EXAMINATION

15 September 2008 (am)

Subject CA1 — Core Applications Concepts

Paper One

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 all 6 questions, beginning your answer to each question on a separate sheet.*

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 (i) Describe the three different types of advice that an actuary could provide. [3]

(ii) Discuss the professional considerations an actuary should take into account when providing advice to an insurance company regarding the implementation of a new accounting standard. [4]
[Total 7]

2 (i) State the formula used for explaining the total return that investors require on an asset. [2]

(ii) Explain how this formula can be used to analyse the difference between the quoted redemption yields available on an index-linked government bond and a fixed-interest non-government bond, which have the same outstanding term to redemption. Both bonds are issued in the same currency. [6]
[Total 8]

3 A small company specialises in manufacturing medical equipment. Approximately 75% of its business relates to a single high value product, for which it has a market share of around 60%. The company operates from a single site.

The shareholders of the company have agreed to accept an offer for their shares from a large multinational conglomerate. The multinational does not manufacture the company's main product line, but it does manufacture some of the company's other products. The multinational intends to continue to operate the existing plant and premises.

(i) Discuss how the change in ownership could affect the operations of the small company and hence the attitude towards obtaining insurance cover for the risks that it faces. [3]

(ii) List the types of insurance cover that the small company is likely to have had in place prior to its acquisition. [4]

(iii) Discuss how and why the existing insurance arrangements might change following the acquisition. [6]
[Total 13]

4 An individual aged 50 has been told that he will be made redundant from his job in one month's time. He has been offered an immediate early retirement pension from his employer's pension scheme and a redundancy cash payment. An actuary has been asked to give advice on how the individual could use the redundancy cash payment.

(i) Describe the further information that the actuary may need to gather. [8]

(ii) Discuss the features of the cash flow projections the actuary would carry out when giving advice. [8]
[Total 16]

5 A general insurance company writes a range of business.

(i) Specify the levers that management can use to try to increase the amount of profit or reduce potential losses. [6]

(ii) Outline the main reasons for monitoring the actual experience of the business. [3]

The company intends to carry out an analysis of its expense experience for the purpose of product pricing.

(iii) Describe the factors the company should consider when using the results of this analysis. [6]

Rather than carrying out a new, full analysis, the directors are considering using the results of the previous analysis. They suggest taking the previous expense figures and adjusting them to allow for inflation.

(iv) Discuss this approach. [6]
[Total 21]

6 (i) State reasons why overseas property may be attractive to institutional investors. [3]

(ii) List practical problems an investor in overseas property may face. [3]

A large financial institution has been asked by a consortium to provide significant debt finance for a major project. The consortium proposes to construct and then manage a number of new hotels in a range of developing countries. The target customers for the hotels would be affluent tourists from developed countries.

(iii) Outline the social and economic factors that could make the project an attractive proposition. [3]

(iv) Describe significant risks to the consortium's revenues once construction has been completed. For each risk, explain the actions that could be taken to reduce the chance of the risk occurring. [12]

As an alternative to lending money to the consortium, the financial institution is considering purchasing blocks of shares in a number of domestic property companies whose portfolios contain overseas hotels.

(v) Explain how the financial institution's risk profile would differ between the two alternatives. [8]

(vi) Describe the benchmarks the financial institution could use to assess the performance of each of the two alternative investment options. [6]
[Total 35]

END OF PAPER