Actuarial Society of South Africa

EXAMINATION

28 October 2015

Subject F206 – Banking
Fellowship Applications

Time allowed: Three hours

INSTRUCTIONS TO THE CANDIDATE

1. *Candidates will be issued with instructions to log-in using a password (which you will be provided with at the exam center).*

2. *Candidates are required to submit their answers in Word format only using the template provided. You MAY NOT use any other computer program (e.g. Excel) during the examination.*

3. *Save your work continuously throughout the exam, on your computer's hard drive with which you have been provided.*

4. *You have 15 minutes at the start of the examination in which to read the questions. You are strongly encouraged to use this time for reading only, but notes may be made. You then have three hours to complete the paper.*

5. *You must not start typing your answers until instructed to do so by the invigilator/supervisor.*

6. *Mark allocations are shown in brackets on exam papers.*

7. *Attempt all questions, beginning your answer to each question on a new page.*

8. *Candidates should show calculations where this is appropriate.*

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.

AT THE END OF THE EXAMINATION

Save your answers on the hard drive.
Hand in your question paper with any additional sheets firmly attached.

In addition to this paper you should have available the 2002 edition of the Formulae and Tables and your own electronic calculator from the approved list.

QUESTION 1

You are the Head of Retail Credit at a prominent bank in South Africa. Your portfolio includes Credit Cards, Overdrafts, Home Loans and Personal Loans for all retail customers. One of the responsibilities of your team is to review the provisioning results obtained from the centralized area that calculates the provisioning requirements monthly.

i. Explain why a bank should raise credit provisions, why it is important to determine the value of credit provisions accurately and what types of credit provisions exist.

[6]

ii. Over the last quarter you have noticed that the provisions held for the Retail Credit Card and Overdrafts portfolios have increased significantly in rand terms (please see the table below for recent financial information on the retail portfolios). Explain how you would evaluate and compare these results. Include details how you would establish possible causes for the results in your answer.

[8]

2015 Quarter 1 Account Information (Rm)

Product	Provision	Outstanding Balance	Total Credit Facilities
Credit Card	510	8 500	28 333
Personal Loans	700	7 000	
Home Loans	4 500	150 000	
Overdrafts	315	4 500	12 857

2015 Quarter 2 Account Information (Rm)

Product	Provision	Outstanding Balance	Total Credit Facilities
Credit Card	666	10 235	30 104
Personal Loans	728	7 210	
Home Loans	4 790	154 500	
Overdrafts	442	5 529	13 821

The Head of Credit for the Credit Card product suggests that the risk needs to be drastically reduced as a result of these increases in provisions on Credit Card product. He suggests cutting new facilities 25% by increasing the risk cut-off on the application scorecards and by reducing maximum facilities offered across all risk buckets.

iii. Explain how you would validate his suggestion. Include different courses of action available to the bank in your answer.

[10]
[TOTAL 24]

PLEASE TURN OVER
REMEMBER TO SAVE

QUESTION 2

A multinational bank calculates the economic capital requirement for the following year with a probability of adequacy of 99.9% (1 in a 1000 likelihood of inadequate capital). The company has an internal control framework that allows it to identify and quantify the risks to which it is exposed.

i. Discuss the following sources of risk and how these may be controlled:
   a. Credit risk
   b. Market risk
   c. Operational risk

[15]

The last economic capital calculation was performed a year ago, since then there has been an economic downturn. In the main markets in which the company operates Gross Domestic Product values have fallen by 3% to 6%, unemployment has risen by 6% and property prices have fallen by 20%.

ii. Discuss how the credit risk to which the bank is exposed is likely to have changed during the year, including the potential impact on the Bank's capital.

[8]

You are the Actuary in charge of the Bank's ICAAP process. The company uses one-year stress tests in the calculation of credit risk capital at each year-end.

iii. Discuss the factors that you would take into account when setting the stress tests for credit risk.

[9]

The Bank's total regulatory capital is currently calculated at a group level as the sum of the regulatory capital required for each country in which it operates. A director has seen an initial report, which suggests that the amount of economic capital required under the Bank's total internal economic capital model for the group is well in excess of the regulatory capital. The director has suggested that the Bank should ensure that it has sufficient capital to meet the greater of the capital requirements shown by the company's internal capital model and the total required under the local solvency regulations.

iv. Discuss this suggestion. [10]

The Bank's subsidiaries operate in South Africa, Nigeria, Kenya and the United Kingdom.

v. Explain the steps the Bank would follow in allowing for diversification between risks in the aggregation of capital across the different countries.

[6]
[TOTAL 48]

PLEASE TURN OVER
REMEMBER TO SAVE

QUESTION 3

Bank A is a large South African Retail Bank looking to expand its product offerings to include Corporate products in the rest of Africa. Bank B is a large United Kingdom based bank and currently offers both Retail and Corporate Banking products in several countries around the world. Bank B's African subsidiaries only offer Corporate products.

Bank A is considering purchasing Bank B's African Corporate Loan portfolio. Management of Bank A is concerned that it would need to be able to ensure that its financial statements, as well as its capital submissions to the South African Reserve Bank, are compliant with South African regulations.

Discuss the key considerations for Bank A in determining whether or not to go ahead with this transaction.

[TOTAL 10]

QUESTION 4

i. Define the following terms:

(a) Liquidity coverage ratio (LCR) [1]

(b) Net stable funding ratio (NSFR) [1]

ii. Explain how these metrics are implemented in the South African Banking industry. [4]

You work for a large South African Bank. The LCR and NSFR for your bank and two other banks in the market are as follows:

Bank	LCR	NSFR
Large South African	80%	90%
Bank 1	65%	90%
Bank 2	95%	90%

The bank's treasurer has asked you to advise the Asset Liability Committee on how to interpret the LCR and NSFR and how the ratios can be used to improve risk management.

iii. Outline the points you would make to the Asset Liability Committee.

[12]
[TOTAL 18]

[GRAND TOTAL 100]

END OF EXAMINATION