INSTITUTE AND FACULTY OF ACTUARIES

EXAMINATION

30 April 2015 (am)

Subject SA5 – Finance
Specialist Applications

Time allowed: Three hours

INSTRUCTIONS TO THE CANDIDATE

1. *Enter all the candidate and examination details as requested on the front of your answer booklet.*
2. *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.*
3. *You must not start writing your answers in the booklet until instructed to do so by the supervisor.*
4. *Mark allocations are shown in brackets.*
5. *Attempt both questions, beginning your answer to each question on a new page.*
6. *Candidates should show calculations where this is appropriate.*

AT THE END OF THE EXAMINATION

Hand in BOTH your answer booklet, with any additional sheets firmly attached, and this question paper.

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.

1 A large domestic insurance company with a AA financial strength rating has decided to expand overseas. It has decided to establish a separate insurance company to write all of the overseas business. Management are considering whether to seek a financial strength rating for the new company and if so what the desired level of the rating should be.

(i) Discuss the issues that management should consider. [8]

A bank has announced that it intends to make changes that will result in its credit rating changing from AAA to AA− in the near term.

(ii) Outline reasons why the bank may have decided to change its credit rating. [2]

(iii) Discuss changes that the bank might make to achieve this goal. [9]

(iv) Explain the likely immediate impact of the announcement on the bank's ordinary shares and bonds. [4]

Credit ratings published by the major credit rating agencies reflect the probability of getting the principal back and not the probability of getting the market value of the security back. This creates an issue when a security trades at a significant discount to par and/or when redemption yields on a given security are significantly higher than the average for the given credit rating/term.

(v) Set out why this situation could be a significant issue for an institutional investor or investment manager. [2]

(vi) Suggest an approach that could be employed to re-rate a security to better reflect the probability of getting the market value of the security back. Include an example in your answer. [6]

(vii) Determine whether the problems with credit ratings described above mean that securities should be re-rated prior to being input to economic capital models. [2]

An investment fund invests solely in rated fixed income securities. The weighted average credit rating of the fund's investments must be A or higher and the fund's duration must be under three years at any point in time. The investment manager is considering selling the securities and replacing them with cash and derivatives without breaching the fund's constraints.

(viii) Describe the mix of investments that the fund could hold. [2]

(ix) Contrast the risks that the fund was carrying when it invested solely in physical securities with the risks that it will carry using the new strategy. [7]

A fund holds rated fixed and floating income investments.

(x) (a) Outline four key risks other than credit risks likely to arise in a fixed and floating income investment portfolio.

(b) State a risk measure for each of these risks. [8]

[Total 50]

2 A group of UK resident individuals have set up AM Fund, a small asset management limited liability company in the UK. Initially the company's only source of revenue will be the profits from actively trading a global derivatives strategy using the company's own internal capital.

(i) Outline the corporation tax framework that will be relevant for AM Fund. [6]

AM Fund now wants to launch a pooled fund following the same investment strategy with the aim of attracting predominantly institutional investors.

(ii) Describe the main areas of product risk that will be relevant for this new pooled fund. [8]

The shareholders of AM Fund are concerned about potential losses resulting from operational risk.

(iii) Describe:

(a) the operational risks that may arise.
(b) how future losses from these operational risks can be estimated.
[12]

(iv) Outline the main techniques that can be used to control losses that may arise from the operational risks facing AM Fund. [7]

(v) Describe good corporate governance in the context of AM Fund. [4]

AM Fund's shareholders have been approached by a global alternative asset management firm who have expressed an interest in acquiring AM Fund.

(vi) Discuss the likely rationale for the proposed acquisition from both the buyer's and the seller's perspective. [6]

(vii) Discuss the main issues arising before, during and after the acquisition that need to be considered by AM Fund's management and the buyer to help ensure that the acquisition is successfully completed. [7]
[Total 50]

END OF PAPER