INSTITUTE OF ACTUARIES OF INDIA

EXAMINATIONS

21st March 2017

Subject SA4 – Pensions and Other Employee Benefits

Time allowed: Three hours (14.45* - 18.00 Hours)

Total Marks: 100

INSTRUCTIONS TO THE CANDIDATES

1. ***Please read the instructions inside the cover page of answer booklet and instructions to examinees sent along with hall ticket carefully and follow without exception***
2. **** You have 15 minutes at the start of the examination in which you are required to read the questions. You are strongly encouraged to use this time for reading only, but notes may be made. You then have three hours to complete the paper.***
3. ***You must not start writing your answers in the answer sheet until instructed to do so by the supervisor***
4. ***The answers are expected to be India Specific application for the syllabus and corresponding core reading. However, substantially the core reading material is still taken from material supplied by Actuarial Education Company which is meant for UK Fellowship examination. The core reading also contains some material which is India Specific applications or work carried out from within India, mostly the APS/GNs issued by ASI/IAI, Accounting Standards by ICAI, Indian Tax and other relevant documents and funding or accounting standards issued by other bodies outside India. In view of this, it should be noted that focal point of answers is expected to be India Specific application for work generally carried out of India. However if application specific to any other country is quoted in the answer, the same you should answer the question with reference to Indian environment.***
5. ***Attempt all questions in order of sequence.***
6. ***Begin answer to each question on a separate sheet, however answer to sub-questions can be on the same sheet.***
7. ***Mark allocations are shown in brackets.***
8. ***Please check if you have received complete Question Paper and no page is missing. If so then kindly get new set of Question Paper from the Supervisor.***

AT THE END OF THE EXAMINATION **Please return your answer booklet and this question paper to the supervisor separately. You are not allowed to carry the question paper in any form with you.**

Q. 1) You are an actuary advising a company in India on retirement benefit matters. Your client is a foreign company with multiple subsidiaries operating in India. The local subsidiaries are separate entities and their common holding company is based overseas i.e. there is no group structure in India itself but there are parent linkages overseas.

One subsidiary has announced that it is due to wind down over the next 5 years until 31st December 2021. Out of the current workforce of 500; 250 will leave in 2017; 100 in 2018; 100 in 2019; 30 in 2020 and the rest when the company shuts down in 2021. The broad demographic profile of the population is quite homogenous and so is expected to remain similar during the wind down.

- It has a self-managed funded trust for its gratuity plan which follows the basic Payment of Gratuity Act 1972 benefit formula.
- In addition it has a legacy defined benefit pension plan funded through an insurance company group policy. This plan was closed to new entrants in January 2010 but existing employees at the time continue accruing benefits.
- The company has provided discretionary cost of living pension increases to pensions in payment each year, on a pay as you go basis from the company cash flow.

Plan Provisions

- Normal Retirement Age (NRA) is age 60 for the company
- Pension on leaving service is 1.5% of Salary for every year of service
- Vesting is 7 years' service
- On leaving service before NRA employees commence their pension immediately and the Trust secures an non-increasing annuity with an insurance company
- On commencement of pension the employee may commute up to one-third of their pension for a lump sum; the commuted pension is also restored after 15 years or age 75, whichever is later
- Pensions are payable for life of the member with a survivor 50% pension
- Pension increases declared in the last 5 years have averaged 5% per annum but were earlier an average of 10% per annum for the previous 10 years.

IAS 19 Valuation summary as at 31st December 2016

Key Assumptions

Financial	Demographic
Discount rate: 7% p.a.	Attrition: 5% p.a. across all ages
Salary Increases: 4% p.a.	Standard LIC mortality rates for each pre-retirement and post-retirement
Pension increases: 10% p.a.	No disability or ill-health assumption

Illustrative annuity rates per INR 1 annual pension @7% discount rate

Age	Non Increasing	5% p.a. increases	10% p.a. increases
45	13	25	60
60	11.4	19	37

Key Results/Data

INR m	Gratuity Plan	Funded Pension	Unfunded Pension Increases
DBO – Actives	200	600	1,000
DBO – Retirees	0	50	2,500
DBO – TOTAL	200	650	3,500
Assets	300	900	0
Surplus/(Deficit)	100	250	(3,500)
Actives	500	150	
Average age	37	45	N/A
Retirees (incl. spouse pension in payment)	N/A	400	
Average age	N/A	60	N/A

The CFO has asked you to help prepare him for a steering group meeting next quarter.

Outline the points you will make in your paper, covering the following aspects:

i) What are the key accounting P&L and balance sheet points under IAS19 that he must consider given the news of the wind down of the company?
a) For 2017 - This should include very high level estimates of financial impact (15)
b) Beyond 2017 (3)

ii) What can cause actuarial gains/losses over the coming years (4)

iii) How should contributions be determined for each of the plans for the next 3 years (3)

You receive a call from the Head of HR and she requests similar support and asks you to cover the following:

iv) Options the company has to secure benefits for employees for the different plans during the wind down of the business; what are the key pros and cons and implications of each option; what considerations will determine the feasibility of each option (15)

v) Where may the Company consider amending the Trust documentation to future proof them given wind down scenario (2)

vi) What options are there to deal with any surplus/deficit (3)

vii) What are the key activities in winding up the trusts in 2021 (5)
[50]

Q. 2) Company A is a medium size company operating in hospitality Service industry. It is offering gratuity to its employees numbering about 1200 as per Gratuity Act 1972(with a ceiling of Rs.1million). The company has set up an irrevocable tax approved Trust through which it funds for the benefits. Assets are self-managed by the company.

i) Describe the risks to the company from this scheme arising out of factors external to the Company. (7)

Company A, has been put up for sale by its promoters in India by selling their stakes. Company B, a Global multinational has shown interest in acquiring Company A and has submitted "non binding" bid. The indicative purchase price has been quoted based on the initial information provided by Company A. The initial information contained the following information regarding "Gratuity benefits" of employees of Company A.

NRA	60				
salary growth	3%				
discount	8%				
Average age	Average Salary per month	number of members	Average Past service	Average future working lifetime	Value of PSB for the group in million rupees
25	30000	450	5	20	15.0
40	100000	600	10	10	220.0
55	150000	150	30	5	90.0
				Total PSB	325.0
				funding level	85%
				Assets held	276.0

Company B proposes to perform "actuarial due diligence" of the PSB of Gratuity of Company A employees before it intends to finalize the purchase price. They have engaged you as a consultant Actuary for this purpose.

ii) **a)** List the ways in which Gratuity and other Employee benefits are dealt with in the purchase arrangement. (7)

b) List any of the 6 documents you will be calling for this exercise and indicate with purpose the information you will be looking for in each of the documents. (6)

iii) **a)** What is the objective of the due diligence exercise initiated by company B? (3)

b) Discuss the aspects you will be covering in the Actuarial investigations in the "due diligence exercise" (8)

Company B is offering gratuity to its 4,000 employees as per Gratuity Act 1972 (without ceiling) The Scheme is established under Part C of Income Tax Act 1961. The funding objective of the Trust will be to keep funding level at 105% of PSB using PU method. The membership profile of the Gratuity Scheme is as under:

NRA	60				
salary growth	4%				
Discount	6%				
Average age	Average Salary per month	number of members	Average Past service	Average future working lifetime	Value of PSB for the group in million rupees
25	30000	1500	5	20	90.0
40	100000	2000	10	10	955.0
55	150000	500	30	5	1180.0
				Total PSB	2225.0
				funding level	105%
				Assets held	2336.0

It has been decided by both the companies that the gratuity scheme of A will be merged into the scheme of B post sale. The members of Scheme A will be getting the benefits as per Scheme B. (i.e. Gratuity without ceiling). The assets & PSB of members of Trust A will be transferred into Trust B.

iv) **a)** Calculate the revised funding level of Scheme B following the merger of scheme A. State the assumptions made in your calculations. (7)

b) Discuss the reasons with reconciliation of surplus/deficit by reason for the change in the funding level following merger. (7)

c) Discuss the several alternatives available to the Trustees of Scheme B following the decision of company B to merge the two schemes due to the acquisition of Company A. (5)

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