INSTITUTE AND FACULTY OF ACTUARIES

EXAMINATION

4 May 2020 (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 from the approved list.

1 (i) Define Events Not In Data (ENIDs) in the context of Solvency II Technical Provisions. [2]

(ii) Discuss the advantages and disadvantages of requiring insurers to allow for ENIDs on their Solvency II Balance Sheet. [6]

A reinsurer writes the following lines of business:

- Property catastrophe
- Motor excess liability
- Adverse development cover.

(iii) Outline two potential ENIDs for each line of business that the reinsurer might consider when determining its ENID allowance. [6]

The reinsurer produces its best estimate claims reserves using a stochastic model, from which it takes the mean of the modelled claims distribution as its best estimate. It does not hold an ENID allowance, on the grounds that using a stochastic model already simulates a range of potential outcomes beyond those reflected in its claims history.

(iv) Evaluate the reinsurer's ENID approach. [6]
[Total 20]

2 ‘Insurance penetration’ is a measure of the level of development of an insurance sector in a country. It is typically measured by total premiums in the country as a percentage of Gross Domestic Product (GDP).

(i) List reasons why insurance penetration may vary between countries. [6]

Country A is a large country experiencing high rates of economic growth. Country A’s general insurance market has a lower level of insurance penetration compared to the global average rate of insurance penetration.

(ii) Explain why Country A’s insurance regulator might want to increase insurance penetration. [3]

(iii) Suggest six actions the regulator might take to increase insurance penetration. [6]

The government of Country A operates a general insurance company that sells a low-cost all-in-one insurance product for low income households that covers home, motor and health risks.

(iv) Outline four potential advantages and four potential disadvantages of this low-cost all-in-one insurance product. [4]

The insurance company has experienced extreme losses in recent years and the government now plans to exit the insurance market.

(v) State three ways in which the government can exit the insurance market. [3]

(vi) List the advantages and disadvantages of the three methods identified in part (v) from the perspective of the government. [8]

[Total 30]

3 (i) Contrast the process of becoming a corporate name on a Lloyd's syndicate with the process of establishing a wholly-owned subsidiary, for entering the London Market. [8]

(ii) Describe the Lloyd's Chain of Security. [4]

(iii) Describe the Reinsurance to Close (RITC) process in the context of a Lloyd's syndicate. [5]

(iv) Describe the circumstances and consequences of the RITC process not being concluded. [5]

A Lloyd's syndicate, Syndicate R, specialises in providing reinsurance for worldwide commercial property. It began writing business in the 2011 Year of Account and stopped writing business at the end of the 2017 Year of Account.

In all cases to date RITC has been paid into the following year of the same syndicate, with all prior years now closed into the 2017 Year of Account.

The figures below summarise the syndicate's position with respect to RITC as of 31 December 2019. All figures are in £million.

Original Year of Account	*RITC premium paid at closure*	*Net claims paid after RITC*	*Net reserves (outstanding and IBNR)*
2011	20	10	0
2012	21	14	0
2013	23	24	0
2014	30	31	0
2015	40	24	10
2016	48	40	30

(v) Suggest, with reasons, an approximate estimate of the volume of premium that might have been written by Syndicate R for the 2017 Year of Account. [4]

(vi) Give three examples of potential drivers of loss movement following a RITC transaction. [3]

As Syndicate R stopped writing business in 2017, there is no 2018 Year of Account available for RITC. Syndicate R will need to find another party to take over any remaining liabilities and has started discussions with Syndicate S.

An actuary working for Syndicate S is carrying out a review to determine the RITC premium the syndicate would require to take on the 2017 and prior years of Syndicate R.

(vii) Outline the investigations the actuary may carry out as part of this review, considering the following:

(a) best estimate of liabilities

(b) uncertainty in the liability estimate

(c) trends in the data

(d) data requirements.

[8]

The actuary is considering what margin, if any, Syndicate S would require above its best estimate of Syndicate R's liabilities.

(viii) Discuss the margin requirement for Syndicate S. [5]

(ix) Describe any operational factors the actuary should consider when assessing whether it would be appropriate for Syndicate S to take on the outstanding liabilities of Syndicate R. [8]

[Total 50]

END OF PAPER