EXAMINATIONS

10 April 2002 (am)

Subject 301 — Investment and Asset Management

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

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 Actuarial Tables and your own electronic calculator.

1 Define the following terms:

(a) Capital cover
(b) Certificate of deposit
(c) Beta value
(d) Systematic risk [6]

2 (i) Outline:

(a) the classical system of corporation tax [2]

(b) the imputation system of corporation tax [2]

(ii) List the factors regarding the taxation system that investors need to consider before deciding on the most appropriate investment strategy. [2]
[Total 6]

3 A national sports body is considering building a new national sports stadium together with an office and shopping mall complex on the site of the now disused previous national stadium, situated in the suburbs of the country's capital city. As well as providing some of the finance itself, the national sports body is reliant on both the national government and commercial financial institutions to fund the project.

(i) Discuss the steps necessary to achieve an effective identification of the risks facing the project. [12]

(ii) Suggest what the major risks may be. [3]
[Total 15]

4 (i) Enterprise Value (EV) of a company is defined as the sum of the market capitalisation of the equity and the net debt of the company. Two companies in the same industry trade on different enterprise value to sales ratios. Explain why this difference may exist. [4]

(ii) Explain why it might be preferable to look at earnings before interest, tax, depreciation and amortisation (EBITDA) rather than basic earnings per share when comparing two companies operating in a global industry. [3]

(iii) (a) Define what is meant by the weighted average cost of capital (WACC). [2]

(b) Explain why one company might have a higher WACC than another and what implications this has for the two companies. [2]
[Total 11]

5 Outline the main factors that will influence the asset allocation to bonds, equities and cash in setting a long-term investment strategy. [5]

6 You are given the following market data and information about a pension fund wholly invested in domestic equities:

Date	*Market Value of fund*	*Domestic Share Index (Capital only)*	*Dividend Yield on Domestic Share Index*
31 Dec 00	2,400	1,000	2.6
31 Mar 01	2,400	1,069	2.9
30 June 01	2,700	1,184	2.8
30 Sept 01	3,000	1,198	2.6
31 Dec 01	2,800	1,120	2.8

Period	*Contribution Income/Outgo*	*Investment Income*
Q1	37	35
Q2	20	40
Q3	125	40
Q4	–35	45

(i) (a) Stating any assumptions you make, calculate:

(1) the money weighted return for each period and over the year
(2) the time-weighted return for each period and over the year
(3) the index returns over the same period [9]

(ii) Comment on the returns [3]

(iii) Compare the investment income actually received by the fund with the investment income that would have been received if the fund had been invested in the index. [2]

(iv) Using the information from the answers to (ii) & (iii), what conclusions might you draw about the stock selection policy of the fund? [3]
[Total 17]

7 (i) Describe the different ways in which a futures exchange could manage its credit risk exposure. [7]

(ii) Discuss the credit risks faced by participants in the over-the-counter (OTC) derivatives market and how these can be reduced. [5]
[Total 12]

8 (i) Outline the basis of construction for the FTSE Actuaries Share Indices [2]

(ii) List the uses to which these indices can be put. [3]
[Total 5]

9 An institutional investor based in a certain country has the equivalent of $500m in assets backing long-term, real liabilities denominated in the currency of that country. The fund has no current direct or indirect exposure to property investments.

The manager of the fund feels that commercial property in that country will increase in value in the next few years at a rate significantly above that of any other asset class.

(i) Outline the difficulties faced by the manager in gaining direct commercial property exposure. [4]

(ii) Describe briefly the difficulties the manager would face in using a property unit trust to gain exposure to commercial property. [2]
[Total 6]

10 A private investor, not subject to tax, wishes to construct a portfolio consisting of bonds and equities. The investor proposes to use the long-term historical returns on, and standard deviations of, the two asset classes as estimates of the expected future returns and risk of his portfolio. Based on this data, he wishes to construct a portfolio with the minimum risk.

(i) Discuss the suitability of his estimates of expected returns and risk levels. [3]

(ii) Discuss the parameters that will influence the return on the portfolio and the mix between bonds and equities needed to obtain the minimum risk portfolio. [For this part of the question, you may assume that the historical returns and standard deviation are accurate estimates of expected future returns and risk levels.] [8]
[Total 11]

11 (i) List four economic factors which influence the level of Government bond yields. [2]

(ii) Discuss the additional influences which lead to different yields being available on:

(a) corporate bonds
(b) equities [2]

(iii) Comment on how the real yield premiums on equities over Government and corporate bonds might be expected to move over a period of recession. [2]
[Total 6]