EXAMINATION

14 April 2008 (pm)

Subject SA2RSA — 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.

Question 1

A large South African life insurance company markets a range of simple risk and investment products aimed at the lower income market. Their most successful risk product is an individual life family funeral product (non-profit). There has recently been a decline in new business volumes of this funeral product. The only benefit payable under the funeral product is the sum assured which is paid on the death of any of the originally specified family members.

(i) Discuss possible reasons for the reduction in new business volumes. [15]

(ii) A director of the life insurance company has made a number of proposals aimed at increasing the new business volumes in respect of funeral business. Discuss each of these proposals separately, including, where appropriate, the factors which would impact on the terms which could be offered, refinements (if any) which could be made to the proposal and the risks to the company from making the changes.

The proposals made are as follows:

(a) The director has proposed that the product be priced on a marginal cost basis (i.e. overhead expenses would be excluded from the expense loading in the premium rates). [7]

(b) The company currently guarantees that premiums will remain unaltered during the term of the policy. The director has suggested that the company introduce an alternative policy under which premiums can be reviewed at the company's discretion in line with actual claims experience. [11]

(c) The director has proposed introducing an option that allows the policyholder to increase the sum assured at any policy anniversary by 5%, 10% or 15% with premiums increasing at the same rate without additional underwriting. [8]

(d) The director has proposed reducing the risk discount rate being used when pricing the product. [8]

(e) The director has suggested expanding the maximum number of family members covered without changing the premium rates. [2]

(f) The director has suggested that the company should implement a "no claims bonus" whereby six months' premiums will be paid every 5 years in the event that no claims have been made on the policy during the 5 year period [4]

[Total 55]

Question 2

A South African proprietary life insurance company (Company A) is investigating establishing an operation in another African country. A European proprietary company (Company B) has a subsidiary life insurance company (Company C) in this African country and has recently indicated its intention to sell the company.

Company C sells with and without profits business, and distributes surplus to its with profits policyholders using reversionary and terminal bonuses. All surpluses arising in Company C are shared between with profits policyholders and shareholders in the ratio 90:10 (which is the maximum in terms of current legislation in the country concerned).

You are a consulting actuary who has been asked to advise Company A on the potential purchase of Company C.

(i) Discuss the advantages and disadvantages to Company A of purchasing Company C rather than setting up a new operation in the African country. [10]

(ii) You have been provided with the last 3 year's financial statements, statutory returns and annual actuarial reports (valuation and Embedded Value) of Company C. Company A has asked you to produce a report to help them determine whether or not to purchase Company C and if so, what an appropriate purchase price would be.

(a) List the additional information that you would request from Company C. [7]

(b) Describe how you would calculate the Embedded Value of Company C for purposes of this potential purchase. [10]

(c) Discuss what you would incorporate in your report, with particular emphasis on recommending an appropriate price. [18]

[Total 45]

END OF PAPER