EXAMINATION

11 September 2006 (am)

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 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 A UK life insurance company has for many years distributed its products solely through Independent Financial Advisers (“IFAs”) who have been paid commission. An industry survey projects that in five years time as much as 30% of UK business that is currently sold through the IFA channel may come through multi-tied arrangements. As a result it is now considering whether to participate in a multi-tied arrangement with a small number of other product providers.

Under the proposed terms of the arrangement, the company will undertake to pay higher commission to advisers within the multi-tie than to IFAs. In return, advisers who are members of the multi-tie undertake to only place business with participating companies.

(i) Discuss the issues that the company should consider in order to decide whether or not to join the multi-tied arrangement. [19]

(ii) Describe the investigations that should be undertaken and the information required in order that the company can make a decision. [11]
[Total 30]

2 A UK proprietary life insurance company has two long-term insurance business funds, a 90:10 with profits fund of £5bn and a without profits fund.

The without profits fund consists of roughly equal numbers of unit-linked savings and term assurance policies. The capital in this fund is well in excess of its statutory requirements.

(i) Describe the possible courses of action available to the company as a result of this capital position. [6]

The only business that has ever been written in the with profits fund is conventional with profits endowment assurances. Some of the endowment assurance policies contain an option to convert the policy to an annuity at maturity on guaranteed terms. Over recent years the flow of new business into the with profits fund has significantly reduced. As a consequence the company has decided to close this fund to new business and wishes to use financial projections to model its future position.

(ii) (a) Outline how the company could carry out such a modelling exercise. [9]

(b) Describe how it could develop the necessary assumptions to project the investment returns on the assets in the with profits fund. [6]

(c) Discuss the issues it should consider in determining how to run off the assets of the closed fund. [8]

(iii) Describe how the option to convert the policy to an annuity at maturity on guaranteed terms would be valued in the calculation of liabilities under Pillar 1 and how the option liabilities would be presented in the regulatory returns. [8]

It is proposed that the company should make an offer to all with profits policyholders. The terms of the offer are that it would make a one-off enhancement to asset shares of policyholders with the annuity option in lieu of giving up the option. The cash for this offer will be provided by the estate.

(iv) Describe the concerns that the Actuarial Function Holder and the With-Profits Actuary might have about the proposed course of action, making reference to relevant professional guidance where appropriate. [8]
[Total 45]

3 A new UK life insurance company sells only one life insurance product. The product is a regular premium unit-linked whole life policy where the product benefits are as follows:

- A guaranteed minimum amount on death which is set at the start of the policy and then increases in line with CPI. The amount payable on death is the higher of the guaranteed amount and the unit fund value.

- A surrender value equal to the value of units, but subject to a surrender penalty during the first six years.

The charging structure is of a similar form to the established market for this kind of contract. The only charges that apply to this product are:

- An annual management charge, which is a fixed percentage of the unit fund and cannot be changed for a policy once the policy has been written.

- A mortality charge. This is deducted by cancelling units each month. The charge is calculated by applying age, sex and smoker status related rates to the sum at risk (the then guaranteed sum assured less the current fund value). The rate used is appropriate to the age that applies at the time of calculation. The rates are set at outset and cannot be changed once a policy has been written.

- The surrender penalty.

The premium level is set by the company for a given sum assured. Whilst this is primarily a protection policy, it is designed to have material surrender values at most durations.

(i) Describe briefly how the profits would be calculated on the Modified Statutory Basis and the Achieved Profits Method, and how the profits are likely to emerge under the two methods over the life of a policy. [8]

It is now early 2006 and the company has been writing this business for seven years. The company's primary profit reporting measure is the Achieved Profits Method. Under this method it has recently seen a significant decrease in profits due to its persistency experience being much worse than expected.

(ii) Discuss the possible reasons for this and the actions that the company might take to mitigate this risk. [12]

(iii) It has been suggested that the assumptions used in the achieved profits calculation need to be changed in the light of the recent persistency experience. Discuss this suggestion. [5]

[Total 25]

END OF PAPER