EXAMINATION

18 April 2007 (am)

Subject SA4 — Pensions and other Benefits
Specialist Applications

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 3 questions, beginning your answer to each question on a separate sheet.*

6. *Candidates should show calculations where this is appropriate.*

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 the 2002 edition of the Formulae and Tables and your own electronic calculator.

1 You are the Scheme Actuary to a very large defined benefit pension scheme which is closed to future accrual. A formal actuarial valuation is due, and is the first to fall under the terms of the Pensions Act 2004 (i.e. "scheme specific funding"). The Trustees have asked you to explain what are meant by technical provisions and how these should be determined.

Outline the points that you would make in your response covering the following issues:

(i) The general principles underlying scheme specific funding. [5]

(ii) How the Trustees should determine the assumptions and methods to be used in calculating the technical provisions. [8]

(iii) How modelling can assist in establishing whether technical provisions are likely to be adequate. [5]

One of the trustees has suggested that the size of the technical provisions should be directly linked to the investment strategy adopted for the scheme, and that the technical provisions should be higher if higher risk assets are held.

(iv) Discuss the possible use of investment mismatching reserves. [5]
[Total 23]

2 You are the Scheme Actuary to a Final Salary pension scheme that was closed to new entrants some years ago. The employer has indicated that it wishes to change the basis on which future accrual is provided. It proposes to offer the following options:

A Retain existing Final Salary basis (60ths of basic salary for each year of service), but increase member contributions from 5% to 10% of basic salary.

B Switch to a Revalued Career Average basis (also 60ths accrual rate), maintaining member contributions at 5% of basic salary. Revaluations will be in line with RPI.

C Switch to a separate Defined Contribution arrangement, maintaining member contributions at 5% of basic salary and with the employer contribution being 15% of basic salary at all ages. In addition, the employer will meet the expenses of the arrangement.

For all options, the final salary link for accrued benefits will be maintained, a standard death in service dependant's pension of 33% of basic salary at death is payable, and the normal pension age is unchanged at 65.

(i) Calculate the expected pension at retirement at age 65 earned in respect of future service for a 45-year old member with current basic salary of £30,000 p.a. under each option, based on the following assumptions:

Investment Return	6.0% per annum
Salary increases	4.5% per annum
RPI Inflation	3.0% per annum
Cost of £1 p.a. of pension at age 65	£20 (allows for post-retirement benefits to be consistent with defined benefit options)

State any further assumptions you make. [12]

(ii) Suggest, with reasons, which option the member in (i) is likely to select, based purely on an assessment of the best value for money for their contributions using the results calculated in (i). [4]

(iii) Discuss what factors might lead to the member in (i) selecting a different option. [5]

(iv) Discuss why the employer is proposing each of the options above. [9]

(v) Discuss any different considerations for a 55 year old member with current basic salary of £60,000 p.a., and 30 years' pensionable service. [5]
[Total 35]

3 You are the Scheme Actuary to a large defined benefit pension scheme and have just produced the results of the first scheme specific funding valuation of the scheme as at 31 October 2006. The results are significantly worse than at the previous valuation. The Scheme rules, which have not been updated since 1999, give the Company the power to set the contribution rate to be paid.

You have used the Projected Unit method and a discount rate based on the yields available at the valuation date on the corporate bonds held by the scheme.

The results are as follows:

	£m
Total liabilities	850
Total assets	750
Surplus/(deficit)	(100)

The ongoing Projected Unit cost of benefits is 25.0% of basic payroll.

Total basic payroll at 31 October 2006 was £60m.

The Trustees have asked the Company to pay £100m into the scheme immediately in addition to regular ongoing contributions of 25% of basic payroll.

The Finance Director has put forward a counter proposal to pay a series of deficit contributions over the next 15 years equal to £6m per annum for the first 10 years and £12m per annum for the next 5 years. In addition, the regulator contributions of 25% of basic payroll will be paid.

(i) List the factors to be taken into account in determining a Recovery Period. [3]

(ii) List the powers that the Pensions Regulator has if a Recovery Plan cannot be agreed between the Trustees and the Company. [2]

(iii) Explain what is meant by the Company's covenant. [2]

(iv) State five methods by which the Trustees could assess the Company's covenant, indicating an advantage and disadvantage of each. [10]

(v) Outline the options available to the Trustees if they believe that the Company is in financial distress. [3]

(vi) Recommend with reasons whether the Trustees should accept the Company's counter proposal. [3]

The Company takes advice from a different firm of actuarial advisers and has just published its accounts for the year ended 31 December 2006.

The pension disclosures in accordance with IAS19 showed a net asset of £20m on the balance sheet and a profit and loss charge for 2006 of £2m.

(vii) The Trustees have asked you to explain why the figures shown in the IAS19 disclosures are so different to the ongoing funding valuation position.

Outline the points you would make in your response to the Trustees. [12]

The Finance Director is a Trustee of the scheme.

(viii) Summarise the advantages of having the Finance Director on the Trustee Board. [2]

(ix) Outline the potential conflicts of interest that the Finance Director may face in his role as Trustee, and suggest ways in which these conflicts of interest could be managed. [5]

[Total 42]

END OF PAPER