

Actuarial Society of South Africa

EXAMINATION

1 November 2013 (am)

Subject F205 – Investment 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 computer's hard drive with which 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 (these could be copied from Excel into Word).*

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.

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| <p>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.</p> |
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Question 1

LifeCo is a life office that sells a wide range of life insurance products and has a sizable post-retirement annuity book. The company sells all types of annuities to institutional and retail clients. LifeCo has an in-house asset management company, Asset ManCo. All investment portfolios are managed according to agreed guidelines between LifeCo and Asset ManCo.

You are the portfolio manager of all the annuity portfolios.

- i) State, giving the reasons for their suitability, which assets you would expect to be allowed in the guidelines for the portfolios that back the liabilities of the following types of annuities:
- CPI-linked life annuity
 - Guaranteed 5% increasing life annuity
 - With profit life annuity
 - Living annuity

[12]

- ii) With particular reference to interest and inflation rates discuss what effect the current economic environment has on:
- The providers of existing and new issuances of annuity products?
 - The clients in existing and new issuances of annuity products?

[5]

- iii) LifeCo would like to improve its offering to clients and has asked you to investigate increasing the investment returns by means of adding credit exposure to the portfolios backing life annuities.

- Explain the various ways in which this could be achieved in practice for each of the life annuity products.

[6]

- Discuss the factors that LifeCo should consider before deciding to add significant credit exposure to its life annuity products.

[5]

- Describe the role of rating agencies and list the factors they consider in formulating their rating of a company or its debt issues.

[7]

- Describe in detail how credit risk of an instrument is modelled including the estimation of the various parameters required.

[9]

[TOTAL 44]

PLEASE REMEMBER TO SAVE

Question 2

You are an investment portfolio manager who has been tasked to start a new Regulation 28 compliant unit trust for the retirement annuity market. A modest amount of R 50 million has been provided as seed capital and net inflows are expected to be around R 60 million per month during the first year. Investors are likely to be a combination of institutions and individuals with a wide range of investment amounts.

- i) Describe the unique risks that you would face in the first year of setup and the actions you would take to mitigate them.

[TOTAL 14]

Question 3

From 1 January 2014 the Financial Services Board (FSB) will require insurers to have an Investment Policy in place. (There will also be a separate Asset Liability Management Policy.)

- i) Describe the matters that should typically be covered in an investment policy for a life insurer offering a full range of life insurance products with specific reference to

- a. The investment management philosophy and principles

[13]

- b. The approach to investment risks

[13]

- c. The investment management arrangements and the governance framework

[16]

[TOTAL 42]