INSTITUTE OF ACTUARIES OF INDIA

EXAMINATIONS

26th November, 2012

Subject SA4 – Pensions & other Employee Benefits

Time allowed: Three hours (9.45* - 13.00 Hrs)

Total Marks: 100

INSTRUCTIONS TO THE CANDIDATES

1. ***Please read the instructions on the front 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 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 are meant for UK Fellowship examination. The core reading also contains some material which is India Specific, mostly the IRDA regulation. In view of this, it should be noted that focal point of answers is expected to be India Specific application. However if application specific to any other country is quoted in the answer the same should answer the question with reference to Indian environment.***

5. ***Attempt all questions, beginning your answer to each question on a separate sheet.***

6. ***Mark allocations are shown in brackets.***

7. ***Please check if you have received complete Question Paper and no page is missing. If so, kindly get new set of Question Paper from the Invigilator.***

AT THE END OF THE EXAMINATION
Please return your answer book and this question paper to the supervisor separately.

Q.1) A large pharmaceutical Company provides the following employee benefits to its employees.

1. A Gratuity benefit that is better than the Payment of Gratuity Act provisions in certain aspects,
2. A non-contributory Defined Contribution with Defined Benefit underpin approved superannuation scheme to employees of management grades only

The CFO of the Company is critically looking at the cost of the above benefit liabilities. You are the actuary to the Company and while meeting the CFO, he raises the issue of increasing benefit liabilities and requests you to come back with a phased approach for optimizing costs and reducing the liabilities.

The details of the current Gratuity and the Superannuation schemes are as below:

Gratuity Scheme:

1. Eligibility: All employees
2. Retirement age: 60
3. Benefits paid on leaving the company, death or retirement per the plan formula
4. PS < 10 years; 15 days of salary for each year of service
5. PS >=10 years; 1 months' salary for each year of service
6. Gratuity ceiling : Nil
7. Vesting: 5 years (not applicable for death benefits)
8. No of employees: 4,500
9. Total monthly Gratuity salary: INR 10.40 crores
10. Average age: 38.20 years
11. Average Past service: 10.30 years
12. Benefits not funded

Superannuation Scheme:

1. Eligibility: Management Grades only
2. Minimum monthly pension: INR 35,000/- or 35% of last drawn Basic monthly salary whichever is less
3. Defined Contribution rate: The company contributes 15% of Basic salary
4. Defined Benefit Underpin: The minimum pension is applicable if the accumulated DC contributions are not sufficient to the cover the minimum pension

5. Vesting: Immediate
6. Benefits paid on leaving the company, death or retirement: per the plan formula
7. The company is part of a large group and employees are frequently transferred from one legal entity to the other with continuity of service. However, the other companies do not have a DC scheme and the transferred employees become eligible to the DC scheme with the DB underpin on transfer into this legal entity only.
8. Number of employees in service eligible for pension: 800
9. Total monthly Pensionable salary: INR 3.4 crores
10. Average age: 41.3 years
11. Average PS: 6.4 years
12. Current Total as at 31 March 2012 DC fund value: INR 35.4 crores
13. Pension is purchased at the time of retirement, leaving service or death with an insurance company at which point the Company liabilities to the employee are extinguished.

The CFO would like a three phase approach to the exercise and has asked for your help as a consulting actuary.

Phase I - the actuarial team that would work on this assignment would go back to the Company with a set of design options and the financial impact information that the management could consider for restructuring the benefits.

Phase II would then involve discussion with management and facilitate in zeroing in on the benefit design that the Company would choose to implement.

Phase III would consist of helping the Company implement the chosen options for both the above plans.

[i] Set out the points you would cover in the management discussion presentation. This should cover the three phases,

[a] the key investigations you would perform for each phase (5)

[b] risks inherent in the current plans (5)

[c] The redesign options (provide at least four redesign options for the Gratuity and at least two redesign options for Superannuation scheme) (5)

[d] key considerations for the redesign to be borne in mind (4)

[e] approach to considering the cost impact of changes (3)

[f] practical considerations for implementing any changes (3)

[ii] The CFO was conducting some budgeting forecasts for a business plan and called you to prepare a short discussion draft note covering

[a] The assumptions needed for the Gratuity and Pension plans respectively to do the liability projections that is required by the Company for the next ten years (5)

[b] Explain the basis and data that is required for setting of the assumptions (5)

[c] An approximate liability assessment of the Gratuity plan with 2 recommended set of assumptions, outlining where approximations have been made for the purposes of the quick estimates (5)

[d] Illustrate a case study and the approach with a sample employee data to demonstrate the impact of the DB underpin for the DC scheme that brings out the key cost levers for the DB underpin (10)

[50]

Q.2) You are a consulting actuary in India. The ministry of Finance has asked you for assistance to develop a comprehensive approach to minimum funding of employer provided defined benefit leaving service/retirement benefits in India. The Objective of the ministry is to ensure minimum funding so that the employee interests are protected in the case of insolvency of the Company.

You have been asked to provide an initial report to the Ministry for consideration. Outline the points you will make in your report, covering the following sections:

[i] Brief description of the current employer provided leaving service/retirement benefits, the current legislation applicable to these benefits, in particular with regards to funding arrangements (5)

[ii] The main aspects that would need to be covered in the legislative framework, indicating implications of potential options for different stakeholders ;

[a] Measurement of funding (5)

[b] Responsibilities of the sponsoring employer and Trustees (5)

[c] How the Sponsor covenant would be factored into the process (5)

[d] Treatment of funding in a Winding up situation (10)

[e] The role of actuarial guidance in such a framework (10)

[f] Monitoring mechanism of such a framework (5)

[iii] Set out key challenges in implementing such a framework (5)

[50]

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