INSTITUTE OF ACTUARIES OF INDIA

EXAMINATIONS

05th November, 2014 Subject SA4 – Pensions and Other Employee Benefits

Time allowed: Three hours (14.45* - 18.00 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 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 are 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 subquestions 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.

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Q. 1) A manufacturing company offers a final salary occupational pension scheme. The scheme is closed to new entrants from 1st April 2013. However, the active members of the scheme continue to accrue benefits which are linked to the final salary. You have performed the following actuarial valuation at 1st April 2013 and 1st April 2014.

Data for the year

Salary Roll (pa)	Rs.	100 crores
Total pensions in payment (pa)	Rs.	25 crores

Assumptions

The bases used at the two valuations are as below:

Discount rate / Investment return	8.0% <i>pa</i>
Salary increases	6.0% <i>pa</i>
Price inflation	3.0% pa
Pension in payment increases	3.0% pa
Pension in deferment increases	3.0% <i>pa</i>

Results	1 st April 2013	1st April 2014
Market value of assets	Rs. 625 crores	Rs. 650 crores
Past service reserve		
Actives	Rs. 240 crores	Rs. 280 crores
Deferreds	Rs. 100 crores	Rs. 110 crores
Pensioner liability	Rs. 230 crores	Rs. 190 crores

Other Information

- The valuation is performed using Projected Unit Credit method. The Standard Contribution Rate is 15% (including employee contribution rate of 5%).
- Over the year the contribution income was Rs.12 crores and the benefit outgo was Rs.60 crores.
- The scheme expenses and insurance of death-in-service benefits are met separately by the employer.
- The actual experience in terms of salary increase and pension increases are as below:

0	Salary increases	7.0% pa
0	Pension in payment increases	6.0% <i>pa</i>
0	Pension in deferment increases	3.0% pa

- i) Explain briefly the reasons for monitoring the financial significance of deviations in experience from the expectation of a defined benefit scheme over a valuation period.
- ii) Explain and comment briefly the process of analysing the surplus. (12)
- iii) Perform an analysis of surplus that has arisen during the valuation period using the above information stating any assumptions that you make. (14)
- iv) Comment on the results of the analysis of surplus.
- v) Explain briefly the approaches available in analysing the surplus if the assumptions at the two valuation dates are different. State the advantages and disadvantages of the said approaches

(8)

(3)

(3)

[40]

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Q. 2)	i)	What is a retirement Trust? Who are the parties involved in a retirement trust?	(2)
	ii)	Define the constitution & structure, trust regulations, contribution and benefit payment requirements, investment regulations, funding vehicles and tax provisions pertaining to the following:	
	•	Employees Provident Fund	
	•	Gratuity	
	•	Group Superannuation	
	•	NPS	(30) [32]
Q. 3)	i)	For a final salary Defined Benefit pension scheme, list the risks to the sponsor with a suitable illustration to explain the risk (Define the assumption that is being made for the plan provisions for the purpose of illustration of the risks)	(8)
ii	ii)	Explain the options for mitigating such risks for the sponsor of a Defined Benefit Pension scheme	(8)
	iii)	Define the Employees' Pension Scheme (EPS)	(6)
	iv)	The minimum pension under the Employees' Pension Scheme has recently been revised to INR 1000. Explain the implication of this revision with suitable illustrations.	(6) [28]
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