ACTUARIAL SOCIETY OF SOUTH AFRICA

EXAMINATION

19 May 2026

Subject F107|B100 — Banking Fellowship Principles

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

Protea Bank is a mid-sized retail bank that has accumulated a large portfolio of home loans over the past decade. The bank's treasury team is exploring securitisation as a mechanism to manage the balance sheet and free up capital for new lending.

i. Define securitisation and explain the basic mechanics of how a bank securitises a portfolio of loans.

[3]

ii. Outline the potential benefits of securitisation for Protea Bank.

[4]

iii. Describe the role of credit enhancement in a securitisation structure and outline the different forms of credit enhancement available to an issuer.

[3]

Protea Bank’s origination team is under pressure to grow the home loan book quickly. An “originate to distribute” proposal is put forward to securitise newly originated loans within 90 days of issuance, passing the credit risk to investors and recycling the capital into further lending. The structuring team earns a fee on each transaction that is closed, and the loans will be serviced by a third party after transfer. Senior management are supportive as the model allows rapid balance sheet growth without the need to raise additional equity.

iv. Identify the “originate to distribute” risks present in this scenario and outline the measures that could be introduced to manage these risks.

[3]

[Total 13]

QUESTION 2

Saiyan Bank is a large bank that currently uses the Advanced Internal Ratings-Based (AIRB) approach for credit risk capital calculations across all its portfolios. The Chief Risk Officer has asked you to assess the impact of the Basel IV (Basel III final reforms) on the bank's operations.

i. Outline the key revisions to the credit risk measurement approaches under Basel IV and explain the purpose of these revisions.

[3]

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Under Basel IV, the AIRB approach can no longer be applied to the asset classes of specialised lending and equities.

ii. Discuss the operational implications for Saiyan Bank in transitioning these portfolios to the appropriate approach, with specific reference to how internal systems, reporting and modelling are impacted.

[5]

The implementation timelines for Basel IV vary significantly across jurisdictions. For example, the EU began implementation in January 2025, while the UK started in July 2025. The US proposals remain under review with implementation delayed. Saiyan Bank currently operates within all these jurisdictions.

iii. Discuss the challenges and potential competitive implications for Saiyan Bank given the divergent implementation timelines across these major banking jurisdictions.

[5]

[Total 13]

QUESTION 3

Harvey Bank is a large, established retail bank that operates within a single jurisdiction and offers a full suite of banking products and services for individual customers. Harvey Bank has a mature credit risk modelling capability and calculates regulatory capital for credit risk using the Advanced Internal Ratings-Based (AIRB) approach.

i. Outline different ways in which the bank can use Probability of Default (PD) models to manage credit risk. For each potential use, comment, with motivation, on whether a point-in-time (PIT) or through-the-cycle (TTC) measure would be most appropriate.

[8]

ii. Define the term Significant Increase in Credit Risk (SICR) under the IFRS 9 expected credit loss (ECL) framework.

[2]

iii. Explain how the requirement of SICR could lead to a reduction in credit lending during an economic contraction. Refer to the CET1 (Common Equity Tier 1) Ratio to support your answer.

[6]

[Total 16]

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QUESTION 4

Fever Tree Bank is a retail bank evaluating its product profitability. The following information has been extracted from the bank's management accounts (in L$ millions):

Product	Average Balances	Interest Income	Interest Expense	Fee Income	Impairments	Direct Costs
Home Loans	50,000	4,500	2,750	150	225	400
Credit Cards	8,000	1,920	480	640	480	350
Transactional accounts with Overdraft facilities	3,000	600	150	120	135	180

i. Calculate the following metrics for each product and comment on the relative profitability.
   a. Net Interest Margin
   b. Credit Loss Ratio
   c. Profit Before Tax

[7]

ii. Discuss the strategic importance of transactional accounts to a retail bank, considering: cross-selling opportunities, customer retention, and funding benefits.

[7]

The bank currently uses external credit bureau scores as a key input to credit decisions. A senior manager has proposed developing fully internal credit scoring models to replace reliance on bureau scores.

iii. Discuss the advantages and disadvantages of this proposal.

[5]

[Total 19]

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QUESTION 5

MGS Bank is planning on launching GigaFlex, which is a revolving credit line for 'gig' workers i.e., ride hailing, food delivery, and freelancers. The product's credit limit and price automatically adjust to the customer's recent income.

The product connects, with the customer's consent, to their gig platforms and payment processors, recalculating an affordable limit weekly, and collecting repayments through a fixed percentage of incoming revenues.

The product feature summary is shown below:

Feature	**Description**
Type of product	A revolving credit line whose limit adjusts to a customer's recent, verified income from 'gig' platforms.
Target market	Individuals with volatile or seasonal income who are underserved by traditional, salary-based scoring.
Limits	Net Platform Income (NPI) is the average net inflows over the last 90 days Max Limit: 1.5 × NPI
Repayment	A fixed percentage of 15% is automatically taken from platform pay outs (customer income) weekly.
Relief	Reduce the repayment percentage after verified income shocks.

i. Outline the advantages and disadvantages of the product to the customer.

[4]

The CFO of the bank has noted that since this is a new product it has a potential to open the bank up to high credit risk which could have a large impact on the financial statements.

ii. Discuss solutions or strategies that the bank could put in place to help address the CFO's concerns.

[7]

iii. Describe operational risks that the bank could face specifically related to this product.

[3]

The bank uses the new standardised method for calculating their operational risk capital requirements as per the Basel III Framework.

iv. Briefly describe the components of the new standardised approach to operational risk capital requirements.

[3]

The bank recently experienced a very large operational risk event on some of its other products, relating to internal fraud. An IT analyst bypassed limits on business overdrafts, resulting in a L$150m loss.

v. Discuss the potential impacts of the above event on their current and future operational risk capital requirements.

[2]

[Total 19]

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QUESTION 6

Clair-Obscur Bank (COB) offers a full range of banking services to business and corporate clients. The bank is investigating ways to improve its climate risk management capabilities.

i. Outline the types of data that would need to be collected from businesses and corporates to assist the bank to measure physical and transition risks.

[5]

COB has been approached by a fintech which is looking at starting a Climate Data Sharing Hub. The hub's proposal is as follows:

- The hub will provide comprehensive customer climate-related data to banks.
- Banks' customers would submit climate related information to the hub.
- The hub would assist customers in generating or obtaining the required climate-related data.
- Banks would have access to their customer's submitted information in a standardised format.
- The hub will include various tools to provide insights and utilise models and AI to validate data.

ii. Discuss the advantages and disadvantages of a Climate Data Sharing Hub from the perspective of the bank.

[5]

The bank has been considering calculating and disclosing its financed emissions (Scope 3) originating from its commercial property finance portfolio.

iii. Outline the reasons as to why the bank would want to improve its scope 3 emission disclosures.

[4]

The following methodology has been proposed to calculate the financed emissions of the bank's commercial property finance portfolio:

$$\mathit{Financed\ emissions} = \sum_j N_j \times E_j$$

Where:

j is the region

N_j is the number of properties in region j

E_j is the estimated emissions per property in region j

iv. Comment on the methodology proposed and suggest improvements to the methodology.

[6]

[Total 20]

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END OF PAPER

