

# EXAMINATIONS

19 April 2004 (pm)

## Subject 404 — UK Fellowship Pensions

### *Paper Two*

**You must answer this subject only, you may not attempt another subject in the 400 series.**

*Time allowed: Three hours*

### **INSTRUCTIONS TO THE CANDIDATE**

1. *Enter all the candidate and examination details as requested on the front of your answer booklet.*
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 booklet until instructed to do so by the supervisor.*
4. *Mark allocations are shown in brackets.*
5. *Attempt both questions, beginning your answer to each question on a separate sheet.*

### **AT THE END OF THE EXAMINATION**

*Hand in BOTH your answer booklet, with any additional sheets firmly attached, and this question paper.*

*In addition to this paper you should have available Actuarial Tables and your own electronic calculator.*

- 1** You are the actuary to a large UK defined benefit pension scheme which provides a range of pensions and life assurance benefits. The employer currently contributes 20% of salaries to this scheme and members contribute at the rate of 5%. The Human Resource (HR) director has approached you and suggested that as employees do not appreciate the pensions package, the value of this is to be notified to them as part of the annual exercise which informs them of their salary increase.
- (i) Outline the points to be included in a letter to the HR director explaining why it would not be appropriate for the value notified to employees to be the rate of contribution currently being paid by the employer to the scheme. [8]
  - (ii) It is decided to use an approach which expresses the cost as a percentage of the employee's salary, the relevant percentage is age-related. Discuss the issues to be considered in setting the assumptions to be used to determine the relevant table of percentage rates. [18]
  - (iii) Describe two alternative approaches of establishing the value to be shown and list any particular problems that these could give rise to. [6]
  - (iv) Five years later, you are asked to prepare a letter responding to a member who has complained. Based on the information supplied on his annual statements, the member was expecting his pension benefits to have a current value of 70% of his salary, whereas the transfer value he has been offered as an alternative to his deferred benefits is approximately half of this amount. Outline the points to be included in the letter. [7]
  - (v) Having read the reply, the member responds that he has approached a financial adviser who has told him that the transfer value offered is only sufficient to buy a deferred annuity of one-third of the scheme deferred pension. Outline the points to be included in the reply to this subsequent letter. [6]
- [Total 45]

**2** You are the Scheme Actuary to a well established large UK final salary pension scheme. You have recently carried out your second triennial valuation of the scheme and have again calculated the past service funding position on four bases:

- The cost of buying out all accrued benefits with an insurance company through immediate and deferred annuities (Buy out).
- The cost of buying out pensions in payment with an insurance company plus cash equivalent transfer values for all other members (Cash Equivalent).
- The Minimum Funding Requirement (MFR).
- A set of long term ongoing funding assumptions assuming all benefits are paid through the fund and including allowance for future salary inflation (Ongoing).

The results of your calculations have disclosed the following funding levels:

	<i>Last Valuation</i>	<i>This Valuation</i>
Buy Out	90%	50%
Cash Equivalent	110%	80%
MFR	110%	105%
Ongoing	100%	75%

The recently appointed chairman of the trustees has asked the following questions:

- (i) Why is the valuation carried out on four different bases and what are the main features and purpose of each valuation? [24]
- (ii) “In layman’s terms” please explain why the four funding levels have changed by such differing amounts. [14]
- (iii) What issues should the trustees be considering when deciding which is the most appropriate basis to use to fund the scheme going forward? [9]
- (iv) Should the trustees consider changing their investment policy as a result of your new valuation? [8]

Outline the points you would cover in your reply to the chairman.

[Total 55]

**END OF PAPER**