EXAMINATION

9 May 2024 (am)

Subject A311 — Actuarial Risk Management Core Principles

Paper One

Time allowed: Three hours and fifteen minutes (which includes 15 minutes of reading time), plus an additional five minutes to allow for scrolling on the ASSA Exam Platform

Total marks: 100

INSTRUCTIONS TO THE CANDIDATE

1. *Ensure that you are logged in and authenticated through Examity before you attempt the examination.*
2. *The question paper is only available on the ASSA Exam Platform as a PDF download and may not be printed. Copy/paste of questions or parts thereof is allowed from the question paper to your Word answer document only.*
3. *Download the Word answer document template from the ASSA Exam Platform. Save this Word answer document on your desktop using your Candidate Number as filename. You are required to submit your answers in Word format ONLY using this document. No answers in any other format (e.g. handwritten) will be accepted. Save work regularly.*
4. *Ensure that your Candidate Number appears in the "header" of your Word answer document. [Double-click on the header at the top of the Word document, input your Candidate Number only in the header, then press "Esc" to close the header.]* ***Do not use your name or member number anywhere in your Word answer document.***
5. *You may not access any file from your computer, use any other computer program (e.g., Email or Excel), or open any other browser during the examination. Nor may you use Grammarly, Grammarly Premium or similar add-ins. Microsoft Word spellcheck is allowed.*
6. *You may not use any other material (e.g., a Formulae and Tables book) during the examination. Any such information that may be required will be provided to you within the examination.*
7. *You are strongly encouraged to use the first 15 minutes as reading time only, however, you may start answering the paper whenever you are ready.*
8. *Mark allocations are shown in brackets.*
9. *Attempt all questions, starting each on a new page (as provided for in the Word answer document).*
10. *Show calculations where appropriate. You may use blank paper to carry out rough work calculations. You may use a calculator from the ASSA-approved list only.*
11. *Upload your Word answer document only into the ASSA Exam Platform. Once you have uploaded your document, you must click on* ***Finish Attempt*** *to save your document. You will still be allowed to go back and make changes (****Review Attempt****) if you have time.*
12. *Once you are satisfied with your uploaded document, click* ***Finish Attempt*** *and* ***Finish all and Submit****. Once you have submitted, you will not be able to make any changes.*
13. ***You must submit your Word answer document BEFORE the end of the allotted examination time.*** *You should stop writing and start uploading during the last five minutes. Take this into account when planning your review and submission. There will be no time announcements.*

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.

END OF INSTRUCTIONS

QUESTION 1

Nombuso, aged 68, recently suffered from a severe, but non-fatal, stroke while working in her only child's garden. Fortunately, she has comprehensive versions of the following health insurance policies:

- Private medical insurance (i.e. she is a member of a medical scheme)
- Critical illness cover
- Long-term care cover

Discuss how Nombuso could benefit from claims under each type of product and the financial protection provided to her related to the stroke.

[Total 10]

QUESTION 2

A defined benefit pension fund has just undertaken a valuation of its assets and liabilities and the actuary has advised that the fund is currently in deficit. This has surprised the sponsoring company as the valuation conducted three years ago reflected a small fund surplus.

i. Outline reasons why the funding level may have changed from a surplus to a deficit over the three-year period.

[5]

ii. List the information you would expect to find in the valuation report.

[4]

[Total 9]

QUESTION 3

Climate change risks have become more important in financial services regulation over the last decade.

i. List the aims of climate change related financial regulation.

[3]

You manage a large, diversified equity portfolio.

ii. Outline the risks climate change could introduce in the management of an equity portfolio.

[5]

In constructing and reviewing the equity portfolio, you take into account ESG (Environmental, social and corporate governance) practices of companies.

iii. Outline actions you can take to allow for the impact of poor ESG practices by companies.

[2]

[Total 10]

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QUESTION 4

A life insurer is considering adding an option to its whole of life insurance products. This option will allow policyholders the choice to increase their amount of cover without further medical underwriting being required.

i. Outline reasons for the insurer wishing to offer this option.

[3]

ii. Outline the risks to the insurer associated with offering this option.

[4]

iii. Describe the terms and conditions the insurer could specify under which the option may be exercised that could mitigate the risks of introducing this option.

[5]

iv. Discuss whether this option should be offered to both new and existing policyholders or only to new policyholders.

[3]

[Total 15]

QUESTION 5

NGA is a newly established life insurance company that offers death, critical illness, and income protection benefits for companies and individuals. NGA has various proportional and non-proportional reinsurance contracts in place.

Discuss the benefits of using reinsurance for NGA. Your answer should include examples of how reinsurance contracts may assist NGA.

[Total 10]

QUESTION 6

Inflation in a certain country is currently above the central bank's target range. In response, the central bank has raised the interest rate at which it lends to commercial banks (the repo rate).

i. Outline four ways in which raising interest rates would help to reduce inflation.

[4]

ii. List the main sources of revenue and costs for a retail bank and explain how these sources will be impacted by the central bank raising interest rates.

[6]

[Total 10]

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QUESTION 7

i. Define three types of advice that can be given.

[3]

You are an independent financial advisor to individual clients and licensed to provide advice on investment and risk products.

You have just met with a new client. The following information is known about him:

- He is a medical doctor by training, in his early thirties and married with two small children.
- He is the sole breadwinner for the family.
- He owns his own home which is mortgaged.
- He has just left his employer (a hospital group where he has worked for 10 years) and plans to establish his own medical practice.
- He has withdrawn his retirement benefit from his previous employer's pension fund and wishes to invest this lump sum and use it to meet his family related and other expenses while the business becomes established.

ii. Outline the current and future financial needs of this individual, and for each need state the types of financial product which would best meet that need.

[8]

iii. Outline the factors you will consider when proposing an investment strategy to this client for the lump sum being withdrawn from the pension fund.

[8]
[Total 19]

QUESTION 8

The government of a developing country has been encouraging the financial services industry to find innovative ways to improve home ownership among the country's working population. In response to this request, the pension regulator and the pension industry have recently approved a proposal for members to use part of their pension funds as deposits when purchasing property by means of mortgages obtained from banks and other approved mortgage providers. To achieve this objective, the pension regulator has issued the required regulatory guidelines.

i. List the potential benefits that the use of pension funds as deposits for mortgages could generate for the country.

[3]

ii. State two risks arising from allowing pension fund members to access a portion of their pension funds and state how each risk can be mitigated.

[2]

iii. Describe the key areas the regulatory guideline should cover.

[12]
[Total 17]

[GRAND TOTAL 100]

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END OF EXAMINATION

