

INSTITUTE AND FACULTY OF ACTUARIES

EXAMINATION

22 September 2022 (am)

Subject SP1 – Health and Care Specialist Principles

Time allowed: Three hours and twenty minutes

In addition to this paper you should have available the 2002 edition of the Formulae and Tables and your own electronic calculator.

If you encounter any issues during the examination please contact the Assessment Team on T. 0044 (0) 1865 268 873.

1 In its product range, Company A has an individual Critical Illness (CI) product with reviewable premiums. The terms and conditions of this product allow Company A to alter the premiums if the actual experience of morbidity or any other assumptions in the premium basis for the CI portfolio is different from what was originally expected. Company A performs the premium reviews every 5 years.

- (i) Discuss the advantages and disadvantages of offering reviewable premiums on its CI product from the perspective of Company A. [6]

Company A has an existing reinsurance arrangement with Reinsurer B. The reinsurance treaty for this arrangement is written on a risk excess of loss (XoL) basis that relates to the losses of each individual reviewable CI policy. Reinsurance premiums are reviewable and Reinsurer B performs the reinsurance premium reviews every 2 years.

Reinsurer B has decided to reduce its reinsurance premium rates in its most recent reinsurance premium review. In response to this, the Marketing Director of Company A has proposed reducing the premium rates currently being charged on its existing CI business with reviewable premiums.

- (ii) Discuss the Marketing Director's proposal. [12]

[Total 18]

- 2** Company A is a large health and care insurance company, and a market leader in both Income Protection (IP) and Private Medical Insurance (PMI) products in Country X. The IP policies are written on a guaranteed premium basis while the PMI policies are written on an annually renewable basis.

Country X has recently implemented a new regulatory solvency regime that resulted in a significant increase in the solvency capital requirements relating to Company A's IP business.

- (i) Suggest possible reasons why the new regulatory solvency regime could impact the solvency capital requirements for Company A's IP business more than its PMI business. [8]

Company A's Finance Director has proposed the following options to reduce the financial impact on the company's higher solvency capital requirements:

- (a) reinsure a significant proportion of the IP portfolio to reinsurer(s) that are external to Company A.
(b) stop writing new IP business and run off the existing IP portfolio over time.
(c) sell the entire IP portfolio to another insurer.
- (ii) Discuss the advantages and disadvantages for Company A of each of the Finance Director's proposed options. [9]

Company A has decided to sell its entire IP portfolio. Company B is a large health and care insurance company that specialises in selling IP products in Country X. Company B is one of the insurers invited by Company A to make an offer on its IP portfolio.

- (iii) Discuss the factors that Company B may consider in arriving at a purchase price for Company A's existing IP portfolio. [10]
- [Total 27]

3 Company A is a health and care insurance company that specialises in accelerated and standalone individual Critical Illness (CI) products. With the aim of improving the marketability of its CI products, the Product Development Director has proposed adding the following features to new CI policies:

- (a) extending the list of illnesses covered.
 - (b) a continuation option where the policyholder can choose, without having to provide evidence of health, to continue the cover provided by the policy under circumstances where it would have otherwise ceased.
 - (c) tiered benefits where for one or more of the illnesses covered, the payment of the sum insured is linked to the severity of the disease.
- (i) Describe the risks associated with each of the above features from the perspective of Company A. [9]
 - (ii) Suggest possible actions Company A may take to mitigate the risks identified in part (i) above. [6]
- [Total 15]

4 The government of a small developing country (Country B) is considering increasing the state healthcare support to its citizens. The methods of state healthcare support considered by the government include:

- (a) direct provision.
 - (b) lump sum cash payment.
 - (c) regular income.
- (i) Discuss the advantages and disadvantages of each of the above methods of state healthcare support from the perspective of the government. [6]
 - (ii) Discuss the advantages and disadvantages of each of the above methods of state healthcare support from the perspective of the citizens of Country B. [6]

The government of Country B currently uses the ‘pay-as-you-go’ method to fund its welfare expenditure. It has been proposed that a system of ‘forward funding’ could replace the ‘pay-as-you-go’ method.

- (iii) Discuss the factors that the government of Country B may consider before replacing the ‘pay-as-you-go’ method with the ‘forward funding’ method. [8]
 - (iv) Outline the information that the government may need in order to calculate the present value of the specific healthcare fund using the ‘forward funding’ method. [4]
- [Total 24]

5 Company A is an established health and care insurer that specialises in individual and group Private Medical Insurance (PMI) business in Country X. Country X's healthcare facilities have been deteriorating over recent years, and there had also been a pandemic outbreak in the last 18 months. Company A has made significant financial losses over the last 2 years.

(i) Suggest possible reasons for Company A's significant financial losses. [10]

(ii) Describe the process that Company A may take for investigating claims experience. [6]

[Total 16]

END OF PAPER