INSTITUTE AND FACULTY OF ACTUARIES

EXAMINATION

24 April 2017 (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 must not start writing your answers in the booklet until instructed to do so by the supervisor.*
3. *You have 15 minutes of planning and reading time before the start of this examination. You may make separate notes or write on the exam paper but not in your answer booklet. Calculators are not to be used during the reading time. You will then have three hours to complete the paper.*
4. *Mark allocations are shown in brackets.*
5. *Attempt all three 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 wealthy European investor is considering making a large equity investment into an unquoted Chinese technology company with revenues of $2bn per annum.

The investor considers it to be a very good investment, based on reading many financial and investment publications advocating the strengths and merits of the Chinese economy.

The investor has read speculation in the financial press that the company will have an initial public offering (IPO) next year when stock will be offered to institutional investors.

The investor has approached a firm of actuarial investment consultants for advice on his proposed investment.

(i) List the headings for the questions that you might ask the investor to assess his needs and circumstances before beginning any discussion about the investment. [5]

(ii) Discuss the potential difficulties and practical problems that the investor might encounter in investing in the Chinese technology company. [8]

(iii) Outline the other factors to consider when determining the merits of the investment. [6]

(iv) Discuss other ways by which the investor could gain exposure to Chinese technology companies. [6]

Under new legislation, individuals in the UK are no longer compelled to buy an annuity on retirement. An individual investor in the UK, who is close to retirement and has a modest pension fund and no other savings, is considering investing 10% of her pension fund in the unquoted Chinese technology company.

(v) Discuss the suitability of the investment for this individual. [5]
[Total 30]

2 A large hedge fund has recently bought a controlling stake in a distressed bank. The hedge fund considered that a significant reason for the bank's financial difficulties was that it was not using modern financial instruments to manage its interest rate risk and its credit risk. This made it both uncompetitive and exposed to unnecessary risk.

The bank has never used derivatives for managing its interest rate and credit risks.

(i) Describe TWO types of derivative that the bank might use to manage its interest rate risk more effectively. [5]

(ii) Discuss how the derivatives that you identified in part (i) could be used for managing interest rate risk for the bank. [3]

(iii) Describe ONE derivative that the bank might use to manage its credit risk more effectively. [5]

(iv) Discuss how the derivative you identified in part (iii) could be used for managing credit risk for the bank. [5]

(v) Discuss how the THREE derivatives you identified in parts (i) and (iii) could also be used by the bank to increase its risk taking, as opposed to using them for risk management purposes. [6]

(vi) Describe the additional functions that would need to be put in place if the bank was to build up a significant portfolio of derivatives for risk management purposes. [6]

[Total 30]

3 The Head of Product Development at an asset management firm has observed increasing demand from pension funds over the past few years for floating rate investments, such as loans and Asset Backed Securities.

She is in the process of drafting a proposal for the New Product Committee to set out the business case for two funds that would invest in Asset Backed Securities.

One fund would focus on high quality liquid assets maturing within two years. The other fund would focus on less liquid assets with maturities of up to seven years.

(i) Describe the key features of Asset Backed Securities. [7]

(ii) Give reasons why institutional investors may be looking at a wider range of low volatility assets such as Asset Backed Securities than in the past. [8]

(iii) List the key terms that should be included in the proposals for the funds. [5]

(iv) Discuss the risks and challenges for the asset management company in designing and launching the new funds. [7]

Shortly after the new funds are launched, a bank offers the portfolio manager of the new funds some loan securities at a distressed price. The loans have been issued by a special purpose vehicle that owns the next five years’ rental income from a newly built commercial building that is fully occupied. The portfolio manager is proposing to allocate 10% of each fund’s assets to the loans, which is the maximum permitted allocation to a single issuer.

(v) Assess the appropriateness of the portfolio manager’s proposal with reference to:

(a) the investment characteristics of these assets. [8]
(b) the suitability of these assets for each fund. [5]

[Total 40]

END OF PAPER