EXAMINATION

4 September 2006 (am)

Subject CA1 — Core Applications Concepts

Paper 1 (Assets)

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 7 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.*

1 (i) Define the term *equity risk premium*. [1]

(ii) Describe why a change in the equity risk premium will alter the valuation of equities using a discounted dividend model. [2]

(iii) Explain the phrase *systematic equity risk premium* and give two examples of events that would change the systematic equity risk premium. [2]
[Total 5]

2 (i) List the possible uses of investment market indices. [4]

(ii) State with reasons the uses in part (i) for which the following US equity indices would be appropriate:

(a) the Dow Jones Index
(b) the Standard & Poor's Composite Index [4]
[Total 8]

3 Describe the project management requirements necessary to ensure a project is successful, timely and cost effective. [10]

4 (i) Explain why market value is not always suitable to use when valuing an asset. [4]

(ii) Describe the following methods of valuing an asset:

(a) Book value
(b) Smoothed market value
(c) Discounted cash flow value
(d) Value resulting from a stochastic model
(e) Arbitrage value [7]

(iii) Outline the circumstances in which each of the methods in (ii) could be used. [5]
[Total 16]

5 A large benefit scheme includes pension benefits that are linked to the final salaries of members.

The assets of the scheme are invested in a range of equities, fixed interest and property investments without any formal regard to the matching of the assets to the liabilities.

   (i) Discuss the issues the scheme would need to consider if it wished to match the value and timing of its asset proceeds with the value and timing of its liability outgo. [5]

   (ii) Outline the difficulties the scheme might experience in trying to implement the strategy in part (i). [5]

For the past few years the scheme's investment objective has been to achieve an investment return in any given calendar year that is in the top quartile of returns earned by comparable benefit schemes. The scheme's investment managers have met this objective in four out of the past five years. There are no restrictions on the investment managers' choice of investments.

   (iii) Explain why this investment objective might not be appropriate. [3]

   (iv) Discuss changes that could be made to the scheme's investment objective in order to address the issues raised in part (iii). [5]
   [Total 18]

6 (i) List the principal issuers of bonds. [2]

   (ii) List the features of an individual corporate bond that affect its price. [6]

   (iii) Describe the risks that need to be considered in corporate bond investment.
   [13]
   [Total 21]

7 A company is designing a stochastic asset model to be used for:

   • evaluating investment management policies
   • calculating fair values; and
   • setting capital requirements

   (i) Describe the features required by such a stochastic asset model, in particular those that make it suitable for each of the required purposes. [12]

   (ii) Discuss the difficulties in designing one asset model for all these purposes using a single set of parameters. [10]
   [Total 22]

END OF PAPER