

EXAMINATION

20 October 2020

Subject F203 — General Insurance Specialist Applications

Time allowed: Three hours and fifteen minutes

Total marks: 100

INSTRUCTIONS TO THE CANDIDATE

1. *Ensure that you are logged into your ProctorU account before attempting the examination.*
2. *Questions are only available in this ASSA Examination platform and may not be printed.*
3. *You are required to submit all of your answers in the ASSA Examination platform only. No uploads of answers (handwritten or otherwise) to the ASSA Examination platform will be accepted.*
4. *You may not use any other computer program (e.g. Email, MS Word or Excel), files or open any other browsers during the examination.*
5. *You are strongly encouraged to use the first 15 minutes as reading time only, however, you may commence answering the paper whenever you are ready.*
6. *Mark allocations are shown in brackets.*
7. *Attempt all questions.*
8. *Show calculations where this is appropriate. You may use blank paper to carry out rough work calculations. You may use a calculator from the approved list only.*
9. *You may return to your answers to review and amend during the allotted examination time. Once you are happy with your answers you need to **Finish all and Submit** your work. Once you have submitted you will not be able to make any more changes to your answers.*
10. *It is the candidate's responsibility to ensure that all work is submitted BEFORE the end of the allotted examination time. Take this into account when planning your review and submission. There will be no time announcements.*

Note: Answers will be saved automatically during the examination. However, 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

- i. a. Describe the different purposes of performing an experience analysis on claims and exposure.

[8]

You are the pricing actuary for a small commercial insurer writing only fleet insurance. Following an experience investigation, you find that you need to increase premium rates for 2020 by approximately double the repair cost inflation (expected to be 5.0%). The head of sales is concerned about the sudden increase in rates and has requested that you provide an explanation of the drivers for the increase. The table below provides a summary of the performance data for the previous two years:

Year	2018	2019
Premium (R'm)	1 000	1 750
Exposure (Risk Years)	15 000	25 000
Number of Claims	3 850	6 465
<i>Repairs</i>	<i>3 500</i>	<i>5 665</i>
<i>Write-offs</i>	<i>350</i>	<i>800</i>
Total Ultimate Claims (R'm)	750	1 400
<i>Repairs (R'm)</i>	<i>500</i>	<i>850</i>
<i>Write-offs (R'm)</i>	<i>250</i>	<i>550</i>

- b. Calculate the premium increase required for 2020 stating all the assumptions that you have made.

[10]

- ii. Explain briefly why the premium has increased by more than inflation.

[2]

REMEMBER TO SAVE

The head of claims is concerned about the escalating claims cost and has requested a reconciliation of the increase in Total Ultimate Claims cost.

- iii. a. Calculate the percentage contribution of each driver of the R650m increase in Total Ultimate Claims from the table above.
- b. Comment on each driver explaining if it should be raising concerns.

[20]

- iv. List the other information you would need to explain possible drivers of escalating claims cost and explain why you would need that information.

[10]

[Total 50]

REMEMBER TO SAVE

QUESTION 2

- i. Specify how the contract boundary for determining insurance obligations is defined under SAM and briefly explain why this is relevant in the context of valuation of technical provisions.

[4]

Greensure is a niche insurance company underwriting products related to the environmental impact of corporate actions. Some of the products it offers have coverage periods of many years which can usually only be terminated at the mutual agreement of both parties along with regulatory approval.

You are working as a consultant advising Greensure on current and forthcoming accounting standards.

Greensure is worried about the differences in the valuation of technical provisions under SAM and the forthcoming accounting standards. Greensure have asked you to investigate how the definitions of contract boundaries of technical provisions under the accounting standards may affect them.

The new accounting standard includes a paragraph with the following proposed description of contract boundaries:

“Cash flows are within the boundary of an insurance contract if they arise from rights and obligations that exist during the reporting period in which the entity can compel the policyholder to pay the premiums or in which the entity has an obligation to provide the policyholder with services:

An obligation to provide services ends when:

- *the entity has the practical ability to reassess the risks of the particular policyholder and, as a result, can set a price or level of benefits that fully reflects those risks; or*
- *both of the following criteria are satisfied:*
 - ❖ *the entity has the practical ability to reassess the risks of the portfolio of insurance contracts that contains the contract and, as a result, can set a price or level of benefits that fully reflects the risk of that portfolio; and*
 - ❖ *the pricing of the premiums for coverage up to the date when the risks are reassessed does not take into account the risks that relate to periods after the reassessment date.”*

- ii. Explain the differences in the contract boundary definition of SAM and the proposed accounting standards, identifying the implications for the consistent valuation of Greensure’s technical provisions between SAM and the proposed accounting standards.

[4]

REMEMBER TO SAVE

After explaining the outcome of your investigation to Greensure, management asks you to provide feedback on the components of the technical provisions under SAM and the forthcoming accounting standard.

- iii. Describe the principles for the best estimate valuation of technical provisions under SAM. [6]

You are satisfied that the principles regarding the valuation of the best estimate are similar under the two regulations.

- iv. a. Describe in detail the features of the risk margin under SAM. [5]
b. Critically analyse the calculation of the risk margin under SAM. [6]

The new accounting standard provides the following information about a risk margin:

“The risk margin for non-financial risk for insurance contracts measures the compensation that the entity would require to make the entity indifferent between:

- *fulfilling a liability that has a range of possible outcomes arising from non-financial risk; and*
- *fulfilling a liability that will generate fixed cash flows with the same expected present value as the insurance contracts.”*

The CFO of Greensure states that as the risk margin definition of the new accounting standard is principle based, the absolute amount of the risk margin can be aligned to the SAM risk margin.

- v. Outline a list of questions which would need to be investigated in determining the viability of the CFO’s proposed approach, considering the implications arising if the risk margins were aligned.

[12]

The CFO of Greensure is particularly interested in the tax implications of the new accounting standard. She mentions that the new accounting standard accounts for losses as soon as they are foreseen and defers profits until the point at which they are earned. She also mentions that the latest budget speech proposed that only 80% of losses can be offset against future profits for tax purposes.

- vi. a. Describe how underwriting profits or losses for a short-term insurer operating in South Africa are currently taxed. [8]
b. Discuss how the taxation regulations in South Africa should be updated to be consistent with the new accounting standard, identifying the implications of changes on Greensure’s profits in future.

[5]

[Total 50]
[Grand Total 100]

REMEMBER TO SAVE

END OF EXAMINATION