INSTITUTE AND FACULTY OF ACTUARIES

EXAMINATION

20 April 2021 (am)

Subject SA3 – General Insurance 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.

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

1 Country X is a large emerging market country with a population of 100 million. It attracts lots of tourists due to its climate, costs of living and generally relaxed laws, and its economy is very dependent on its tourist industry.

Country X has road traffic laws although its citizens and tourists know that the laws are not strictly enforced. Insurance is not compulsory for motorists. Recent figures published by the World Health Organisation (WHO) have shown that Country X has the highest number of road fatalities per capita per year in the world. Despite this, very few citizens take out motor insurance, which is offered by a few domestic private insurance companies.

(i) Suggest possible reasons why few citizens of Country X buy motor insurance. [4]

(ii) Comment on whether increasing the number of people buying motor insurance would be likely to reduce the number of road fatalities. [4]

(iii) Discuss whether the government should consider making motor insurance compulsory. [6]

(iv) Outline advantages and disadvantages of the government setting up a state-owned motor insurer. [6]

[Total 20]

2 (i) Describe a Hard Market. [5]

(ii) Describe ways in which premium rate changes might be used in reserving processes. [4]

(iii) Outline factors to consider when determining how much credibility to give to premium rate changes in a reserving exercise. [7]

(iv) Outline specific factors that might affect rate changes for the following types of business:

(a) Non Proportional Property Treaty in the USA

(b) UK employers' liability

(c) Satellite launch insurance

(d) Rolling monthly mobile phone insurance policies written through a binding authority.

[8]

[Total 24]

3 (i) List typical risks of launching a new product. [6]

Company Y is a start-up general insurer offering home insurance. The product is sold online where the insurer keeps a fixed percentage of monthly premiums and the rest of the premiums are used to pay out claims and make donations to charity.

(ii) Outline specific risks of this product launch. [4]

(iii) Outline potential benefits of this product design from the perspective of the following stakeholders:

(a) Company Y

(b) Company Y's customers

(c) Company Y's investors

(d) regulators.

[8]

(iv) Outline potential implications of this product design for:

(a) pricing.

(b) reserving.

(c) capital.

[6]

[Total 24]

4 In Country Z, the government sets Injury Discount Rates (IDRs) for courts to use when determining lump sum claim settlements for seriously injured individuals with long-term care needs and loss of earnings.

(i) Describe how Injury Discount Rates might help the courts to determine lump sum settlements. [4]

(ii) List four classes of (re)insurance business likely to be affected by Injury Discount Rates, stating the probable materiality of the rates to overall claims experience for each class. [6]

The government of Country Z is currently reviewing the Injury Discount Rates.

(iii) Suggest why the government may be reviewing the Injury Discount Rates, considering the factors it would assess in setting the rates. [10]

(iv) Outline potential implications of a significant change in the Injury Discount Rates for the (re)insurance market. [8]

The Finance Director of an insurance company with significant exposures to a change in the Injury Discount Rates is proposing not to make any adjustments until the government's review is finalised and new rates are published.

(v) Comment on this approach. [4]

[Total 32]

END OF PAPER