

# EXAMINATION

27 April 2009 (pm)

## Subject SA1 — Health and Care 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.*

<p><i>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.</i></p>
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- 1** A UK health and care insurance company writes a range of health and care business, including individual critical illness, income protection and long term care products and group PMI business.

It is summer 2007. The company is concerned about the possibility of a sharp change in the economic conditions. In particular, it feels that there are indicators to suggest that credit spreads (the difference between the return obtainable on government bonds and corporate bonds) may widen dramatically, and there may be a reduction in the availability of loans from banks and other financial institutions. This will result in a shortage of liquidity for many organisations. The company is also concerned about the possibility of equity markets becoming very volatile and generally falling in value as a result of the worsened credit situation and the economy moving into recession. Consequently, the insurance company has decided to monitor new business volumes very actively.

- (i) Discuss the possible impact on the company's new business if the economic conditions described above do occur. [11]
- (ii) Describe the new business monitoring activity that would be carried out, highlighting the main complications that would arise and how these could be addressed. [6]
- (iii) Describe other changes in experience items that might result from the predicted economic conditions. [8]

The company is considering the impact that the economic conditions described above would have on the capital requirements for the company's long term health and care business. The company defines and calculates "realistic capital available" as the excess of realistic assets over realistic liabilities, both being calculated on a market consistent basis. It also performs Pillar 2 ICA calculations.

- (iv) Describe how risk is allowed for under Pillar 2 ICA calculations. [7]
- (v) Describe the possible impact on the realistic capital available to the company and its ICA calculation if the economic conditions described took place. [10]

The finance director is concerned about managing the level of risk to the business in the economic climate described above. He has therefore suggested that it would be prudent to take the following actions:

- review the benchmark asset allocation, and increase the proportion of funds invested in "less risky" asset classes
- disallow investment in subordinated debt
- restrict the investment managers so that they are forbidden from departing from the benchmark asset allocation

- (vi) Discuss these suggestions. [12]
- [Total 54]

- 2** You are the actuary in charge of product development at a UK life and health insurance company. Your company currently offers income protection insurance on a group and individual basis. The minimum deferred period offered is 13 weeks.

It has been suggested by the sales manager that a new service should be developed offering Sickness & Absence Management monitoring for companies irrespective of whether they insure with your company. This monitoring requires all employees of the client company to report their absence and the reason by telephone to a specially created unit, from the first day of absence. The unit then monitors the absentees until the employee returns to work. The unit will be staffed by nurses.

- (i) Discuss the possible advantages and disadvantages to the insurance company of developing such a service. [7]
  - (ii) Discuss the investigations required to price the Sickness & Absence Management monitoring service if the proposal went ahead. [15]
- [Total 22]

- 3** A large UK health and care insurer currently writes long term business on both guaranteed and reviewable premium rates.

- (i) Discuss the relative merits of offering policies on guaranteed and on reviewable premium rates. [5]
  - (ii) Outline the policy conditions and practices that a company should adopt for policies with reviewable premium rates in order to satisfy the requirements of Treating Customers Fairly. [8]
  - (iii) List reasons that are unlikely to be considered valid for changing a premium under a reviewable policy. [3]
  - (iv) State the main factors that need to be considered before undertaking a premium review. [8]
- [Total 24]

**END OF PAPER**