

# INSTITUTE AND FACULTY OF ACTUARIES

## EXAMINATION

4 October 2012 (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 life insurance company is considering moving into the health and care insurance market by purchasing an established UK health and care insurer.
- (i) Suggest four other ways in which it could obtain exposure to the UK health and care market, providing two advantages and two disadvantages of each suggestion. [10]

The company has decided to purchase a UK health and care insurer and has identified a possible takeover target.

- (ii) Describe how it would place a value on the target company. [18]
- (iii) List the other factors which the purchaser should take into account before completing the purchase. [18]
- [Total 46]

- 2** (i) Suggest reasons why morbidity experience differs between male and female policyholders. [6]

Health and care insurers in Actuarial are expecting a new legislative ruling, under which they will no longer be able to charge differing premiums for male and female policyholders.

- (ii) Explain why insurers may have been charging different premium rates to males and females in the individual health insurance market. [3]
- (iii) Suggest reasons why differing rates may not have been charged for group health insurance business. [3]

The marketing director has suggested that, under the new ruling, it may be a good idea to target and engage potential policyholders differently according to their gender.

- (iv) Suggest possible ways in which the insurer could do this. [4]
- (v) Discuss the marketing director's suggestion. [5]

Under the new ruling, it is not yet clear whether insurers can continue to collect gender data.

- (vi) Explain the impact on insurers of whether or not they can continue to collect gender data. [3]
- (vii) Suggest actions that the insurer could take in order to mitigate the risks arising as a result of the ruling. [6]
- [Total 30]

- 3** A new marketing director has started work at a UK health and care insurer which sells mainly individual private medical insurance (PMI) business. He wishes to increase the amount of business written and is considering a number of possible product variants.

The marketing director has suggested that because alternative medicine such as homeopathy, acupuncture and herbal treatment seems to be a growth area, the insurer should seek to attract policyholders who have a preference for alternative medicine.

- (i) Suggest product changes that could be made in order to achieve this. [3]
- (ii) Explain why cover for alternative medicine is often very limited under standard PMI policies. [2]
- (iii) List the functions of the insurer that would be affected if additional cover for alternative medicine were to be included, explaining briefly how each would be affected. [8]

Following the release of a report commenting on the prevalence of back pain amongst the UK workforce, the marketing director has also suggested that the insurer should offer back pain management as a benefit under its PMI policy.

- (iv) Suggest types of benefit that might be offered under this proposal. [2]
  - (v) Describe how the insurer would price the additional benefit(s). [9]
- [Total 24]

**END OF PAPER**