XXX MANUFACTURING INDIA PVT LTD

EMPLOYEES GRATUITY SCHEME

MEASUREMENT REPORT

Disclosure as per IND AS 19- Defined Benefit Plans

FOR THE PERIOD ENDING
XX-YY-ZZ.

SRINIVASAN NAGASUBRAMANIAN B.Sc., A.F.I.I., F.I.A.I., Dip. Manag.
Mem.No: 00144(1985)

XX-YY-ZZ

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1 INDEX

2. PREAMBLE

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(hereinafter called the "Company") has requested us to report on the financial position of the
employees Projected Benefits Plan relating to Gratuity Scheme (Called "the Plan") Liabilities
and ascertain the accounting expenses of it in accordance with IND AS 19 for the fiscal year
/ period ending on *xx-yy-zz*

keeping in view the provisions of

a) The Rules of the Scheme, salient features of which are given later
b) Relevant Guidance Notes issued by the Institute of Actuaries of India which are currently in vogue
c) The Ministry of Corporate Affairs notification dated 16 Feb 15 on Indian Accounting Standard (IND AS) 19 issued in consultation with National Advisory Committee on Accounting Standards.

1.1 A net worth based road map for the phased implementation of IND AS 19 has been announced by the Ministry of Corporate Affairs (MCA). For companies with net worth exceeding Rs 500 Cr, adoption of IND AS 19 is mandatory from 01-04-2016.

1.2 The results set out in this Report are based on our understanding of IND AS 19 and its application to the Plan. They have been evaluated for the specific requirements of IND AS 19 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 is 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

XX-YY-ZZ

DEFINED BENEFITS COST:	P&L CHARGE FOR PERIOD ENDING	XX-YY-ZZ
1.CURRENT SERVICE COST		XX
2.NET PERIODIC BENEFIT COST RECOGNISED IN P & L		YY
3.REMEASUREMENTS RECOGNISED IN OTHE COMPREHENSIVE INCOME		ZZ
XX-YY-ZZ		XX-YY-ZZ
4.PRESENT VALUE OF DEFINED BENEFITS OBLIGATIONS(DBO)		
XY		XY
5.FAIR VALUE OF THE PLAN ASSETS (FVA)		
XY		XY
6.NET ASSETS/LIABILITIES RECOGNISED IN BALANCE SHEET		
XY		XY

Current Service Cost represents the cost associated with the current fiscal year benefit accruals. Total Employer expense is the expense under IND AS 19 inclusive of Current Service Cost and net interest.

2.2 Table 1 - Net Periodic Cost	
Expense for the period ending	XX-YY-ZZ
2.3 Table 2 - Re-measurements	
recognised in OCI for the period ending	XX-YY-ZZ
2.4 Table 3 - The Net Asset/ (Liability)	
Recognized in the Balance Sheet as on	XX-YY-ZZ
2.5 Table 4 - The Reconciliation of PV of Obligation	
& FV of Plan Assets - Period Ending	XX-YY-ZZ
2.6 Table 5 - Expected Cash Flow	XX-YY-ZZ
2.7 Table 6 - Recognized In Other Comprehensive Income	XX-YY-ZZ
2.8 Table 7-Reconcilation of Net Balance Sheet	XX-YY-ZZ
2.9 Table 8-Sensitivity Analysis	
Over the period ending on	XX-YY-ZZ

4.Sources of Information

4.1 In preparing this Report I have used and relied on the financial data as well as membership information supplied to me on the valuation date by the Company

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 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, amendments, Contributions and Benefits Payments, 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 market yields of Government bonds , 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:

Refer para 139(a)(i) of Ind AS 19

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	XX-YY-ZZ
Sponsoring Employer	XXX
Type of Plan	Defined Benefits
Covering	Gratuity
Eligibility	All Regular Employees
Vesting Criteria	
On retirement	5 Years of Service
On Leaving Service	Equal to or more than 5 Years of Service
on death	Vesting condition not applicable
Employer Contribution	100%
Employee Contributions	Nil
Applicable Salary	Last Drawn Basic + D.A (excluding all other allowances and perquisites))
Normal Retirement Age	60
Benefit Basis	Accrued Benefits
Benefit Payment Types	Lump sum Payment
Normal Retirement Benefit	15/26xSalaryxPQS
Early Retirement Benefit	Same as above
Death Benefit	Same as above
Note	PQS is completed years of service rounded to nearest integer, subject to a minimum of 5 years of qualifying service
Maximum Limit On Benefits	Rs. 1,000,000
Special Conditions	Salary paid in a month is treated as for 26 days as per Supreme Court judgment

6.Significant Events During the year

(AS PER SEC 139 C OF IND AS 19)

	VALUATION PERIOD	FROM XX-YY-ZZ TO XX-YY-ZZ
	NAME OF EVENT	STATUS
	PLAN PROVISIONS	THERE IS NO PLAN INTRODUCTION OR CHANGES IN PROVISIONS DURING THIS PERIOD
	BUSINESS COMBINATION	THERE IS NO BUSINESS COMBINATION DURING THIS PERIOD
	DIVESTURE	THERE IS NO DIVESTURE DURING THE PERIOD
	ACQUISITIONS	THERE IS NO ACQUISITION DURING THE PERIOD
	TRANSFER	THERE IS NO TRANSFER DURING THE PERIOD
	CURTAILMENT	THERE IS NO PLAN CURTAILMENT DURING THE PERIOD
	PLAN SETTLEMENT	THERE IS PLAN SETTLEMENT DURING THE PERIOD
	PLAN COMBINATION	THERE IS NO PLAN COMBINATION DURING THE PERIOD
	PLAN DIVISION	THERE IS NO PLAN DIVISION DURING THE PERIOD
	SPECIAL TERMINATION	THERE IS NO SPECIAL TERMINATION DURING THE PERIOD
	LIABILITY FUNDING(PARA 147(A),IND AS 19)	A FUNDED GRATUITY PLAN
	FUNDING METHODOLOGY(PARA 147(A),IND AS 19)	FUNDED THROUGH AN INSURANCE COMPANY
	BENEFITS PAYMENTS	PAYMENTS THROUGH AN INSURANCE CO
	SALARIES	THERE IS NO SIGNIFICANT INCREASE IN AVERAGE SALARY DURING THE PERIOD
	PERCENTAGE INCREASE/DECREASE IN SALARIES	THE AVERAGE SALARY INCREASED BY-1.62%- DURING THE PERIOD
	EMPLOYEE COUNT	THERE IS NO SIGNIFICANT INCREASE IN EMPLOYEE COUNT DURING THE PERIOD
	PERCENTAGE IN EMPLOYEE COUNT	THE EMPLOYEE COUNT INCREASED BY - 0.39% - DURING THE PERIOD
	EVENTS 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.CERTIFICATION

7.1 The assumptions and methodology used in compiling this Report are consistent with our understanding of IND AS 19. Our calculations follow the company's accounting policy of immediate recognition of gains and losses in the Other Comprehensive Income via retained earnings not in Profit or Loss Account

7.2 The actuarial assumptions adopted for the valuation have been discussed and agreed with the Company. Based on the information provided to us we believe that the actuarial assumptions are reasonable for the purposes described in the report.

7.3 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

7.4 The key assumptions used in the valuations are set out in **Appendix B & D.** The approach used for setting the assumptions is similar to prior year

7.5 The report was prepared in accordance with generally accepted actuarial principles and procedures.

7.6 The distribution of assets categories is set out in **Appendix C.**

7.7 The methodology used in the calculations are set out in **Appendix E.**

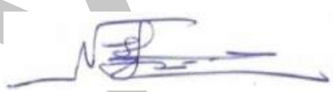
7.8 The Items pertaining to Revised Schedule III of Companies Act 2013 is in Table 3 A

7.9 Based on membership data and plan information provided to me as on the valuation date I have made full actuarial valuation as at the end of the date.

7.10 The full results of my calculations are set out in Tables 1 to 9.

7.11 I would be pleased to discuss this Report with you

Yours faithfully,



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Mem No: 00144 (1985).
XX-YY-ZZ

NET PERIODIC BENEFIT COST RECOGNISED

Para 120(a) and 120(b) of Ind AS 19

TABLE 1

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EMPLOYEES GRATUITY SCHEME

Actuaial Measurements as per IND AS 19

Disclosure of employer expense for the period ending XX-YY-ZZ

Local currency - Rupees

Expense Recognised In Income Statement

The following table summarises the components of net benefit expenses recognised in the P&L Account

A	**Components of Employer expense**		
	Service Cost	XX-YY-ZZ	XX-YY-ZZ
1	Current service Cost	XX	YY
2	Past service cost - Plan Amendment	XX	YY
3	Curtailement Cost/(Credit)	XX	YY
4	Settlement Cost/(Credit)	XX	YY
5	Total Service Cost	XX	YY
	Net Interest Cost		
6	Interest Expense on DBO	XX	YY
7	Interest (Income on Plan Asset)	XX	YY
8	Interest (income)on reimbursement rights	XX	YY
9	Interest expense on effect of (asset ceiling)	XX	YY
10	Total Net Interest	XX	YY
11	Immediate Recognition of (Gain)/Losses- Other Long Term Benefits	XX	YY
12	Cost of Termination Benefits	XX	YY
13	Administrative Expenses and Taxes	XX	YY
14	Defined Benefits cost included in P/L (para 57 c)	XX	YY

Discount Rate as per Para 144 of Ind As 19

6.77%

TABLE 2

XXX

EMPLOYEES GRATUITY SCHEME

Actuaial Measurements as per IND AS 19

Net Asset/(Liability) Recognised in Balance Sheet on– XX-YY-ZZ

Local currency - **Rupees**

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

A	Remeasurement effects recognized in other comprehensive income (oci) (Para 57(d))	XX-YY-ZZ	XX-YY-ZZ
1	Actuarial (Gain) / Losses due to Demographic Assumption changes in DBO	XX	YY
2	Actuarial (Gain) / Losses due to Financial Assumption changes in DBO	XX	YY
3	Actuarial (Gain)/ Losses due to Experience on DBO	XX	YY
4	Return on Plan Assets (Greater) / Less than Disount rate	XX	YY
5	Return on reimbursement rights (excluding interest income)	XX	YY
6	Changes in asset ceiling /onerous liability (excluding interest Income)	XX	YY
7	**Total actuarial (gain)/loss included in OCI { Ind As 19 Para 57(d)}**	XX	YY
8	Total cost recognised in P&L and OCI (Defined Benefit Cost) (para 120)	XX	YY
9	Cost Recognised in P&L (Ind As 19 para 57 c)	XX	YY
10	Remeasurement Effect Recognised in OCI; Para 120 c	XX	YY
11	Total Defined Benefit Cost (para 120 a,b & c)	XX	YY
	Discount Rate as per Para 144 of Ind As 19		
	XY		

AMOUNTS TO BE RECOGNISED IN BALANCE SHEET

DETAILS OF PROVISION FOR GRATUITY

Para 57 a,b and Para 63 and 64

TABLE 3

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Pvt. Ltd

EMPLOYEES GRATUITY SCHEME

Actuaial Measurements as per IND AS 19 **(para 64)**

Net Asset/(Liability) Recognised in Balance Sheet on– **31-Dec-2017**

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 –**	**XX-YY-ZZ**	**XX-YY-ZZ**
1	Present value of Funded Obligation	XX	YY
2	Fair Value of Plan Assets	XX	YY
3	Present value of Unfunded obligation	XX	YY
4	**Funded status [Surplus/(Deficit)] {Para 64(a)}**	XX	YY
5	Unrecognised Past Service Costs	XX	YY
6	Amount not Recognised as an Asset (limit in Para 64(b))	XX	YY
7	Net Liability	XX	YY
8	Recognised in balance sheet	XX	YY
	Assumption on	**XX-YY-ZZ**	
	Discount Rate as per Para 144 of Ind As 19		**XY**

DETAILS OF CURRENT AND NON CURRENTPROVISION FOR GRATUITY

As PER Schedule 3 of Companies Act 2013

TABLE 3 A

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EMPLOYEES GRATUITY SCHEME

Actuarial measurements for IND AS 19 (Revised, 2005) purposes

Net Asset/(Liability) Recognised in Balance Sheet on–	XX-YY-ZZ
Local currency -	**Rupees**

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

A	DETAILS OF CURRENT AND NON CURRENTPROVISION FOR GRATUITY	Current	Non_Current
1	Present value of Benefit Obligation	XX	YY
		XX	YY
2	**Funded status [Surplus/(Deficit)]**	XX	YY
	For funded schemes as per ICAI circular page no 18 (See commentary)	XX	YY

CHANGES IN PRESENT VALUE OF DEFINED BENEFIT OBLIGATION AND RECONCILIATION THEREOF-IND AS 19 PARA 140

	TABLE 4		
	XXX		
	ACTUAIAL MEASUREMENTS AS PER IND AS 19		
A	CHANGE IN DBO OVER THE PERIOD ENDING ON (PARA 140(A)(II) AND 141)	XX-YY-ZZ	XX-YY-ZZ
	Local currency		
1	Present value of DBO at beginning(opening)	XX	YY
2	Current Service Cost	XX	YY
3	Prior Service Costs	XX	YY
4	Interest Cost	XX	YY
5	Benefit payments from plan(Para 141 g)	XX	YY
6	Benefit payments from employer(Para 141 g)	XX	YY
7	Acquisitions/Divestures/Transfer	XX	YY
8	Plan Amendments	XX	YY
9	Curtailments	XX	YY
10	Settlements(Para 141 g)	XX	YY
11	Actuarial (Gains)/Loss	XX	YY
12	Present Value Of DBO at the ending period	XX	YY
B	RECONCILIATION OF OPENING & CLOSING OF PLAN ASSETS(IND AS 19 PARA 140(A) (I)		
1	Fair Value of Plan Assets at end of prior yr	XX	YY
2	Interest income of assets	XX	YY
3	Total employer contributions	XX	YY
3a	Employer Contribution (Para 141 f)	XX	YY
3b	Employer direct benefit payments	XX	YY
4	Plan Participant's contributions (Para 141 f)	XX	YY
5	Benefits Payouts from employer (Para 141 g)	XX	YY
6	Benefits Payouts from plan(Para 141 g)	XX	YY
7	Settlements By Fund Manager (para 141 g)	XX	YY
8	Admin expenses /Taxes paid from plan assets	XX	YY
9	Effect of Change in Exchange rates(Para 141 e)	XX	YY
10	Insurance premiums for risk benefits	XX	YY
11	Actuarial gain/(Loss)	XX	YY
12	Fair Value of assets at the End	XX	YY
13	Actual Return on Plan Assets	XX	YY

INFORMATION REQUIRED UNDER IND AS19

Para 147 of Ind AS 19

TABLE 5

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EMPLOYEES GRATUITY SCHEME

Actuaial Measurements as per IND AS 19

	Para 147 a Funding Arrangement as on		XX-YY-ZZ
147(a)	"The company has started funding the liability throgh the medium of an insurance company."&" Regular assesment is made by the insurance co of the increase in liability under certain assumptions"&" and contributions are being made to maintain the fund ."&" subject to credit risk of the insurance co & asset liability mismatch risk of the investments (para 146)" The Company will not be able to meet the past service liability on the valuation date that fall due during the first year		
147 b	**Expected Contributions to the plan for the next annual reporting period.(Para147 b)**		**XYZ**
147 c	Information on the maturity profile of the liabilities given below	XX-YY-ZZ	XX-YY-ZZ
147 c	Weighted average duration of the D B O	2.23	1.97
1	**Projected Benefit Obligation**	XX	YY
2	**Accumulated Benefits Obligation**	XX	YY
		XX-YY-ZZ	
3	FIVE YEAR PAYOUTS(Para 147 C)	Discounted values / Present value	undiscounted values / Actual value
4	YEAR (I)	XX	YY
5	YEAR (II)	XX	YY
	YEAR (III)	XX	YY
	YEAR (IV)	XX	YY
	YEAR (V)	XX	YY
	NEXT 5 YEAR PAYOUTS(6-10YRS)	XX	YY
6	Payouts Above Ten Years	XX	YY
7	Vested benefit Obligation as on *Para 137 (b)*	XX-YY-ZZ	XY

TABLE 6

XXX

EMPLOYEES GRATUITY SCHEME

Actuaial Measurements as per IND AS 19

Amounts Recognized in Other Comprehensive Income

For the period ending on XX-YY-ZZ

Local currency - Rupees

A	Amounts Recognized in Other Comprehensive Income	XX-YY-ZZ	XX-YY-ZZ
1	Opening cumulative other comprehensive Income	XX	YY
2	Actuarial Loss / (Gain) On DBO	XX	YY
3	Actuarial Loss /(Gain) On Assets	XX	YY
4	Amortization Actuarial Loss /(Gain)	XX	YY
5	Net increasing in OCI	XX	YY
6	Amortization Of Prior Service Cost	XX	YY
7	Total Recognised In Other Comprehensive Income	XX	YY

RECONCILIATION OF NET BALANCE SHEET LIABILITY

TABLE 7

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EMPLOYEES GRATUITY SCHEME

Actuaial Measurements as per IND AS 19

Reconciliation Of Net Balance Sheet Liability

For the period ending on XX-YY-ZZ

Local currency - Rupees

	Reconciliation Of Net Balance Sheet Liability	XX-YY-ZZ	XX-YY-ZZ
1	Net Balance sheet Asset/(Liability) Recognised at beggining	XX	YY
2	Amount Recognised In Accumulated Other Comprehensive Income/Loss at the beginning of the period	XX	YY
3	(Accrued)/ Prepaid benefit cost(Before adjustment) at beggining the of period	XX	YY
4	Net Periodic Benefit (Cost)/Income for the period	XX	YY
5	Employer Contribution	XX	YY
6	Currency Impact	XX	YY
7	(Accrued)/ Prepaid benefit cost(Before Adj) at end of period	XX	YY
8	Amount Recognised In Accumulated Other Comprehensive Income/Loss at the end of the period	XX	YY
9	Direct Benefit by Employer	XX	YY
10	Admin expenses /Taxes paid from plan assets	XX	YY
11	Net Balance Sheet Asset/Liab Recognised at the end of the period	XX	YY

SENSITIVITY ANALYSIS

Information requred under Para 145 of Ind AS 19

TABLE 8

XXX

EMPLOYEES GRATUITY SCHEME

Actuarial measurements for IND AS 19 purposes

145 A SENSITIVITY ANALYSIS

XX-YY-ZZ

Rupees

145 A	How the D B O would have been affected by 100 basis points changes in the actuarial assumtions namely discount rates,salary growth, Attrition & Mortality is shown below

A INFORMATION REQUIRED UNDER IND AS 19 XX-YY-ZZ

		% increase in DBO	LIABILITY
1	DISCOUNT RATE +100 basis points	XX	YY
2	DISCOUNT RATE -100 basis points	XX	YY
3	SALARY GROWTH +100 basis points	XX	YY
4	SALARY GROWTH -100 basis points	XX	YY
5	ATTRITION RATE +100 basis points	XX	YY
6	ATTRITION RATE-100 basis points	XX	YY
7	MORTALITY RATE 10% UP	XX	YY

145 B.-We have used P.U.C method.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. The limitaions are that in assesing the change other parameters are kept constant. As some of the assumptions may be correlated, it is unlikely that changes in assumptions will occur in isolation of one another.

145 c	There is no change from the previous period in the methods and assumtions used in the preparation of above analysis, except that the base rates have changed

A.1 Active Members:

	TABLE A **XXX**		
	EMPLOYEES GRATUITY SCHEME		
	ACTIVE MEMBERS		
A	**AS AT**	**XX-YY-ZZ**	**XX-YY-ZZ**
1	**Number of Employees**	XX	YY
2	**Total Monthly salaries**	XX	YY
3	**Average Monthly Salaries**	XX	YY
4	**Average past service**	XX	YY
5	**Discontinuance Gratuity**	XX	YY
6	**Term of Liability**	XX	YY
7	**Average Age**	XX	YY

APPENDIX B

PARA 76 & 144 OF IND AS 19

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.

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

Assumption		XX-YY-ZZ	XX-YY-ZZ
Discount rate		XX	YY
Expected return on assets		XX	YY
Salary Escalation		XX	YY
		.	.
Attrition Rate		XX	YY
Mortality	Indian Assured Lives Mortality(2006-08) (Ultimate)		

a sample pick from this table as below

Age	Mortality
XX	YY
XX	YY
XX	YY

Disability: Provided under 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

Para 142,Ind AS 19

APPENDIX C

XXX

EMPLOYEES GRATUITY SCHEME

ASSETS DISTRIBUTION

A	AS AT	XX-YY-ZZ	XX-YY-ZZ
	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(other investments, bank balance etc)	0.00%	0.00%
7	Assets Under Insurance Schemes	XX	YY
8	Total	XX	YY

APPENDIX D

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 IND AS19. The company was advised on assumptions as per the requirements under IND AS19.

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:	X.Y%
Retirement age:	XY

Table of Sample Rates

Mortality			Disability	
Male	Female	Age	Male	Female
XX	YY	XX	YY	XY
XX	YY	XX	YY	XY
XX	YY	XX	YY	XY
XX	YY	XX	YY	XY
XX	YY	XX	YY	XY
XX	YY	XX	YY	XY
XX	YY	XX	YY	XY
XX	YY	XX	YY	XY
XX	YY	XX	YY	XY

SAMPLE RATES CONTD...

Mortality		Disability		
Male	**Female**	Age	**Male**	**Female**
XX	YY	XY	XX	YY
XX	YY	XY	XX	YY
XX	YY	XY	XX	YY
XX	YY	XY	XX	YY
XX	YY	XY	XX	YY
XX	YY	XY	XX	YY
XX	YY	XY	XX	YY
XX	YY	XY	XX	YY
		Age		
Withdrawal		Retirement		
XX	YY	XY	XX	YY
XX	YY	XY	XX	YY
XX	YY	XY	XX	YY
XX	YY	XY	XX	YY
XX	YY	XY	XX	YY
XX	YY	XY	XX	YY
XX	YY	XY	XX	YY
XX	YY	XY	XX	YY
XX	YY	XY	XX	YY
XX	YY	XY	XX	YY
XX	YY	XY	XX	YY
XX	YY	XY	XX	YY
XX	YY	XY	XX	YY
XX	YY	XY	XX	YY
XX	YY	XY	XX	YY
XX	YY	XY	XX	YY
XX	YY	XY	XX	YY

APPENDIX E: THE METHODOLOGY

(Para65- 67-70 of Ind as 19)

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 yea. 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.

1.DESCRIPTION OF PLAN CHARACTERISTICS AND ASSOCIATED RISKS:

(Para 135 a and Para 139 b;Ind AS19)

The Gratuity scheme is a final salary defined benefit plan, that provides for a lumpsum payment at the time of seperation; based on scheme rules the benefits are calculated on the basis of last drawn salary and the period of service at the time of seperation and paid as lumpsum. There is a vesting period of 5 years.

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

1. Interest rates 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 rate because the cost of retirement benefit of a short caring employees will be less compared to long service employees.
4. .Asset Liability Mismatch. This will come into play unless the funds are invested with a term of the assets replicating the term of the liability.

Actuarial Risk:

It is the risk that benefits will cost more than expected. This can arise due to one of the following reasons

Adverse Salary Growth Experience: Salary hikes that are higher than the assumed salary escalation will result into an increase in Obligation at a rate that is higher than expected.

Variability in mortality rates: If actual mortality rates are higher than assumed mortality rate assumption than the Gratuity benefits will be paid earlier than expected. Since there is no condition of vesting on the death benefit, the acceleration of cash flow will lead to an actuarial loss or gain depending on the relative values of the assumed salary growth and discount rate.

Variability in withdrawal rates: If actual withdrawal rates are higher than assumed withdrawal rate assumption than the Gratuity benefits will be paid earlier than expected. The impact of this will depend on whether the benefits are vested as at the resignation date.

Investment Risk:

For funded plans that rely on insurers for managing the assets, the value of assets certified by the insurer may not be the fair value of instruments backing the liability. In such cases, the present value of the assets is independent of the future discount rate. This can result in wide fluctuations in the net liability or the funded status if there are significant changes in the discount rate during the inter-valuation period.

Liquidity Risk:

Employees with high salaries and long durations or those higher in hierarchy, accumulate significant level of benefits. If some of such employees resign / retire from the company there can be strain on the cash flows.

Market Risk:

Market risk is a collective term for risks that are related to the changes and fluctuations of the financial markets. One actuarial assumption that has a material effect is the discount rate. The discount rate reflects the time value of money. An increase in discount rate leads to decrease in Defined Benefit Obligation of the plan benefits & vice versa. This assumption depends on the yields on the corporate / government bonds and hence the valuation of liability is exposed to fluctuations in the yields as at the valuation date

Legislative Risk/Regulatory Risk:

Legislative risk is the risk of increase in the plan liabilities or reduction in the plan assets due to change in the legislation / regulation. The government may amend the Payment of Gratuity Act thus requiring the companies to pay higher benefits to the employees. This will directly affect the present value of the Defined Benefit Obligation
And the same will have to be recognized immediately in the year when any such amendment is effective.

2.(A)Description of Regulatory Frame work

Para 139 a (ii) of Ind As 19

While the payment of gratuity is statutory and provided by the Payment of Gratuity Act 1972 and subsequent amendments; 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 the security of gratuity benefits to the employees is ensured.

2.(B) Description of Entity's Responsibilities for Governance-

refer para 139(a)(iii) of Ind AS 19

The trustees of the Trust created for the plan becomes responsible for the governance of the plan.

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.

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

4.Current& Non –Current Liabilities:

(Not specified under Ind AS 19; sec 133)

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-employement 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

5.DISCONTINUANCE GRATUITY

This refers to the payment of Gratuity Liability on the valuation Date in case the company discontinues its commercial operations. It is the sum total of gratuity payable to each and every employee including those with less than 5 years of service.

6.TERMOFFUTURELIABILITY is a weighted average term , the liabilities falling due in each year being the weights..

The discount rate is based on the term of the future liability. Term of the future liability is equal to term used in the bond rate table, for determining the discount rate.

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

Tenor	Price	Yield
	Range	Range
XX	YY	ZZ
XX	YY	ZZ
XX	YY	ZZ
XX	YY	ZZ
XX	YY	ZZ
XX	YY	ZZ
XX	YY	ZZ

7.DETERMINATION OF CONTRIBUTION RATES :

This can be done by the companies by spreading the balance Actuarial liability as on the valuation Date (i.e. Total Benefit Obligation taking into account the total service of the employees from date of joining to retirement less the current asset for the Plan) over the balance expected service of the employees as a group.

The annual contribution rate to meet future service liability is calculated using the Expression below:

(1) Actuarial Value of Total Service Liability Less Assets Value: TBO-A

(2) Actuarial Value of One Percent of future salaries over the balance Expected service time.1%C

(3) Uniform Future Annual Contribution Rate (%) = (1)/(2)= (TBO-A)/1%C

8.UNDERSTANDING ACTUARIAL GAINS AND LOSSES.

Possible reasons for Actuarial Gains or Losses on Plan Liabilities
1. If the actual attrition, retirement or mortality experience turns out to be higher or lower than expected based on the assumptions made at the start of the accounting period, it would lead to an Actuarial Gain or Loss on Plan Liabilities.
2. If the salary increases are higher or lower than expected based on the assumption made at the start of the accounting period, it would lead to an Actuarial Gain or Loss on Plan Liabilities.
3. If the actuarial assumptions of salary increase, attrition rate and discount rate change from one valuation year to another, it may lead to Actuarial Gain or Loss on Plan Liabilities.
4. Any significant changes in the demographic profile may also lead to Actuarial Gain or Loss on Plan Liabilities such as a large growth of the employee count from new joiners.
5. If the actual leave availment from the current year entitlement is different than the Availment Pattern assumed at the start of the accounting period, it may leave to Actuarial Gain or Loss on Plan Liabilities.

Possible reasons for experience Gains or Losses on Plan Assets;
1. Return on plan assets greater /(lesser) than discount rate. For example, if the discount rate was 8% and the fund actually earned 7%, it would result in an actuarial loss on assets.

9.ASSET LIABILITY MATCHING STRATEGIES

PARA 146, IND AS 19

The Company has purchased insurance policy, which is basically a year-on-year cash accumulation plan in which the interest rate is declared on yearly basis and is guaranteed for a period of one year. The insurance Company, as part of the policy rules, makes payment of all gratuity out goes happening during the year (subject to sufficiency of funds under the policy). The policy, thus, mitigates the liquidity risk. However, being a cash accumulation plan, the duration of assets is shorter compared to the duration of liabilities. Thus, the Company is exposed to movement in interest rate (in particular, the significant fall in interest rates, which should result in a increase in liability without corresponding increase in the asset).

APPENDIX G INDEX OF IND AS 19

S. No	SECTION/PARA OF IND AS 19	HEADING	PAGE NO	TABLE NO / ARTICLE NO	Row
1	Para 57 a i, ii, iii	Accounting for Defined Benefit Plan	11	3	Full Table
2	Para 57 b	Effect of Asset ceiling	9,11	1	Table 1--Row 9, Table 3-- Row 6
3	Para 57 c	Determining amounts to be recognized in P/L	9	1	Full Table
4	Para 57 d	Remeasurements in OCI	10	2	Full Table
5	Para 57 d	Remeasurements in OCI	13	4	Table 4A Row11, Table 4B Row 11
6	Para 63 and 64	Balance Sheet	11	3	Full Table
7	Para 64 b	Effect of Asset ceiling	9,11	1 & 3	Table 1--Row 9, Table 3-- Row 6
8	Para 120	Total Cost Recognized	10	2	Full Table
9	Para 120 (a) and 120 (b)	Components of defined benefit costs	9	1	Full Table
10	Para 120 (C)	Remeasurements in OCI	10	2	Row 7
11	Para 135 (a)	Characteristics of Defined Benefits Plan and Risks associated with that	24	Appendix F	1.5 page
12	Para 135 (b)	Explanation of amounts in finanacial statements	9--13	1,2,3,3A and 4	full Table
13	Para 135 (c)	Amount, timing and uncertainity of future cash flows	14,17	5,9	Full Table
14	Para 139 a (i)	Nature of Benefits provided by plan	6	Article 5	Full Table
15	Para 139 a (ii)	Description of the regulatory framework underwhich the plan operates	26	2A	
16	Para 139 a (iii)	Description of the entities responsibility for Governance	26	2B	
17	Para 139 b	Risk Exposures	25	Appendix F	1.5 page
18	Para 140(a)(i)	Reconciliation of the Fair Value of Plan Assets	13	4--B	Lower Part of 4
19	Para 140(a)(ii)	Reconciliation of the Present Value of Obligation	13	4--A	Upper Part of 4
20	Para 140(a)(iii)	Effect of Asset ceiling	9,11	1	Table 1--Row 9, Table 3-- Row 6
21	Para 141, a	Service cost,	13	4--A	Row 2
22	Para 141 b	net interest cost	9	1	Row 10
23	Para 141 b	net interest cost	13	4--A,4--B	4--A, Row 2;4--B,Row 2
24	Para 141 c	Remeasurements	10	2	Row 7
25	Para 141 c	Remeasurements(actuarial Gains /Losses)	13	4	4--A Row 11 and 4--B, Row 11
26	Para 141 e	the effect of changes in foreign exchange rates.	13	4	4B ,Row 9

27	Para 141 f	contributions to the plan, showing separately those by the employer and by plan participants.	13	4	4B ,Row 3a, 3b
28	Para 141 g	payments from the plan, showing separately the amount paid in respect of any settlements.	13	4	4B, Row 5,6,7
29	Para 141 h	the effects of business combinations and disposals.	13	4	4--A, Row 7
30	Para 142	Major Categories of Plan Asset As a percentage of the fair value	20	APPENDIX C	Full table
31	Para 144	Principal Actuarial Assumptions	19& 21	Appendix B and Appendix D	Full Table
32	145 A	Sensitivity analysis	17	TABLE 8	row no 16 to 22
33	145 B.	Methods, Assumptions and Limitations	17	TABLE 8	Row no 24
34	145 c	Changes from previous period in methods and assumptions	17	TABLE 8	Row no 25
35	Para 146	Asset Liability Matching Strategies	27	Appendix F, Article 9	
36	Para 147(a)	Description of Funding arrangements and Funding Policy	14	TABLE 5	Row no 10
37	Para 147(b)	"Expected Contributions to the plan for the			
38	Para 147(C)	next annual reporting period."	14	TABLE 5	Row no 12
39	Para 147(C)	Weighted average duration of the D B O	14	TABLE 5	Row 14

APPENDIX H 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/Gratuity 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 **v**alue 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 IND AS (19) 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 IND AS (19). Components of expense are current service cost, interest cost, expected return on plan assets 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 IND AS (19)*and comprises the sum of the service and net interest costs, plus amortized actuarial gain /Loss.

***Other Comprehensive Income* :**

Other comprehensive income comprises items of income and expense (including reclassification adjustments) that are not recognized in profit or loss as required or permitted by other IND AS 19.

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.

Remeasurements of the net defined benefit liability (asset) comprise:

(a) actuarial gains and losses;

(b) the return on plan assets, excluding amounts included in net interest on the net defined benefit liability (asset);and

(c) any change in the effect of the asset ceiling, excluding amounts included in net interest on the net defined benefit liability (asset).

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 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.