EXAMINATION

12 May 2026 (am)

Subject F203 — General Insurance Fellowship Applications

Examination writing time:	*Three hours and fifteen minutes (includes reading time)*
Upload time:	*Five minutes*

[Total time on examination countdown timer: Three hours and twenty minutes]

Total marks:	*100*

INSTRUCTIONS TO THE CANDIDATE

Failure to adhere to any of these instructions could incur examination sanctions including disqualification from the examination.

1. *Your examination countdown timer reflects your TOTAL examination time. Reading and writing time is three hours and fifteen minutes.* ***You may NOT continue to write during the five minutes upload time as this could lead to disqualification from the examination.***

2. *The question paper is available on the ASSA Exam Platform as a PDF download only 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. *You may not access any file from your computer, use any other computer software (e.g., Email or Excel), or open or use any other browser, collaboration tools or AI tools, including those embedded in MS Word and Adobe AI assistant (e.g. Copilot, ChatGPT etc.) during the examination. Embedded AI tools must be disabled. You may not use Grammarly, Grammarly Premium or similar built-in language and grammar tools which must also be disabled. Microsoft Word spellcheck is allowed.*

4. *Use only the Word answer template provided in your personal folder under the "Exam" icon on your desktop. The file has already been named using your candidate number. Please confirm that your candidate number matches the candidate number used in the file name. If there is any discrepancy, notify an invigilator immediately. Do not rename your file and do not create multiple versions.*

5. *Ensure that your* ***full Candidate Number*** *is entered 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. Your candidate number must be the only identifier used. Submissions that are incorrectly labelled or cannot be clearly identified by candidate number may not be marked and may result in forfeiture of the examination attempt.***

6. *You are required to submit your answers in Word format ONLY. No answers in any other format (e.g. handwritten) will be accepted. Save work regularly.*

7. *You are not permitted to bring any other material into the examination (e.g. a Formulae and Tables book). Any such information/material that may be required will be provided to you in the examination.*

8. *You are strongly encouraged to use the first fifteen minutes as reading time only, however, you may start answering the paper whenever you are ready.*

9. *Mark allocations are shown in brackets.*

10. *Attempt all questions, starting each on a new page (as provided for in the Word answer template).*

11. *Show calculations where appropriate. No materials may be used other than blank paper for calculations. Only calculators from the ASSA-approved list are permitted.*

12. *Upload a single version of your Word answer document only to the ASSA Exam Platform. Once uploaded, click* ***Finish Attempt.*** *You may still use* ***Return to attempt*** *to check that the correct version has been uploaded, provided you have time remaining. When you are satisfied with your upload, you must click* ***Submit all and Finish*** *to complete your submission. After selecting this option, no further changes can be made.*

13. *Candidates are responsible for ensuring that the correct content is uploaded for submission of their examination, that their answer script is successfully uploaded and submitted, and that it complies with the prescribed format, file size and submission location as communicated by ASSA. Submissions must be made via the examination platform. However, in the event of technical issues affecting the uploading of scripts to the platform, candidates may submit via the Incident Form. ASSA will not retrieve, replace or amend answer scripts where incorrect, incomplete or unintended versions are uploaded, where a script is not successfully uploaded or submitted via either the examination platform or the Incident Form within the stipulated timeframes (immediately in the case of an upload issue), or where candidates subsequently notify ASSA after the conclusion of the examination session that an incorrect file was submitted. Please note that candidates must both attempt and successfully submit their examination for it to be considered valid. Any attempt that is not successfully submitted in accordance with the above requirements will be regarded as incomplete and therefore invalid and will not be marked.*

14. ***You must submit your Word answer document onto the ASSA Exam Platform BEFORE the time on your examination countdown timer runs out.***

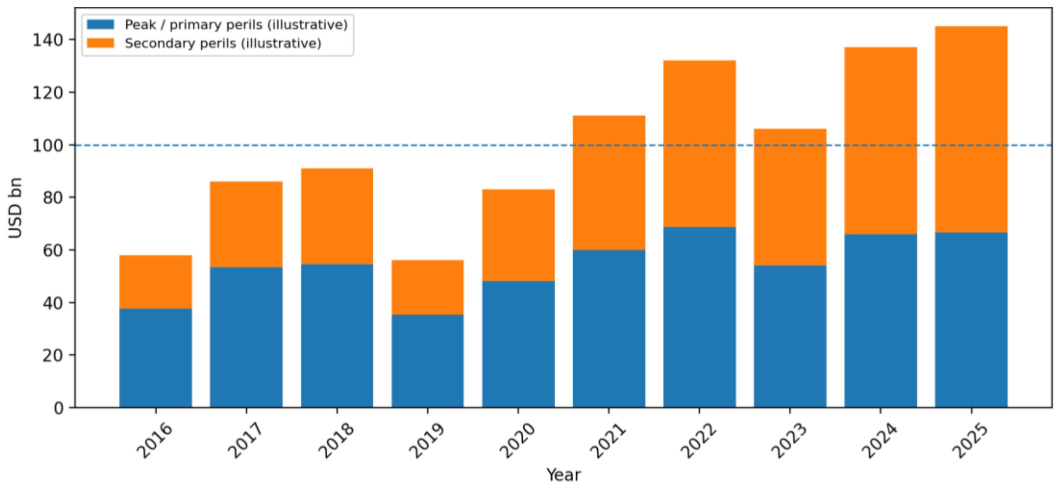
Note: The Actuarial Society of South Africa will not be held responsible for loss of data where candidates have not followed instructions as set out above. The onus remains on you to read and implement all examination instructions.

END OF INSTRUCTIONS

QUESTION 1

Over the last 10 underwriting cycles, industry-wide catastrophe losses have shown a shift in composition, with secondary perils contributing a growing proportion of insured losses.

Exhibit 1.1: Global insured natural catastrophe losses



** Secondary perils refer to smaller but more frequent weather events (e.g. hail, floods, wildfires), whereas primary perils are less frequent but high-severity events such as major hurricanes and earthquakes. Secondary perils are increasingly discussed in the context of climate change, but they are also influenced by exposure growth, urbanisation, infrastructure vulnerability and insurance penetration.*

Exhibit 1.2: Catastrophe Market Commentary:

- Market capacity for catastrophe risk transfer is generally adequate; risk-adjusted rates have stabilised or softened in several segments.
- Cedants are seeking improved earnings stability: more focus on aggregate/frequency protection and tighter event definitions.
- Alternative capital (insurance-linked securities/catastrophe bonds) remains significant, offering additional capacity but with structuring considerations.

Exhibit 1.3: Insurance Market:

- Following a period of relatively favourable loss ratios, competitive conditions in several short-term lines have increased, with evidence of decreased pricing discipline in parts of the market.
- Broader economic growth remains subdued in South Africa, limiting premium growth opportunities.
- Inflation has moderated, interest rates are declining and credit conditions are improving. This may encourage greater investment risk appetite across the market.

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Exhibit 1.4: Past three financial years' company performance:

- Premium growth is in line with the market, reflecting stable but low growth economic conditions.
- Loss ratios have been favourable, consistent with broader market experience.
- Expense ratios have gradually increased, with the cost-to-income ratio rising to approximately 35%. This is driven by technology investment, regulatory compliance costs and general operating pressures in a low-growth environment.
- Reinsurance costs have increased materially over the past five renewal cycles, driven by global catastrophe experience and repricing in international markets. Terms have shown signs of stability in the most recent renewal.

The Board Risk Committee has requested an interim update assessment as part of the 2027 planning cycle.

Address each of the following areas, focusing on material risks and trade-offs. Your advice should reflect the insurer's recent performance, competitive environment and risk appetite.

i. Assess the following aspects of **pricing and portfolio steering**

- rate adequacy in the context of the rising expense ratio and a softening market

- secondary-peril catastrophe loading in property pricing

- portfolio steering actions to manage concentration risk

[7]

ii. Evaluate the following aspects of the **reinsurance programme structure**

- adequacy of current retentions given the shift toward secondary peril frequency

- aggregate and stop-loss protection considerations

- cost-benefit of the program given rising reinsurance costs.

[6]

iii. Explain the following aspects of **capital and earnings management**

- risk appetite metrics related to a combined ratio target range

- maximum tolerable net catastrophe loss

- one specific stress or scenario test relevant to this insurer

- the impact of expected investment income on the insurer.

[5]

iv. Identify the following aspects of **monitoring, governance and conduct**

- three key risk indicators (KRI)s with escalation triggers

- catastrophe model risk controls

- one customer conduct consideration relevant to a softening market.

[6]

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The insurer could alternatively be part of a banking group prioritising earnings stability and capital protection, **or** a venture-capital backed insurtech pursuing rapid 'hockey-stick' growth (i.e. slow initial growth followed by a sharp acceleration in scale and market share).

v. Complete the table below by stating how recommendations in your update assessment (i. to iv. above) would differ under each ownership model, with reference to the insurer's context.

In the Rationale column, briefly explain your reasoning.

[10]

Category	Banking group	VC-backed insurtech	Rationale for difference
Pricing & portfolio steering			
Reinsurance programme structure			
Capital and earnings management			
Monitoring, governance and conduct			

[Total 34]

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QUESTION 2

Exhibit 2.1: Cyber Liability gross provisions — Year End (YE) 2025 valuation (R million)

Accident Year (AY)	Incurred Claims	Selected CDF
2021	120	1.05
2022	150	1.10
2023	180	1.25
2024	200	1.45
2025	160	1.80

Exhibit 2.2: Cyber Liability gross provisions — Year End (YE) 2026 valuation (R million)

Accident Year (AY)	Incurred Claims	Selected CDF
2021	126	1.01
2022	170	1.06
2023	230	1.18
2024	300	1.55
2025	250	2.05
2026	190	2.60

Exhibit 2.3: Cyber Insurance Market

A global cyber-security bulletin reports a sharp increase in coordinated malware campaigns and "double-extortion" incidents (data encryption plus threats of public leak). Several jurisdictions report heightened disruption from attacks on supply chains and managed service providers. The bulletin notes:

- More mid-sized corporate targets;
- Increasing costs of breach response, legal defence and regulatory notification;
- Evidence of unlawful 'facilitation' payments and coercion to suppress disclosure.

Industry commentators warn that cyber loss patterns may exhibit delayed reporting and claims inflation, with legal and regulatory environments evolving rapidly.

Exhibit 2.4: Capital and risk appetite

- The Board risk appetite target is to operate between 140% and 170% of SCR (coverage ratio). The YE2026 forecast (before any reserve strengthening) is 150% SCR coverage.
- A 10% increase in net technical provisions reduces SCR coverage by 8 percentage points (all else equal). Consider the Cyber Liability portfolio to represent a material proportion of total net technical provisions and apply this sensitivity directly.
- Dividends may not be paid if the insurer fails (or is likely to fail) to maintain financial soundness (SCR/MCR compliance), and governance requires early warning and escalation where deterioration is likely.

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Exhibit 2.5: Reinsurance (current) on Cyber Liability

- Quota share (QS): 20% ceded on Cyber Liability (ceding commission 25%).
- Excess of loss (XL): R50 million in excess of R10 million per risk, one reinstatement, annual aggregate limit R200 million.
- Reinsurance premium is forecast to increase by 12% at renewal unless programme terms change.

i. Explain why both IBNR and case reserves (OCR) are particularly relevant for Cyber Insurance.

[3]

ii. Explain how these liabilities would be presented under IFRS 17.

[4]

iii. Explain why setting the reserving assumptions for the cumulative development factors (CDFs) in Exhibits 2.1 and 2.2 requires the application of professional judgement.

[3]

iv. Using the data in Exhibits 2.1 and 2.2, calculate the total ultimate provision for years ending 2025 and 2026.

Additionally, quantify how much of the increase in ultimate provision is attributable to changes in Incurred versus changes in CDFs. Show your workings.

[7]

v. Identify four plausible drivers for the deterioration in Cyber Liability reserves over the year, referencing Exhibits 2.1, 2.2, and 2.3.

[4]

The CFO pushes back on your analysis, arguing that the deterioration is temporary and that growth and spending less on reinsurance will dilute the problem.

vi. Explain why the best-estimate reserve cannot be set with reference to financial targets, describing the appropriate approach to communicating uncertainty to the Board.

[3]

vii. Using Exhibit 2.4, quantify the approximate impact of a material reserve strengthening on SCR coverage, and explain the governance implications.

[3]

viii. Recommend specific pricing, underwriting and operational actions required before new Cyber business is written, including practical steps to improve data quality and claims management.

[5]

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Following your reserve review, the CFO approved a 30% rate increase on Cyber renewals. However, Q1 2027 is still running at a 95% loss ratio, which is above the revised pricing assumption.

ix. Applying the actuarial control cycle to the situation, identify the following:

a. The two most critical objectives given the new information.

b. Two internal and one external stakeholder that are most directly affected.
Explain their expectation of the actuarial function.

c. A relevant capital constraint under SAM and a relevant reporting constraint under IFRS 17.
Explain how each limits your options.

d. Two measurable criteria by which you would judge whether the remediation strategy succeeds.

e. Two specific external developments (regulatory or otherwise) that could materially change your reserving or pricing assumptions.

[8]

x. Explain how the reserve strengthening and related IFRS 17 technical provision changes could affect the insurer's taxable income and its capacity to pay dividends. In your answer address the interaction between IFRS 17 carrying values, the tax base of provisions, and the Companies Act solvency requirements.

[5]

[Total 45]

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QUESTION 3

Your company plans to launch a new SME offering, "SME Shield", combining Commercial Property cover with an optional Cyber extension. The product will be distributed via an underwriting management agency (UMA). The UMA has requested delegated authority to set premiums within agreed rating parameters and to settle claims up to R250,000.

Exhibit 3.1: Pricing assumptions provided by the product team for 2027 (per policy):

Item	Assumption
Expected annual claim frequency (Property)	0.08
Expected annual average severity (Property)	R120,000
Expected annual claim frequency (Cyber add-on)	0.03
Expected annual average severity (Cyber)	R180,000
Fixed expenses per policy	R450
Variable expenses (acquisition + admin) as % of premium	22%
Reinsurance costs (net of claims) as % of premium	4.5%
Target underwriting profit margin (on premium)	6%

Exhibit 3.2: 2026 year-to-date Cyber Liability portfolio snapshot (Gross, R millions)

Accident Year	GWP	Earned Premium	Paid claims	OCR	Ultimate Loss Ratio	Ultimate Combined Ratio	Budget Loss Ratio
2025	110	85	35	15	60%	85%	65%
2026	140	95	68	35	120%	150%	65%

i. Using Exhibit 3.1, calculate the indicated gross premium per policy for SME Shield (including both Property and Cyber add-on), incorporating fixed and variable expenses, reinsurance costs and the target profit margin. State clearly any additional assumptions you make.

[7]

The CFO insists SME Shield must be priced 12% below your indicated premium to hit growth targets.

ii. Using your answer from (i), calculate the shortfall per policy and propose practical responses (across pricing, underwriting, product design, reinsurance, and expenses) that could reduce or close the gap. For each response, briefly note the key risk or trade-off.

[4]

iii. Using Exhibit 3.2, diagnose the key drivers of the adverse combined ratio versus budget for the existing Cyber Liability portfolio, and propose an action plan for the next two quarters. Your answer must cover:

a. Analysis approach and metrics

b. Specific management actions

c. Key performance indicators (KPIs) you would monitor going forward, with escalation triggers

d. How you would incorporate findings into pricing, reserving and capital models

[10]

[Total 21]

[Grand Total 100]

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END OF EXAMINATION

