INSTITUTE AND FACULTY OF ACTUARIES

EXAMINATION

4 May 2020 (am)

Subject SA1 – Health Care Specialist Advanced

Time allowed: Three hours and fifteen minutes

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 Group A is a global insurance group specialising in Private Medical Insurance (PMI) business. It has insurance companies in a number of countries and territories across Europe, Africa, Asia, North America and South America. Group A's head office is in Europe and group reporting is subject to the European Union's Solvency II requirements. Each insurance company is also required to report locally to their regulators under the corresponding local solvency regulation.

(i) Outline each pillar of the three 'pillars' approach under the Solvency II framework. [4]

(ii) Outline, in respect of Group reporting under Solvency II:

(a) Group reporting requirements. [3]

(b) Third country equivalence. [2]

Group A is considering expanding its business into a new territory, Country X. Unlike other jurisdictions in which Group A currently operates, Country X's PMI is based on a system of Community Rating and Risk Equalisation.

(iii) Define Community Rating. [1]

(iv) Discuss the advantages and disadvantages of this system. [4]

(v) Describe Risk Equalisation. [2]

(vi) Discuss the advantages and disadvantages of each of the following approaches from Group A's perspective as a means of entering the health insurance market in Country X:

(a) Purchase an existing health insurer in Country X [4]

(b) Enter into a joint venture with a local insurer in Country X that does not currently write health insurance business, where Group A will underwrite the PMI policies with the local insurer fronting the product sales [4]

(c) Set up a new company in Country X. [4]

Group A has decided that the most appropriate approach is to purchase an existing health insurer in Country X. Company B is a local health insurer operating in Country X. It is the subsidiary of Group C, one of Group A's key competitors. Company B's business growth has been static over the last few years. Although the overall profits disclosed in its published financial statements over these years have been declining, the business remains profitable. Group C has recently decided to put Company B up for sale, and Group A is one of the companies that has been invited to enter a bid to purchase Company B.

(vii) Outline the factors that Group A would need to consider before entering a bid for Company B. [20]

[Total 48]

2 (i) State the principles of investment for a health and care insurance company. [2]

Country Y is a stable, developed country with an excellent credit rating.

For many years, Country Y has been a member of an association of countries that has had the power to make rules that apply to every country in the association.

Before joining the association, Country Y had a developed health and care insurance market and set flexible, pragmatic insurance regulation, in consultation with its insurance companies and actuaries. After joining the association, Country Y had to comply with the insurance regulations set by the association.

Many of the other countries in the association are less stable and have lower levels of credit rating.

The rules of this association allow the individual countries to issue sovereign debt (gilts) with coupon rates that reflect their individual level of creditworthiness.

However, the reserving regulations of the association require any insurance company operating in any of the association's countries to assume that all sovereign debt is equivalent. As a result, insurers have to assume that the same credit, liquidity, etc., margins will apply to the sovereign debt of every association country.

Country Y is going to leave the association. This is expected to increase the creditworthiness of gilts issued by Country Y. Country Y will also be able to set its own insurance regulations; in particular, it will expect margins on investments to reflect the actual risk of that investment.

(ii) Discuss the effects that leaving the association will have on the reserves and capital requirements a health and care insurance company in Country Y will hold. [10]

After gaining independence from the association, Country Y has to decide on how to regulate its insurance industry. Country Y is consulting actuaries on the following four options:

Option 1. Retain the rules of the association at the date of independence and subsequently incorporate any other rules made by the association.
Option 2. Retain the rules of the association at the date of independence but decide on a rule-by-rule basis whether to adopt any future association rule changes.
Option 3. Return to the insurance regulations originally set in Country Y.
Option 4. Allow insurance companies to follow either regulation, provided they can demonstrate they are at least equivalent to Country Y's insurance regulations.

(iii) Discuss the advantages and disadvantages of each of the options from the point of view of the three interested parties:

(a) Country Y's health and care insurance companies [12]

(b) Country Y's consumers [4]

(c) the Country Y Regulator. [4]

[Total 32]

3 In Country Z all health and care insurers provide non-profit, non-linked standalone Critical Illness (CI) insurance on guaranteed terms. All health and care insurers adopt industry standard CI definitions that solely cover heart attack, stroke and cancer on the insured life only.

One health and care insurer is looking to differentiate its product by extending the cancer cover provided by their policy to include a children's cancer option.

(i) Suggest ways, other than product features, through which the insurer could differentiate itself. [3]

(ii) Describe what the insurer would need to consider in order to include the children's cancer option. [6]

Another health and care insurer decides to redesign its CI product to be a unit-linked product with a reviewable morbidity charge deducted monthly from the unit funds, a fixed allocation rate and a reviewable monthly policy fee and an annual fund-based management charge. The health and care insurer offers no other unit-linked products.

(iii) Explain what a morbidity charge represents. [1]

(iv) List the factors that will influence the size of the morbidity charge. [2]

(v) Discuss the impact on the health and care insurer's risk following the change to a unit-linked form of the product. [8]

[Total 20]

END OF PAPER