INSTITUTE OF ACTUARIES OF INDIA

EXAMINATIONS

28th May, 2012

Subject SA4 – Pensions and Other Employee Benefits

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

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) Presently Provident Fund and Gratuity are the statutory retirement benefits in India for the organized sector of employees with voluntary pension as a third benefit. There has been a debate within the country that the government should introduce a basic State pension for all (as is provided in most of the developed world) reducing or eliminating the private retirement provision.

a) Outline the advantages and disadvantages of introducing such a system.

The Finance Minister of the country has proposed a new tax in the recent finance bill as per which investment income (but not the capital gains) of all approved retirement benefit schemes will be taxed at 10% rate in future. As per present income Tax provisions of the country investment income of such funds is tax free. (9)

b) **i.** Describe the possible effects on all types of retirement funds' contribution requirements, benefits and investment portfolios. (7)

ii. Assuming an investment income/discount rate of 8% per annum, compute (approximately) the impact for all three main stakeholders i.e. employees, employers and the government under statutory retirement benefit schemes. You may make other assumptions, if any, mentioning them clearly. (9)

iii. What should the government do further in order to extract full benefit of the proposed new tax? (2)

Currently there is a lot of discussion and awareness on retirement benefit provisions within the country. Encouraged by the present atmosphere one of the country's leading financial paper has decided to bring out a supplementary issue covering retirement benefit provisions particularly for the self-employed people.

The editor of the paper has approached you to subscribe an article covering the following aspects:

c) **i.** Description of the following methods by which self-employed may make financial provision for their retirement:

- Personal pension plans of life insurers
- Public Provident Fund (PPF)
- Pension Fund Regulatory and Development Authority (PFRDA) scheme
- Property, and
- Equity (10)

ii. Issues that are considered while advising someone on the rate of contribution to be paid to his/her personal retirement benefit provision (7)

iii. The likelihood that a person who has followed the advice of an actuary in funding his/her personal retirement benefit provision ends up getting the desired benefits in his/her retirement. (6)

List out the points you will cover in the above article for the financial paper.

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Q. 2) A large financial services company in India has offered its employees a defined benefit pension plan for the last 25 years. The company currently has 2,000 employees with an average age of 40 and all employees are members of the plan. The plan currently also pays pensions for 500 retirees. The plan is managed through an approved Trust. The pension plan trust is separate from the Gratuity benefit, which is not funded.

The plan provisions are as follows:

- On retiring or leaving the company (on or after attaining age 50 and 10 years service) the employee is entitled to annual pension payable monthly, calculated on the formulae:

    - 70% of Final Pensionable Salary (FPS) for the first Rs 600,000 per annum of FPS; 60% of FPS for the part of FPS between Rs 600,000 and up to Rs 1,800,000 per annum; and 50% of the portion of FPS that is more than Rs 1,800,000 per annum

  Less

    - The employee's accumulated Gratuity lump sum benefit payable, as per the statutory Gratuity Act benefit, divided by 12.

- On leaving the company before age 50 or not having 10 years of service, the employee receives no pension
- On pensioner's death, a pension to the spouse is payable at half of the original pension. In the case of death during service this will be with reference to FPS on the date of death. The death benefit is payable irrespective of age and service completed by the employee.
- The pension does not increase in payment once in payment as per the Trust rules. However, the company has had a practice of providing increases on the pension on an ad hoc basis every 5 years.
- At retirement, employees have the option to commute up to one-third of their pension in exchange for a lump sum a the rate of Rs10 for Rs1 pension per annum

A new senior management team has recently come on board and has seen how the last three years' cost of this plan has substantially increased in the financial statements. They would like to review the plan with your help as Actuary to the plan.

a) The CFO has asked you to prepare a report covering:

i. The key risks the company faces due to the specific characteristics of the plan (5)

ii. The factors that will influence future costs of the plan in its current design (5)

iii. How does the current plan design affect different types of potential employees (5)

b) The HR Director has said that a defined contribution scheme for new employees that is generally "neutral" to the current pension plan would be a good idea. He has asked for a description of different methods of determining a contribution rate that is "neutral" to the current plan.

i. What are the potential definitions of "neutral" that could be used (2)

ii. Comment on the methods that could be used to work out a contribution rate for the new defined contribution scheme (5)

iii. How suitable they are for this purpose (3)

c) It has been decided to start a brand new defined contribution scheme for all new employees with effect from 1 April 2012. This would be in addition to the statutory gratuity scheme. Having deliberated over the issues, the CFO and HR Director have asked on treatment of existing employees. They would like to consider how to deal with existing employees' benefits already accrued.

i. What are the approaches available to the company to deal with existing employees under the pension plan (2)

ii. What are advantages and disadvantages of each approach that the company needs to keep in mind when deciding the treatment of the existing employees; this is both from the company's perspective and the different employees' perspective (6)

iii. If a transfer value for each individual is to be calculated, what assumptions would be required (3)

iv. Under the approaches in part i), conceptually how would the AS15 (Revised) expense be impacted (5)

v. What investigations are needed to estimate the actual impact on the company financials that would result by offering a transfer value option to existing employees (4)

d) List the specific aspects of the benefit design that will require to be explained to employees to facilitate the decision of the company to

i. introduce a new defined contribution pension plan section (3)

ii. offer the existing employees a choice to join the new section, giving them a choice of transferring the value of their accrued benefits as an opening balance in the defined contribution scheme (2)

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