

# SPECIMEN EXAMINATION PAPER 1

Syllabus 2022

## Subject F107 – Banking Fellowship Principles

*Time allowed: Three hours and fifteen minutes*

*Total marks: 100*

### **INSTRUCTIONS TO THE CANDIDATE**

1. *Instructions below are a guide and not intended to be the final instructions in the exam.*
2. *You are required to submit all of your answers in the Examination platform only. No uploads of answers (handwritten or otherwise) to the Examination platform will be accepted.*
3. *You may not use any other computer program, files or open any other browsers during the examination.*
4. *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.*
5. *Mark allocations are shown in brackets.*
6. *Attempt all questions.*
7. *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.*
8. *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.*
9. *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

A bank is considering moving from the Standardised Approach to the Advanced Internal Ratings Based Approach for the calculation of its Credit Risk capital requirement.

i. Briefly define the three main components of credit risk measurement: PD, LGD and EAD.

[7]

ii. Describe the three main approaches for calculating credit risk capital under Basel II Pillar 1 and the suggested requirements for using the more complex approaches.

[12]

[Total 19]

## QUESTION 2

Describe some of the common tests a bank would perform to assess a capital PD model performance built on internal data.

[10]

## QUESTION 3

A bank is analysing the performance of its retail product offerings. The profitability of the current account banking product is shown below.

South African Rand	Relevant information	
	2020	2021
Interest income	R142 000 000	R149 000 000
Fee income	R411 000 000	R376 000 000
Cost of funding	R48 000 000	R57 000 000
Branch costs	R125 000 000	R136 000 000
ATM maintenance costs	R75 000 000	R88 000 000
Transaction processing costs	R23 000 000	R30 000 000
Direct costs	R11 000 000	R12 100 000
Opening Provision balance	R50 000 000	R54 000 000
Closing Provision balance	R54 000 000	R57 000 000
Write offs	R35 000 000	R41 000 000
Total capital required	R271 828 000	R314 159 000
Average Debit Balances for the Year	R775 000 000	R830 000 000
Average Credit Balances for the Year	R1 950 000 000	R2 200 000 000
Average Client Limits for the Year	R1 666 000 000	R2 220 000 000

i. Define and calculate the following measures for this product: net interest margin, impairment charge (bad debt charge) percentage, profit before tax and return on capital (ROC) for each financial year.

[10]

ii. Briefly describe the information that one could gain from these metrics and comment on the year on year movements.

[11]

[Total 21]

#### **QUESTION 4**

i. Explain the three approaches for calculating Operational Risk capital under Basel II.

[9]

ii. Explain some of the common methodologies for calculating the frequency and severity of an operational risk loss model that could be used at a bank.

[8]

[Total 17]

#### **QUESTION 5**

i. Briefly describe the concept of ‘Twin Peaks’ financial regulation and the advantages and disadvantages of such a type of regulation.

[7]

ii. Briefly outline the concept of Conduct Risk in banking and give four different examples of potential Conduct Risk events.

[8]

[Total 15]

**PLEASE TURN OVER**

**QUESTION 6**

i. State the definition of market risk and name common sources that market risk can arise from in a bank.

[5]

ii. Outline the components of the new standardised approach for market risk capital.

[7]

iii. In order to use the internal models approach, a bank needs approval from its regulator. What minimum requirements should a bank have before obtaining regulatory approval?

[6]

[Total 18]

**END OF PAPER**