EXAMINATIONS

19 April 2004 (am)

Subject 404 — UK Fellowship Pensions

Paper One

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 all 6 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 A UK company is looking to set up a new defined benefit pension scheme with a benefit structure integrated with the benefits provided by the State.

(i) Outline the advantages of integrating the scheme benefits with those provided by the State. [2]

(ii) Outline the possible methods of integrating the scheme benefits with those provided by the State outlining the difficulties involved. [6]
[Total 8]

2 You are having a conversation at a social function with two of your clients. Both are finance directors of large UK companies and each company sponsors a final salary pension plan which covers the majority of its UK employees. One of them observes that his company's pension plan currently has a large surplus and so the trustees have decided that they can afford to increase the level of investment risk. The other responds that her company's plan is seriously underfunded and so the trustees have decided to increase the level of investment risk as that is the only way of returning to an adequate funding level.

(i) Comment on what is meant by "increase the level of investment risk". [4]

(ii) Under each scenario, discuss whether you agree with the trustees' decision. [8]
[Total 12]

3 You have recently been appointed as the Scheme Actuary to a UK final salary pension scheme. The trustees have asked you to review the current early retirement factors.

(i) Outline the issues the trustees should consider when setting early retirement factors. [9]

The employer has suggested that early retirement factors should be actuarially neutral on the MFR basis. This would result in a lower early retirement pension compared to using the current early retirement factors that reduce the member's pension by a fixed percentage for each year before normal retirement age.

(ii) Discuss the advantages and disadvantages of this suggestion. [5]
[Total 14]

4 A UK retail company whose employees work mainly part-time and whose hours fluctuate is considering establishing a new pension scheme for its employees.

The Human Resource (HR) director has asked you to advise on the three alternative scheme designs listed below. In particular, she has asked for your views on their appropriateness for this company's employees.

(a) final salary
(b) revalued average earnings
(c) money purchase

Under each design, the intention is to provide a pension based on total earnings as nearly all employees receive overtime payments throughout their career.

(i) Outline how pension benefits for part-time employees might be determined in a final salary pension scheme. [3]

(ii) Outline the points you would make in your reply to the HR director. [7]

(iii) If a revalued average earnings scheme is to be adopted list three distinct revaluation methods that could be used and explain which method you would recommend. [4]

(iv) The Finance Director then asks what options are available to control the cost or risks of providing a defined benefit pension scheme. Outline the points you would make in your reply. [6]

[Total 20]

PLEASE TURN OVER

5 A large UK company is in the process of reviewing its final salary pension scheme. The scheme currently has a normal retirement age of 65 with an accrual rate of 1/60th for each year of service together with a spouse's pension of 50% of the member's pension. The employee's contribution rate is 6% of basic salary.

The employer is proposing to introduce a new scheme to which employees contribute 5% of their basic salary. They are guaranteed a cash sum equal to 25% of each year's salary which will be used at age 65 to provide retirement benefits.

You are an advising actuary to the existing final salary pension scheme.

(i) Outline the advantages of this proposal for the employer compared to the existing scheme. [4]

(ii) Discuss the other issues and considerations the employer would need to take into account before introducing the new scheme. [4]

(iii) Discuss the advantages and disadvantages of this proposal for the members compared to:

(a) the existing final salary pension scheme

(b) a non-contributory defined contribution pension scheme with an employer contribution rate of 8% [6]

(iv) Discuss the asset-liability matching requirements for the proposed scheme and how these may change over time. [5]

(v) Outline how death in service benefits could be provided under the proposed scheme. [2]
[Total 21]

6 Company ABC is a long-established UK plc with approximately 6000 UK employees. For many years it has operated the ABC pension scheme which all UK employees of ABC and its subsidiaries are eligible to join.

ABC dropped out of the FTSE100 during 2003 following a significant fall in its share price and adverse trading conditions. It is restructuring its operations and is negotiating the sale of Company Z, one of its wholly-owned subsidiaries. Z employs 2000 people in the UK.

Your firm has recently been appointed as actuarial adviser to ABC; you have been asked to advise on the pensions aspects of the sale.

The previous actuary carried out the FRS17 valuation for the ABC scheme as at 1 January 2003. The report included the following information relating to the active membership (averages are unweighted):

• Average age	46.5 years
• Average basic salary	£17,900 a year
• Average service	12.1 years
• Average liability	£40,250

ABC scheme benefits are summarised as:

- Pension at exit is calculated as 1/80th of final pensionable salary for each year of pensionable service.

- Final pensionable salary is basic salary in the final 12 months of service (basic salary reviewed on 1 October each year).

- Normal retirement age is 65, there are no guaranteed early retirement terms.

The ABC scheme was in deficit (FRS17 funding level of 50% at 1 January 2003).

(i) Stating with reasons any assumptions you make, estimate the percentage change in FRS17 liability between 1 January 2003 and 1 January 2004, for an individual employee whose characteristics exactly equalled the average shown in the report at 1 January 2003 and who is still in service at 1 January 2004. [10]

(ii) Discuss why the FRS17 liability for Company Z as a whole will not exactly equal 2000 times £40,250 adjusted in line with your answer to (i). [6]

ABC has pointed out to the purchaser that the ABC scheme cannot afford to pay full transfer values. Therefore ABC has proposed that immediately following the sale employees of Z should cease pensionable service in the ABC scheme and join the purchaser's pension arrangements for future service only.

(iii) If this proposal is accepted, comment on the financial impact of the pensions aspects of this deal on ABC. [5]

The purchaser has commented that ABC's proposal would adversely affect employees' accrued benefits by breaking the link to future salary increases and so would adversely affect employee morale. It suggests that, by way of compensation, ABC should enhance all Z employee's accrued pensions by 20%.

(iv) Outline points you would advise your client to make in response. [4]
[Total 25]

END OF PAPER