary defined benefit plan, that provides for a lump sum payment at the time of separation based on scheme rules. The benefits are calculated on the basis of last drawn salary and the period of service at the time of separation and paid as lumpsum.

The design entails the following risks that affect the liabilities and cash flows,

1. Interest Rate Risk : The Defined Benefit Obligation calculated uses a discount rate based on government bonds. If bond yields fall, the defined benefit obligation will tend to increase.
2. Salary Inflation Risk: Higher than expected increases in salary will increase the defined benefit obligation.
3. Demographic Risks: This is the risk of volatility of results due to unexpected nature of decrements that include mortality, attrition, disability and retirement. The effects of these decrement on the DBO depends upon the combination salary increase, discount rate, and vesting criteria and therefore not very straight forward. It is important not to overstate withdrawal rates, because the cost of retirement benefit of a short carrier employee will be less compared to long service employee.

2. Description of funding arrangements and policies

While the payment of gratuity is statutory and provided by the Gratuity Act, there are no statutory minimum funding requirement for gratuity plans in India. However the companies can setup a separate irrevocable trust and start funding for the gratuity liability and avail of tax exemption under the income tax act by this security of gratuity benefits to the employees is ensure.

3. ON ASSUMPTIONS:

To prepare this report, actuarial assumptions as agreed by the Company, are used to select a single scenario from the range of possibilities. The results of that single scenario are included in this report. However, the future is uncertain and the plan's actual experience will differ from those assumptions; these differences may be significant or material. In addition, different assumptions or scenarios may also be within the reasonable range and results based on those assumptions would be different. Actuarial assumptions may also be changed from one valuation to the next because of mandated requirements, plan experience, changes in expectations about the future and other factors.

The effects of Morbidity and Withdrawals (Attrition) have been factored by constructing multiple decrement table on assumption of Mortality Table

Basis of Valuation:

All costs, liabilities and other factors under the plan were determined in accordance with generally accepted actuarial principles and procedures.

Valuation Formula:

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Consider an employee at 31 Mar 16 to be aged x Years
 with Leave Count upto 31 Mar 16 - $LC(x:31/03/16)$
 with Salary at 31 Mar 16 - $SAL(x:31/03/16)$

Accordingly Leave Encashment payable to this employee would be computed as

$$\text{Leave Encash}(x) = LC \times SAL(x:31/03/16) \times x/30.$$

Accordingly if he leaves ' t ' years from now, then Leave Encashment arising out of his Leave count up to now would be increased due to salary escalation during these ' t ' years. Accordingly Leave Encashment payable would be

$$\text{Leave Encash}(x+t) = LC \times SAL(x:31/03/16) \times (1+j)^t/30$$

when j is the rate of increase of salary per year

This Leave Encashment will be payable if he dies in service in year t .

$$\text{Probable Leave Encashment on death} = \text{Leave Encash}(x+t) \times \text{Probability of dying during age } x+t$$

Present value of Leave Encash payable on death during age $x+t$ will be arrived by discounting at rate i for t years.

Accordingly

$$\begin{aligned} V\text{Leave Encash}(x+t) &= \text{Leave Encash}(x+t) \times \text{probability of dying during age } x+t/(1+i)^t \\ &= \text{Leave Encash}(x+t) \times \text{death factor at age } x+t/(1+i)^t \end{aligned}$$

where i is the discounting rate,

Where Death

$$\text{factor} = \text{Number people dying during age } x+t \text{ to } X+t+1 / \text{number at age } X+t.$$

Leave Encash payable on withdrawal and retirement is similarly worked out.

Accordingly present value of Leave Encash payable at age x if one separates during age $x+t$ is

$$V\text{Leave Encash}(x+t) = \text{Leave Encash}(x+t) \times \{\text{Death Factor} + \text{withdrawal Factor} + \text{Retirement Factor}\}/(1+i)^t$$

Aggregate of $V\text{Leave Encash}(x+t)$ for ages from x till Retirement Age is therefore, present value of Leave Encash payable to that individual - this is expressed as $V(x)$.

Aggregate of $V(x)$ for all individual constitutes the Leave Encashment liability of the Company.

Accounting Principles:

The benefit expense for the year is made up of:

- the cost of the additional benefits that members accrue during the year based on projected salaries at retirement or earlier termination (current service cost);
- plus interest on the defined benefit obligation (interest cost);
- less the expected return on the assets held by the plan (expected return on plan assets);
- plus or minus the amount required to recognise actuarial losses or gains in accordance with the Company's accounting policy.

The amount recognized as a net gratuity/pension liability / (asset) in the company balance sheet is:

- the deficit (surplus) in the plan at the balance sheet date
- The amount falling due in the next one year

Current & Non –Current Liabilities.

Regarding funded post-employment benefit obligations, amount due for payment to the fund created for this purpose within twelve months is treated as “current” liability. This is as per Institute of Chartered Accountants circular date December 2011.Guidance Note on the revised schedule 3 of the companies Act, 2013. Page 18, Sec 7.3.C reproduced below

“Regarding funded post-employment benefit obligations, amount due for payment to the fund created for this purpose within twelve months is treated as “current” liability. Regarding the unfunded post-employment benefit obligations, a company will have settlement obligation at the balance sheet date or within twelve months for employees such as those who have already resigned or are expected to resign (which is factored for actuarial valuation) or are due for retirement within the next twelve months from the balance sheet date. Thus, the amount of obligation attributable to these employees is a “current” liability. The remaining amount attributable to other employees, who are likely to continue in the services for more than a year, is classified as “non-current” liability. Normally the actuary should determine the amount of current & non - current liability. Normally the actuary should determine the amount of current & non- current liability for unfunded post-employment benefit obligation based on the definition of current and Non- current assets and liabilities in the Revised schedule 3.

.....This is shown in our table 3A under Funded status, row No2. Regarding the unfunded postemployment benefit obligations, a company will have settlement obligation at the Balance Sheet date or within twelve months for employees such as those who have already resigned or are expected to resign (which is factored for actuarial valuation) or are due for retirement within the next twelve months from the Balance Sheet date. Thus, the amount of obligation attributable to these employees is a current Liability. This is shown under Line 1 of Table 3A

Decrement adjusted future service :

The Actual future service depends upon the average age of the employees and retirement age. If the average age is 30 and retirement age is 58 then the future service will be 28 yrs. However the expected future service of a given group of employees will be lesser because of attrition, as people leave the company every year. The effective future service will substantially come down because of attrition and effect of mortality. For example if attrition rate is 10% per annum the effective future service will be less than 10.The decrement adjusted future service is the effective future service being the effect of attrition, mortality, retirement age, and average age.

The Thomson Reuters sample benchmark rates for Indian gilts at 1215 IST (0645 GMT) Thursday follow:

Tenor	Price	Yield
	Range	Range
1 Y	100.40/44	7.078/7.037

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5 Y	102.30/32	7.524/7.519
10 Y	100.87/89	7.460/7.458
12 Y	103.38/49	7.827/7.813
15 Y	110.30/70	7.987/7.943
24 Y	103.18/38	7.999/7.981
30 Y	102.35/45	7.921/7.912

Discontinuance Leave :

Discontinuance liability is the amount that would be payable to the employees if all the obligation were to be settled immediately. It has been calculated based on salary used for valuing leave encashment.

APPENDIX G GLOSSARY

Actuarial Accrued Liability. The portion of the present value of prospective benefits allocated to service before the valuation date in accordance with the actuarial cost method.

Actuarial Cost Method. Sometimes called “funding method,” a particular technique used by actuaries for establishing the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortisation of the unfunded actuarial accrued liability.

Actuarial Gain or Loss. The actuarial loss is the excess of the plan’s unfunded actuarial accrued liability on the valuation date over the unfunded actuarial accrued liability that would have resulted had all of the actuarial assumptions been realised. If the actuarial loss is less than zero, it is called an actuarial gain. From one plan year to next, if the experience of the plan differs from that anticipated using the actuarial assumptions, an actuarial gain or loss occurs. For example, an actuarial gain would occur if the plan assets earned 12% for the year while the assumed rate of return used in the valuation was 8%. Other causes of actuarial gains or losses would include changes in actuarial assumptions and / or demographic changes in the population profile.

Actuarial Present Value. The current worth (on the valuation date) of an amount or series of amounts payable or receivable in the future. The actuarial present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Adjustment for limit on net asset. A reduction of the net asset that may be necessary in situations where the company is unable to recover a surplus of the plan either through reduced contributions in the future or through refunds from the plan.

Balance Sheet Asset/(Liability) The sponsor's balance sheet asset/(liability) entry, the Net recognized amount, is the sum of the cumulative excess of contributions to the plan over net Annual Expense and other plan-related charges to income due either to business combination or accelerated recognition. The difference between this account and the Funded Status is the un-recognized net loss/(gain) unvested prior service costs [and net transition obligation.]

Current Service Cost.(component of expense). The actuarial present value of benefits attributed by the gratuity/pension benefit formula to services rendered by employees during that period based on assumptions as to future compensation levels. The interest rate used in determining the present value is the discount rate.

Curtailment. An event that significantly reduces the expected years of future service of present employees or eliminates for a significant number of employees the accrual of defined benefits for some or all of their future services.

Deficit or surplus. The excess of the present value of the obligation over plan assets.

Discount Rate. Also referred to as the “settlement rate,” the discount rate represents the employer’s estimate (as of the valuation date) of the interest rate at which pension benefits could be effectively settled. Assumed discount rates are used in the measurement of the present value of the obligation.

Expected Return on Assets. The expected return on plan assets over the accounting period, based on an assumed rate of return

Expected Long-Term Rate of Return on Plan Assets. An assumption as to the rate of return on plan assets reflecting the average rate of earnings expected on the funds invested or to be invested to provide for the benefits included in the projected benefit obligation. This assumption is used to determine the expected return on assets for purposes of AS 15 pension expense.

Expense recognized in balance sheet. The amount recognised in an employer’s financial statements as the cost of a pension plan for a period, pursuant to AS 15. Components of expense are current service cost, interest cost, expected return on plan assets, amortisation of unrecognised past service cost, amortisation of the unrecognised transition amount, amortisation of gains and losses, along with settlement and curtailment charges (if any).

Fair value of plan assets. The assets out of which the obligations have to be settled, measured at their market value.

Funded Status. This is the excess/(shortfall) of the fair value of plan assets over the Plan Liability.

Interest Cost(component of net periodic Gratuity/Pension cost). The increase in the present value of obligation due to passage of time or The increase in the Plan liability over the accounting period due to interest (the time value of money)

Net Periodic Benefit Cost. This is the profit and loss charge for the accounting period, under AS15 ASC 715-30 and comprises the sum of the service and net interest costs, plus amortized actuarial gain /Loss.

Past Service Cost. Plan amendments often include provisions that grant increased benefits based on services rendered in prior periods. These provisions give rise to past service costs.

Plan Liability. This quantity is the discounted present value of all benefits attributed by the plan's benefit formula to service rendered prior to the measurement date. It is measured using an assumption as to future pay levels.

Present Value. Sometimes called “actuarial present value,” the current worth (on the valuation date) of an amount or series of amounts payable or receivable in the future. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Present value of the Obligation. The actuarial present value as of a date of all benefits attributed by the pension benefit formula to employee service rendered before that date. The Present value of obligation is defined in AS 15 and is measured based on the discount rate and other assumptions used for accounting disclosure purposes. The present value of the obligation is measured using assumptions as to future compensation levels and increases in maximum benefit limitations (if applicable). The interest rate used in determining the present value is the discount rate.

Service Cost. It has the following components.

A) This is the discounted present value of benefits attributed by the plan's benefit formula to services

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rendered by employees during the accounting period. It is measured using an assumption as to future pay levels.
b) Past service cost: which is the change in the present value of the defined benefit obligation for employee service in prior periods, resulting from a plan amendment (the introduction or withdrawal of, or changes to, a defined benefit plan) or a curtailment (a significant reduction by the entity in the number of employees covered by a plan); and

Settlement. A transaction that is irrevocable relieves the employer (or the plan) of primary responsibility for a pension benefit obligation and eliminates significant risks related to the obligation and the assets used to effect the settlement. The purchase of non-participating annuities or the payment of significant lump-sum payments to plan participants might constitute a settlement.

Termination Benefits. Benefits provided to employees in connection with their termination of employment at a specific time or under certain prescribed circumstances

Unrecognized Net Gain or Loss. The cumulative net gain or loss that has not been recognised as a part of net periodic pension cost.

Unrecognised Past Service Cost. That portion of past service cost that has not yet been recognised as part of expense is unrecognised past service cost.

ENDS.