INSTITUTE AND FACULTY OF ACTUARIES

EXAMINATION

1 October 2019 (pm)

Subject SA3 – General Insurance: Specialist Advanced

Time allowed: Three hours and fifteen minutes

INSTRUCTIONS TO THE CANDIDATE

1. *Enter all the candidate and examination details as requested on the front of your answer booklet.*

2. *You must not start writing your answers in the booklet until instructed to do so by the supervisor.*

3. *Mark allocations are shown in brackets.*

4. *Attempt all questions, begin your answer to each question on a new page.*

5. *Candidates should show calculations where this is appropriate.*

Graph paper is NOT required for this paper.

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.

1 (i) List typical coverages under a short-term (non-annual) travel insurance policy. [4]

(ii) Outline the main differences between annual travel policies and those covering a single short-term trip. [4]

A general insurance company currently writes only short-term travel insurance policies in conjunction with ten different travel agents specialising in luxury holidays. Approximately half of this business is written through a major UK-based travel company.

The insurance company pays commission of between 20% and 40% of the gross premium to the travel companies to cover their costs and incentivise them to sell policies.

(iii) Suggest reasons why the commission percentage is variable. [4]

A director of the insurance company is keen to expand the business. They have suggested that the insurance company should start to sell annual travel policies solely through the internet. The reasoning behind this is that annual policies are a natural extension for the current business that will require little extra cost to set up.

The director also points out that overall costs as a percentage of premium will drop, as selling direct to customers through the internet will be more efficient than the current model of using travel agents as the sales force.

(iv) Discuss, under the following headings, the director's suggestion regarding expanding the business to also sell annual policies:

(a) set-up costs
(b) ongoing costs
(c) pricing
(d) competition.

[10]
[Total 22]

2 Due to high flood losses in recent years, insurance premiums in Country A have increased substantially for any properties in flood-prone areas.

A politician in Country A has proposed legislation to ban the use of property location as a rating factor, stating that the current approach taken by insurers is unfair and unequal to both individuals and businesses.

(i) Comment on the politician's statement. [4]

(ii) Discuss the potential implications for general insurance companies and policyholders if the proposed legislation were to be introduced. [5]

The legislation was not introduced, and the government is instead proposing to launch a National Flood Insurance Programme (NFIP) as an alternative to the existing insurance market. The programme offers a defined sum insured of $250,000 for buildings and $100,000 for contents, for flood losses only. The cover would be available to all individuals in the country at the same rate.

(iii) Discuss the potential implications of the programme for the private insurance market. [8]

The government's objective is that the programme should be self-funding over time. To meet this objective, it has been proposed that all policies should be priced based on the national average loss cost over the last ten years (recalculated annually on a rolling basis), with a fixed margin above the loss cost.

(iv) Assess the extent to which the programme will meet its objective to be self-funding. [5]

The government is looking to minimise the number of small claims and ensure that policyholders retain some level of risk. The government is considering whether to include a deductible, an excess or a franchise, of $5,000.

(v) Define deductible, excess and franchise, stating the key differences between these three policy terms. [5]

(vi) Determine which policy term is most likely to achieve the government's objective. [4]

[Total 31]

3 (i) Define fronting. [2]

Harp is a global general insurance company underwriting large commercial risks. Over several years, Harp has participated in several fronting arrangements (as both cedant and reinsurer) to support its growth.

(ii) Outline possible reasons Harp has been using fronting arrangements. [6]

Harp determines its solvency position on three different valuation bases (A, B and C). The solvency position on each valuation basis is outlined in the table below.

Basis	*A*	*B*	*C*
Own funds	1,300	1,400	1,500
Calculated capital	950	750	900
Cover ratio	137%	187%	167%

(iii) Suggest possible reasons why Harp uses three valuation bases. [4]

(iv) Suggest three possible reasons for the different bases for each of:

(a) own funds
(b) capital required.

[6]

The management team of Harp is considering buying Rose. Rose is a general insurance company which specialises in providing liability insurance for small and medium-sized businesses (SMEs). Rose operates in a different market to Harp. The Head of Mergers and Acquisition ('M&A') at Harp has commented that *"Buying Rose will improve our cover ratio because there will be significant capital model diversification"*.

(v) Outline factors that affect diversification within a capital model. [3]

(vi) Discuss the Head of M&A's statement. [6]

(vii) Outline ways Harp could estimate the potential capital model diversification benefits. [5]

(viii) List the data that Harp may request to support capital-related investigations prior to acquisition. [5]

Harp has an internal Underwriting Standard that sets out certain criteria that must be met for Harp to write specific business.

(ix) List possible criteria Harp might have in its Underwriting Standard. [4]

Some of Rose's business does not meet Harp's Underwriting Standard. In order to deal with this, Harp considers two options:

- Option A: Perform a loss portfolio transfer of these lines of business
- Option B: Reinsure the lines of business.

(x) Outline the advantages and disadvantages of each option. [6]

[Total 47]

END OF PAPER