EXAMINATION

28 May 2012 (am)

Subject F201 — 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 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 both 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.

Question 1

AstraMed is a self-administered open medical scheme that primarily markets its product through a tied agency sales force. AstraMed also performs managed care service in-house, including hospital utilisation management and pharmaceutical benefit management. Over the past three years the scheme has had the following experience:

- The number of principal members and beneficiaries at the start of 2011 were 60,000 and 114,000 respectively and the average beneficiary age was 35.4.
- The projected figures for 31 December 2012 are
  - 45,000 members
  - 81,000 beneficiaries
  - Average age of 36.4 per beneficiary
- The scheme recorded a net surplus of R20.7 million in 2011. The projected result for 2012 is a deficit of R52.2 million.
- Regulation 29 reserves as at 31 December 2011 were R324.8 million and are projected to be R278.0 million at 31 December 2012. The corresponding change in the solvency ratio is from 15.09% to 15.18%
- The scheme's total assets are projected to be R345.1 million at the end of 2012.
- Total investment income for 2012 is expected to be R25.9 million.

AstraMed does not have any options with personal medical savings accounts.

The Council for Medical Schemes has expressed its concern that the scheme is not sustainable and is particularly worried by the fact that non-healthcare expenditure as a percentage of contribution income has increased from 10.4% in 2011 to 13.6% in 2012. The regulator is demanding that the scheme submit a business plan showing how it intends to reduce this percentage and raise its solvency ratio to the required level.

i) List the main components of a medical scheme's non-healthcare expenditure. (3)

ii) Describe the different steps the scheme may take to comply with the regulator's demands and comment on the likely effectiveness of each course of action given the scheme's present situation. (10)

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LargeCo, a financial services company, has approached AstraMed with an offer to purchase the scheme's administration and managed care capacity for a cash amount.

The terms of the proposed deal are as follows:

- The transaction date will be 1 January 2013.
- The scheme will become the first client of the newly formed administrator and managed care organisation and will pay fees for these services on a per-member-per month basis. LargeCo is free to market its services to other medical schemes.
- AstraMed will enter into a distribution agreement with LargeCo , which will promote the scheme through its retail broker distribution channel. Marketing is included in this agreement.
- LargeCo will provide the scheme with a guarantee. If net growth in membership of at least 15,000 members is not achieved within the first three years a penalty equal to R80 million will be payable to the scheme.
- For the first year a 50% profit sharing arrangement will be included in the administration agreement.

You have been appointed by the Board of Trustees of AstraMed to advise them on this transaction.

iii) Briefly explain the process that the scheme will have to follow in order to get this transaction approved by the relevant authorities. (5)

iv) Discuss the factors you would need to consider in advising the Board of Trustees on the merits of the offer. (10)

The scheme decides to accept the offer. Within six months the relationship between the scheme and LargeCo becomes strained as the promised volumes of new business fail to materialise – in fact, membership has reduced by 4% over this period. The scheme also experienced an unexpected, significant anti-selective move by members away from its more comprehensive options (paying up to 200% of scheme rate) to its lower options. According to call centre agents, this move could be attributed to members taking up health insurance products sold to them by LargeCo's Short Term Insurance division.

v) Discuss the implications of this experience on both Astramed and LargeCo. (5)

PLEASE TURN OVER

Astramed's executives have confronted LargeCo's head of sales and distribution regarding the membership losses. He says that the scheme's products are too expensive and that brokers are finding it difficult to sell. He further claims that, in order to generate sales, they need the scheme to do one or more of the following:

- Introduce income bands on the lowest option. The lowest income band should be attractively priced to enable brokers to sell to young people who don't earn significant income.
- Create a new "hospital plan" option with generous hospitalisation benefits but only the minimum routine benefits. This is intended to appeal to risk averse healthier customers who don't require comprehensive day to day or chronic benefits.
- Waive underwriting on pregnant applicants. LargeCo believes that this will attract younger members, who are starting families, to the scheme.
- Enhance the benefits on the most expensive option by adding comprehensive benefits for hip and knee replacements. AstraMed's closest competitor includes these benefits on its top option and brokers say they cannot compete against this.

vi) Discuss the risks and consequences to the scheme in each of these courses of action. (17)

Question 2

Feros is a nearby African country. Recently there has been a boom in the sale of health insurance policies. The basic examples of these policies cover the costs of locally provided primary care. Extended cover that offers emergency evacuation to South Africa, as well as specialist care and hospitalisation in South Africa, is available as an add-on. These add-ons are popular since Feros has a shortage of specialists as well as secondary and tertiary hospital facilities. The country currently has no regulatory framework in place for health insurance products.

i) Describe the factors that should be considered when setting the premium for the add-on cover. (8)

ii) List the measures that the insurer may employ to manage the risk on these policies.(4)

The government of Feros has decided to implement a minimum package of care, which all such policies will be required to provide.

iii) Discuss the approaches the government may take in designing an appropriate package of minimum benefits, including the merits of each approach. (15)

You are an actuary working for a South African insurer which underwrites a number of group health insurance policies that cover the employees of companies in Feros, as well as their families. The government has just announced a package of minimum benefits that will come into effect next year, including comprehensive treatment for HIV/AIDS. Your senior manager suggests that you should allow for the impact of this change by applying "the ASSA AIDS model" to the demographic profile of the existing group business to determine the price adjustment that will be required.

iv) Briefly describe the different HIV/AIDS models produced by the Actuarial Society of South Africa and explain how you would use this suite of models to assess the impact of HIV/AIDS on this business. (13)

Your company also underwrites a full range of other health-insurance products in the South African market and wishes to introduce some of these products to Feros. Because traffic accidents are a major cause of serious injury in Feros the marketing manager believes that the next new product you should be working on must offer peace of mind to consumers who are concerned about such injuries. This product would be sold as an add-on to the medical cover described above.

PLEASE TURN OVER

v) Discuss the various types of health insurance products available and to what extent they could meet this need. (8)

vi) State, with reasons, which would be the most appropriate product. (2)

