INSTITUTE AND FACULTY OF ACTUARIES

EXAMINATION

30 September 2013 (am)

Subject SA6 – Investment 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 before 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 three 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 Due to a severe debt crisis, all of the state pension fund's assets in Actuaria have been transferred into (non-inflation-linked) fixed interest securities. The assets are due to be transferred into a fund which will be used to recapitalise the Actuaria banks in approximately one year's time. This can be considered to be a fixed monetary liability.

(i) Describe five different financial instruments that could be used to hedge the risk in the pension fund assets during the year. [20]

Additional state assets, which are largely equity holdings, are due to be sold in the next five years, and the proceeds used to repay state debts. As well as the instruments mentioned above, it has been suggested that volatility futures might be used as a hedging tool.

(ii) Explain how volatility futures might be used for this purpose. [7]
[Total 27]

2 The CFO of a multi-national financial services company is concerned about the impact the company's UK defined benefit pension fund is having on the company accounts. When disclosing the pension costs in its accounts, the company is required to discount liabilities using a rate that reflects the yield available on high quality corporate bonds.

However, the Chairman of Trustees has told the CFO that the real deficit in the pension fund is much larger than the accounting numbers suggest and has requested additional cash contributions. The CFO believes that the company's cash is better invested in the company's day-to-day operations than in making up the pension fund deficit. Consequently he has asked the Trustees to explore using assets such as commercial property, private equity and absolute return funds as less volatile ways of generating excess returns to make up the deficit.

The Chairman of Trustees has asked for assistance in formulating a policy for investing such assets.

(i) Discuss the issues that the Trustees should consider before including the new asset classes within the pension fund's investment strategy. [12]

(ii) Outline the considerations that would need to be covered in a specific policy for the selection, management and review of such investments. [21]

The company has an asset management department. The head of the department has told the CFO that they could manage the new investments and save the company money, recognising that the company board is keen to maximise the use of "in house" service providers. The asset management department has traditionally offered active management in most equity markets. The asset management department has indicated its willingness to align its interests with those of the pension fund when negotiating the structure of fees on the mandates proposed.

(iii) Discuss the benefits and limitations of passive investment management, particularly for the new asset classes being considered. [12]

(iv) Outline the advantages and disadvantages of using an in-house asset manager compared with outsourcing. [4]

(v) Discuss the issues that need to be considered in ensuring a fair and appropriate fee proposal for the in-house department. [4]
[Total 53]

3 As the head of the pensions advisory team at an investment bank, you have been asked to make a presentation to one of the bank's corporate clients on the impact of inflation on the company's pension funds. These include both defined benefit and defined contribution arrangements. You were also asked to suggest ways in which the inflation risk could be managed. The company is concerned because the current level of inflation has been above the country's inflation target for several years. Inflation is measured and managed by the country's central bank, using interest rate policy.

(i) Explain the impact that unexpected inflation could have on the assets and liabilities of the company's pension arrangements. [8]

Although inflation is above the target, it has been falling and this trend is expected to continue. You believe that the company should encourage the pension fund trustees to hedge inflation risk as it is getting cheaper to do this. However, you recognize that longer dated inflation-linked government bonds are in short supply relative to the demand from pension funds and insurance companies.

(ii) Outline the considerations the trustees and sponsor should make in deciding whether or not to hedge the inflation risk in the defined benefit scheme. [4]

(iii) Set out the advantages and disadvantages of possible investments the pension funds could make as an alternative to buying inflation-linked government bonds. [8]
[Total 20]

END OF PAPER