EXAMINATION

6 September 2005 (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 bank is about to launch an equity release product where the initial level of the loan accumulates at a variable rate of interest set by the bank. The accumulated debt will be repaid to the bank on the death of a customer from the proceeds of the sale of the customer's UK residential property. The maximum loan is a fixed proportion of the market value of the property at the time of taking out the equity release.

To provide the customers with peace of mind, they will be allowed to pay a single premium to provide a "no negative equity" guarantee that the debt will not exceed the market value of their property on death. This guarantee will be provided by the issue of a corresponding whole life assurance policy by a UK life insurance subsidiary of the bank. The policy will pay, on death, any excess of the accumulated debt over the market value of the property at the time of death.

(i) Discuss the risks to the life insurance subsidiary resulting from the launch of this product. [12]

(ii) Outline how these risks could be reduced. [6]

(iii) Describe how the supervisory reserves for this policy should be calculated and the assumptions that would be required to do this. [8]
[Total 26]

2 A UK life insurance company currently sells without profits protection and unit-linked savings contracts through insurance intermediaries. It is considering expanding its business overseas in order to increase sales and profits.

(i) Describe the main factors the company should consider in selecting a suitable overseas country. [16]

The company is considering two possible countries in which it could legally distribute its products:

Country A has a significantly smaller population than the company's home market. There is a less mature market for life insurance products, and this is dominated by one state-owned company. Distribution is through bank branches of a nationalised bank. Individual personal wealth is significantly higher than in the company's home market although personal taxes are also higher.

Country B has a significantly larger population than the company's home market and a highly competitive market with a large number of life insurance companies. Distribution has historically been mainly through tied salesforces, although there are a small and increasing number of insurance intermediaries. Individual personal wealth is lower than in the company's home market, as are levels of personal taxation.

(ii) Describe separately the potential for the company to meet its objectives in launching its products in each of Country A and Country B. [14]
[Total 30]

3 A UK mutual life insurance company distributes surplus to conventional with profits policies by the addition to benefits method. The company calculates its reserves for statutory reporting purposes for these policies using a net premium valuation method. A director has suggested that in order to increase the company's free assets, the reversionary bonus rates should be reduced from 4% of the basic sum assured plus existing bonus to 2%. He says that the increased free assets can then be used to write higher volumes of new business.

(i) Discuss this suggestion. [15]

A second director has criticised the net premium valuation method for being insensitive to changes in the market value of assets and for failing to reflect adequately the likely future payouts on the policies.

(ii) Discuss this criticism. [6]

The director has suggested two alternative approaches to calculate the reserves:

- A gross premium method where the reserve is equal to the value of the basic sum assured, reversionary bonus declared to date, future expected reversionary bonus and future expected expenses less the value of the future expected office premiums.

- The earned asset share.

(iii) Discuss these suggestions and the extent to which they address the criticism of the net premium valuation method. [23]

[Total 44]

END OF PAPER