EXAMINATION

6 October 2009 (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 scheme's latest funding valuation was carried out as at 5 April 2007. At that time the sponsoring employer's covenant was reasonably strong, based on a net asset value of £150m. The Technical Provisions for the Scheme were set using the assumed return on corporate bonds. The valuation revealed a shortfall of assets against Technical Provisions of £100m. The Trustees and the Company agreed to repair the deficit with level annual contributions over 10 years. The Scheme's current investment strategy is to invest 65% of its assets in equities and 35% in corporate bonds.

The Trustees employ an accountancy firm to reassess the employer's covenant annually. Their latest report shows that since the last valuation, the covenant has deteriorated significantly. The employer is struggling to meet the interest payments on its debts and its net asset value has fallen to £50m.

Discuss the actions the Trustees might take in response to the change in covenant, commenting on the suitability of these actions. [12]

2 The formal actuarial valuation of a large defined benefit pension scheme of a major UK bank with more than 40,000 pensioners is due this year and the Trustees have asked their Scheme Actuary for advice on selecting an appropriate post-retirement mortality assumption for the funding valuation.

(i) Explain why post-retirement mortality is an important assumption. [2]

(ii) Describe the developments in the industry standard mortality tables and mortality projection methods over the last ten years. [7]

(iii) Explain how the Scheme Actuary would determine the post-retirement mortality assumptions to recommend to the Trustees for the funding valuation. [6]

A UK actuarial consultancy has carried out a survey of the post-retirement mortality assumptions used by trustees of UK pension schemes for their latest funding valuation. One of the Trustees suggests that they should adopt the most common allowance for future improvement in life expectancy identified by this survey.

(iv) Discuss whether this suggestion is appropriate. [5]
[Total 20]

3 A privately owned company sponsors a defined benefit pension scheme. The Scheme has been closed to new members for several years and the only employees with benefits in the Scheme are a handful of long-serving executives. The Scheme was closed to future accrual with effect from 30 June 2008. All active members at this date became deferred pensioners.

The Company's owners are investigating the cost of buying out the Scheme's liabilities as they wish to prepare the business for sale next year. They believe the Company will be more attractive to potential purchasers without the associated defined benefit pension scheme.

An actuarial valuation of the Scheme was carried out as at 30 September 2006. As part of the valuation the Scheme Actuary estimated that the Scheme's balance sheet on a discontinuance basis was as follows:

Active liabilities	£10m
Deferred liabilities	£65m
Pensioner liabilities	£85m
Expenses	£8m
	£168m
Assets	£100m
Deficit	£68m

The Scheme Actuary's estimate used the following assumptions:

Discount rate for pensioners	4.0% per annum (gilt yield minus 0.5% per annum)
Discount rate for non pensioners	3.5% per annum (gilt yield minus 1.0% per annum)
Inflation	3.0% per annum
Expenses	5% of liabilities

For the avoidance of doubt the discount rate for non pensioners applied both before and after retirement.

The following summary data is available from the valuation report:

- The pensioner payroll at 30 September 2006 was £6m per annum.
- Total pensionable salaries at 30 September 2006 were £1m.
- The Scheme's normal retirement age is 65 and pensions increase in line with price inflation both in deferment and after retirement.
- The ongoing future service cost was 20% of pensionable salaries. This was calculated as the projected unit rate using discount rates of 6.0% per annum pre-retirement and 5.0% per annum post-retirement, with a salary growth assumption of 1.5% per annum above inflation. All other assumptions were the same as for the discontinuance estimate.

At 31 March 2009 the relevant gilt yield was 4.75% per annum. Inflation on a consistent measure to that used for the 30 September 2006 valuation was 3.6% per annum.

(i) Estimate the discontinuance liabilities of the Scheme at 31 March 2009 on a basis consistent with that used for the discontinuance 30 September 2006 valuation, stating any assumptions you make. [15]

The Company obtain a quotation of £135m for securing the Scheme's liabilities from an annuity provider.

(ii) Discuss why the quotation for securing the Scheme's liabilities may differ from the figure you estimated in (i). [17]

[Total 32]

4 A Company sponsors two defined benefit pension schemes in the UK — Scheme A and Scheme B. The pension schemes provide different levels of benefits, have different valuation dates and the respective Trustees have separate professional advisers. Neither Scheme is contracted-out. The Company is proposing to merge the schemes. The Company's proposals are:

- The assets and liabilities of Scheme A would be transferred to Scheme B without members' consent.
- There would be no change to any members' past service benefits.
- A new section under Scheme B would be established for former members of Scheme A. The past service benefits in this new section would mirror those in Scheme A; and
- The Company would amend future service benefits — the only change would be a reduction to the accrual rate for all members.

The most recent actuarial valuations for each scheme showed assets and technical provisions as follows:

	Scheme A	*Scheme B*
Effective date	*1.10.08*	*1.4.09*
Assets	£160m	£160m
Technical provisions	£240m	£180m

(i) Suggest reasons why the Company might be proposing the merger. [4]

(ii) Discuss the legal, actuarial, investment and practical issues in relation to past service benefits that the Trustees of Scheme A will need to consider before agreeing to the proposed merger. [15]

(iii) Discuss how the considerations in (ii) may differ from those of the Trustees of Scheme B. [6]

(iv) Outline the issues in relation to future service benefits that the Trustees of each scheme will need to consider. [3]

The Trustees of each scheme have agreed to the merger after much negotiation with the Company.

(v) Outline the issues the Scheme Actuary of Scheme A needs to consider when preparing her GN16 certificate. [8]

[Total 36]

END OF PAPER