INSTITUTE AND FACULTY OF ACTUARIES

EXAMINATION

11 April 2016 (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 answer in the booklet until instructed to do so by the supervisor.*
4. *Mark allocations are shown in brackets.*
5. *Attempt all three questions, beginning your answer to each question on a new page.*
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 The funding valuation of a UK defined benefit pension scheme is due to be carried out. The Trustees consider the sponsoring employer to have a strong covenant. The Scheme is revalued career average, closed to new members and open to benefit accrual. Pensions increase in line with Retail Price Inflation subject to a 5% cap per annum before retirement and in payment.

(i) Describe the actuarial professional standards that apply when the Scheme Actuary advises the Trustees in connection with the actuarial valuation. [12]

Market yields at the valuation date are as follows:

	Per annum
20 year conventional gilt yield	2.5%
20 year index-linked gilt yield	−0.5%
20 year AA corporate bond yield	3.5%
Global equity dividend yield	3.0%

60% of the liabilities are in respect of pensions in payment. The pension scheme's assets are as follows:

Global equities	£250m
Long dated UK corporate bonds	£150m
TOTAL	£400m

(ii) Derive, giving reasons, a set of financial assumptions that the Trustees could use to calculate the technical provisions at the valuation date. [6]

(iii) Set out the information that the Scheme Actuary requires to carry out the valuation in addition to individual member data. [8]

(iv) Set out the main risks that the Scheme is subject to. [4]

The Trustees commission an employer covenant review, which concludes that the covenant is, in fact, weak.

(v) Describe the investigations the Trustees might undertake in response to this information. [6]

(vi) Describe the actions the Trustees could take to reduce the risks identified in part (iv). [8]

After consideration of the Scheme's investment strategy, the Trustees decide to switch the Scheme's investments to 30% global equities, 70% index-linked gilts.

(vii) Explain why it is appropriate to review the scheme's investment strategy at periodic intervals. [4]

(viii) List eight items that are usually included in the Statement of Investment Principles. [4]

Before the change of investment strategy, the PPF funding position of the Scheme set out in the relevant Scheme Return, was as follows:

Value of Liabilities

Actives	£120m
Deferreds	£150m
Pensioners	£180m
TOTAL	£450m

Value of Assets £400m

The insolvency risk of the employer is 0.53% and the duration of the Scheme's liabilities is 25 years.

(ix) Describe the formula for calculating the PPF risk-based levy. [2]

(x) Estimate the change in the PPF risk-based levy as a result of the change in investment strategy. You may ignore the impact of smoothing assets and PPF liabilities when calculating the risk-based levy. [4]
[Total 58]

2 The Trustees of a UK Final Salary pension scheme, which is closed to benefit accrual, are reviewing the assumptions they use to calculate cash equivalent transfer values (CETVs).

(i) Describe the principles that apply to the calculation of CETVs. [4]

The funding position of the scheme on a technical provisions basis is as follows:

Assets	£22m
Liabilities	£18m
Surplus	£4m

The Board of Directors of the sponsoring employer has proposed that the Trustees should enhance the CETV basis such that transfer values are 5% higher than a member's technical provisions.

(ii) Suggest reasons why the Board may have proposed this. [5]

The Managing Director requests a transfer of his benefits to a defined contribution scheme. The Managing Director's accrued pension is £62,000 per annum and the transfer value offered is £1.6 million on the enhanced basis. The Director is aged 61 and the Scheme's normal retirement age is 65.

(iii) Suggest reasons why the Managing Director may want to transfer out of the Scheme. [5]

(iv) Describe the risks faced, by both the Managing Director and the Scheme, if the transfer proceeds. [6]
[Total 20]

3 The sponsoring employer of a UK final salary pension scheme informs the Trustees that it proposes to close the Scheme to future benefit accrual.

(i) Describe the financial impact this would have on the members of the Scheme. [8]

The Scheme's trust deed and rules state that, if the Scheme is closed to benefit accrual, the Trustees have the option to trigger a wind-up of the Scheme, or to continue to operate the Scheme as a closed fund.

(ii) Discuss the issues the Trustees should consider before agreeing to the proposal to close the Scheme to benefit accrual. [7]

The Trustees agree to the closure proposal.

(iii) Discuss the actions the Trustees may wish to take in order to safeguard members' interests following the closure. [7]

[Total 22]

END OF PAPER