EXAMINATION

27 May 2013

Subject F202 — Life Insurance Specialist Applications

Time allowed: Three hours

INSTRUCTIONS TO THE CANDIDATE

1. Candidates will be issued with instructions to log-in using a password (which you will be provided with at the exam center).

2. Candidates are required to submit their answers in Word format only using the template provided.

3. Save your work continuously throughout the exam, on your computers' hard drive that you have been provided.

4. 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.

5. You must not start typing your answers until instructed to do so by the invigilator/supervisor.

6. Mark allocations are shown in brackets on exam papers.

7. Attempt all questions, beginning your answer to each question on a new page.

8. Candidates should show calculations where this is appropriate.

Note: The Actuarial Society of South Africa will not be held responsible for loss of data where candidates have not followed instructions as set out above.

AT THE END OF THE EXAMINATION

Save your answers on the hard drive.

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 small listed South African life insurance company's actuarial statement on 31 December 2012 showed the following:

Actuarial Statement	R mil
Value of assets	1 325
Value of liabilities	1 053
Excess of assets over liabilities (NAV)	272
Capital Adequacy Requirement	
Statutory excess	272
CAR	103
CAR Cover	2.64 X

You are the statutory actuary of this insurer. The insurer has been approached by an asset manager with a proposal to invest approximately R 2 billion with the insurer on behalf of a client. The investment will be a unit-linked policy issued by the insurer, but with the assets underlying the unit-linked fund (which will only be linked to this particular policy) still being managed by the asset manager. The insurer will only be responsible for issuing and administering the policy. The client of the asset manager will be the policyholder and proposes to pay a fee of 0.3% per annum of the value of the portfolio to the insurer for issuing and administering the policy. Assume no initial expenses or fees. The surrender value of the policy will equal to the market value of the investment in the unit-linked portfolio. The policy does not offer any guarantees.

(i) Describe and estimate the expected impact of the proposal on the following (include high level calculations and assumptions) :
- The statutory solvency, considering each component of CAR separately [24]
- The operating profit and cost of CAR [4]

(ii) Discuss the factors that the insurer should consider in assessing this proposal. [7]

[Total 35]

PLEASE TURN OVER

QUESTION 2

You work for a South Africa life insurance company which sells a range of products including risk-only whole of life assurance (WOL), risk-only term life assurance and group life assurance.

(i) With regards to the three products set out above :

- Contrast their attributes and; [10]
- Compare the investment and mortality risks posed to the company through offering these products [15]

[Consider life cover only and ignore any unit-linked or with- profits products]

(ii) Describe how the HIV / AIDS risk differs between the individual life policies and group life policies set out above and how these are managed. [10]

[Total 35]

QUESTION 3

An established life insurance company sells only life and pension unit linked business. A large portion of the unit fund value is from unrealised capital gains that have gradually built up over a number of years.

Early in 2012, National Treasury announced a change in capital gains tax, which will be effective from 1 March 2012. The inclusion rate for capital gains tax increased from 25% to 33.3% in the Individual policyholder fund and from 50% to 66.67% in the Company policyholder and Corporate funds.

(i) Discuss the implications and likely consequences of this change on the policyholders and the life company. [22]

Subsequent to this, National Treasury proposed that a deemed disposal and re-acquisition be applied to all policyholder funds, applicable to all unrealised gains and losses arising before 1 March 2012. The new higher inclusion rates will then only apply to capital gains from 1 March onwards.

(ii) Describe the impact of this proposal on the policyholders and shareholders. [8]

[Total 30]

[Grand Total 100]

END OF PAPER

