EXAMINATION

26 April 2010 (pm)

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 before 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 four 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 from the approved list.

1 A UK employer sponsors a defined benefit pension scheme.

(i) Outline the principal requirements for disclosing pension costs in the employer's accounts. [7]

(ii) List the additional disclosures required in respect of directors' pension arrangements. [2]

(iii) Explain how the nature and extent of risk relating to a pension liability should be disclosed. [5]
[Total 14]

2 The following is a summary of the results of a recent actuarial valuation of UK final salary pension scheme that has been closed to new members for 10 years. The results of the valuation carried out one year earlier are shown in brackets.

Projected Unit Method Accrued Liabilities:

Pensions in payment	£100m (£80m)
Deferred pensioners	£55m (£50m)
Active members	£20m (£30m)
Assets	£150m (£140m)

Standard Contribution Rate is 25% of Pensionable Salaries (inclusive of 5% member contributions).

Total Pensionable Salaries at the previous valuation date were £10m per annum.

Financial Assumptions (same for both years):

Inflation	3.0% per annum
Discount Rate	6.0% / 4.0% per annum, pre and post-retirement respectively
Pension Increases	2.5% per annum
Salary Increases	4.5% per annum

Demographic Assumptions (same for both years):

No pre-retirement decrements
Post-retirement mortality in line with current tables for UK pension schemes

You have also been provided with the following information about the inter-valuation period:

- Member contributions: £0.5m
- Employer contributions: £4.5m
- Pension payments: £4.0m
- No active or deferred members died during the year
- No members transferred out during the year

- The number of pensioner deaths was broadly in line with demographic assumptions

- Salary increases, inflation and pension increases were in line with the financial assumptions.

(i) Estimate the following items:

    (a) the reduction in active liabilities due to leavers and retirements over the year

    (b) the increase in deferred liabilities due to active leavers over the year

    (c) the increase in pensioner liabilities due to retirements over the year

    stating any assumptions you make. [6]

(ii) Suggest likely reasons for the results obtained in part (i). [3]

Further investigations have identified that a senior executive whose Pensionable Salary at the previous valuation date was £1.0m per annum had retired 10 years early just before the valuation date. He had completed 15 years' pensionable service but was credited with a pension of two-thirds of Pensionable Salary, which is the full pension to which he would have been entitled at his original retirement date in a further 10 years' time. Furthermore, no actuarial reduction was applied to his pension. No allowance had been made for this previously in the funding of the scheme.

(iii) Estimate the strain on the scheme caused by this member's early retirement and comment on your result. [3]

(iv) Complete an analysis of the change in deficit over the year. [6]

(v) Discuss how the trustees might prevent such significant early retirement strains arising in the future. [6]

[Total 24]

3 A large manufacturing company operates a mature defined benefit (DB) pension scheme which has been closed to most new entrants for five years. New executive employees continue to be included in this DB pension scheme. All other new employees are included in a defined contribution (DC) pension scheme.

The DB pension scheme has adopted a primarily equity based investment strategy. The individual members of the DC pension scheme have also opted to invest their funds mainly in equities. Lifestyling is not available in the DC pension scheme.

Since the closure of the DB pension scheme, equity market performance has been poor.

(i) Discuss the risks for the employer of prolonged poor performance in equity markets for both the DB and the DC pension schemes. [9]

(ii) Discuss the equivalent risks for the members. [5]

(iii) Suggest measures the trustees of the DB pension scheme could have taken at the point of its closure in order to reduce the risk of the scheme suffering significantly as a result of prolonged poor equity performance. [7]

[Total 21]

4 A defined benefit pension scheme is closed to new members. The latest valuation of the scheme as at 1 January 2009 showed that the assets were sufficient to cover its technical provisions measured using the FRS17 accounting standard.

The balance sheet on the FRS17 accounting basis as at 1 January 2009 is set out below:

Active members	£20m
Deferred pensioners	£50m
Pensions in payment	£250m
Total Liabilities	£320m
Assets	£320m
(65% equities, 35% AA corporate bonds)	

The sponsoring employer has become concerned about the volatility of the disclosures of the pension scheme liabilities in its annual accounts.

(i) Outline the steps that the sponsoring employer could take in order to remove or reduce the volatility of these disclosures. [4]

A major shareholder has suggested that the sponsoring employer should discuss with the trustees of the pension scheme the possibility of purchasing annuities from an insurance company to secure the full benefits of some (e.g. a category) or all of its members as soon as possible.

(ii) Discuss the general factors, and those specific to the trustees and the sponsoring employer, to consider in assessing the feasibility of this suggestion. [8]

The sponsoring employer wishes to investigate securing the pension scheme benefits with an insurance company.

(iii) Discuss how the range and quality of the data held by the scheme may affect the quotation process and the premium that would be payable. [10]

The sponsoring employer has agreed with the trustees to obtain quotations from various insurers on the costs of insuring members' accrued benefits. Two insurers have quoted as follows:

(a) Insurer A would only be willing to issue an immediate annuity policy in respect of the scheme's current pensions in payment. The trustees would be the policyholder and they would hold the annuity policy alongside the scheme's other investments. The cost of securing immediate annuities for the pensions in payment would be £240m;

(b) Insurer B would do a full buyout by taking on all the liabilities but with some risk remaining with the pension scheme until the buyout is finalised. The cost would be £360m.

(iv) Discuss the advantages and disadvantages of each of these two options to the trustees and the sponsoring employer. [15]

(v) Outline possible reasons for the attractiveness in the price of Insurer A's proposal compared to the value of the pensioner liabilities on the FRS17 accounting basis. [4]

[Total 41]

END OF PAPER