EXAMINATION

22 September 2008 (pm)

Subject SA2 — Life Insurance 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 both 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 Company X is a UK proprietary life insurance company that writes a full range of with profits, conventional without profits and unit-linked business. Company X is structured with two separate sub-funds. All unit-linked business is written in Fund A, a 100% shareholder owned sub-fund. All other business is written in Fund B, a with profits sub-fund from which profits are shared in the ratio 90:10 between with profits policyholders and shareholders. Both funds are well capitalised and Company X has good financial strength.

(i) Outline the areas of management discretion that would be covered in the company's PPFM. [15]

(ii) List other areas where Company X could exercise discretion in its management of in-force policies. [4]

A senior actuary from another country has written to the With-Profits Actuary of Company X. He says that he has heard about the introduction of PPFM documents in the UK and is considering recommending their introduction in his country, together with the associated regulation.

(iii) Discuss the points that the With-Profits Actuary could make in his response. [11]

Company Y is another UK proprietary life insurance company. It has written only with profits and conventional without profits business in the past, but is no longer open to new business. It has only one fund, from which profits are shared in the ratio 90:10 between with profits policyholders and shareholders.

Company Y has approached Company X to discuss a merger. Two potential post-merger structures have been suggested:

Option I: Transferring the business of Company Y into Fund B of Company X.

Option II: Creating a new sub-fund, Fund C, within Company X and transferring the business of Company Y into this new sub-fund.

(iv) Describe the statutory transfer of liabilities process that the companies would have to follow for either of these options under the Financial Services and Markets Act 2000. [6]

(v) Discuss the advantages and disadvantages of Option II relative to Option I. [12]

It has been suggested that the with profits asset share calculation methodologies of Company X and Company Y should be brought into line following the merger.

(vi) (a) Describe areas of the asset share calculation methodology that might currently differ.

(b) Discuss the suggestion. [11]

Company X is also carrying out a review of the reinsurance arrangements that would need to be in place for all of the term assurance business following the merger. Currently it has in place an original terms reinsurance contract under which it retains 80% of the sum assured up to £500,000, with everything above this being ceded to the reinsurer. Company Y has a similar arrangement for its term assurance business, but it retains 20% of the sum assured up to £100,000, with everything above this being ceded to the reinsurer.

(vii) Describe the factors that might have led to these differences in the current reinsurance arrangements. [10]

One of the Directors of Company X has suggested that the company should not renew its catastrophe reinsurance treaty, given the number of exclusions that the treaty contains.

(viii) Discuss this suggestion. [6]

[Total 75]

2 (i) Outline the reasons why a life insurance company might perform solvency projections. [3]

A UK proprietary life insurance company has been writing increasing volumes of unit-linked business for the past few years. The company has a small portfolio of immediate annuities that are no longer sold. The unit-linked business and the annuities are written in the Long Term Fund. The company has a separate Shareholder Fund, which owns the Head Office property.

The draft business plan projects further increases in new unit-linked business. The results of the most recent supervisory valuation of the Long Term Fund and Shareholder Fund, and the business plan projections for the next three years are shown below.

£m	***Actual 31/12/07***	***Projected 31/12/08***	***Projected 31/12/09***	***Projected 31/12/10***
Shareholder Fund				
Head Office Property	7	8	9	10
Other Assets	68	62	55	45
Total Shareholder Fund (before proposed dividend)	**75**	**70**	**64**	**55**
Proposed Dividend	(10)	(11)	(12)	(13)
Total Shareholder Fund (after proposed dividend)	**65**	**59**	**52**	**42**
Long Term Fund				
Assets				
Unit-Linked Assets	1950	2260	2570	2880
Cash/Deposits	40	15	5	10
Fixed Interest Bonds	60	55	45	40
Total Admissible Assets	**2050**	**2330**	**2620**	**2930**
Liabilities				
Unit Linked Policies:				
Unit-Linked Liabilities	1950	2260	2570	2880
Non-Unit Reserves	(25)	(35)	(40)	(40)
Immediate Annuities	55	50	45	40
Total Mathematical Reserves	**1980**	**2275**	**2575**	**2880**
Long Term Fund Pillar 1 Peak 1 surplus	70	55	45	50
Minimum Capital Requirement	7	7.5	8	8.5
Long Term Fund Available Surplus	63	47.5	37	41.5
Analysis of Surplus arising in Long Term Fund				
New Business Strain over the year	(20)	(25)	(30)	(35)
In Force Surplus over the year	5	10	20	40

The Finance Director has commented that the Long Term Fund is very solvent, with an excess of surplus, and that it would be useful if transfers of capital could be made to support higher future dividends.

(ii) Discuss the issues that would be included in any response to the Finance Director. [9]

(iii) Discuss the options open to the company if it wishes to improve its ability to pay dividends. [13]
[Total 25]

END OF PAPER