THE CHARTERED INSURANCE INSTITUTE

P97

Diploma in Insurance

Unit P97 – Reinsurance

April 2015 examination

Instructions

- Three hours are allowed for this paper.
- **Do not begin writing until the invigilator instructs you to.**
- **Read the instructions on page 3 carefully before answering any questions.**
- Provide the information requested on the answer book and form B.
- You are allowed to write on the inside pages of this question paper, but you must **NOT** write your name, candidate number, PIN or any other identification anywhere on this question paper.
- The answer book and this question paper **must both be handed in personally by you** to the invigilator before you leave the examination room. **Failure to comply with this regulation will result in your paper not being marked and you may be prevented from entering this examination in the future.**

Unit P97 – Reinsurance

Instructions to candidates

Read the instructions below before answering any questions

- **Three hours** are allowed for this paper which carries a total of 200 marks, as follows:

Part I	14 compulsory questions	140 marks
Part II	2 questions selected from 3	60 marks

- You should answer **all** questions in Part I and two out of the three questions in Part II.
- You are advised to spend no more than two hours on Part I.
- Read carefully all questions and information provided before starting to answer. Your answer will be marked strictly in accordance with the question set.
- The number of marks allocated to each question part is given next to the question and you should spend your time in accordance with that allocation.
- You may find it helpful in some places to make rough notes in the answer booklet. If you do this, you should cross through these notes before you hand in the booklet.
- It is important to show each step in any calculation, even if you have used a calculator.
- If you bring a calculator into the examination room, it must be a silent, battery or solar-powered non-programmable calculator. The use of electronic equipment capable of being programmed to hold alphabetic or numerical data and/or formulae is prohibited. You may use a financial or scientific calculator, provided it meets these requirements.
- Answer each question on a new page. If a question has more than one part, leave six lines blank after each part.

PART I

Answer ALL questions in Part I
Note form is acceptable where this conveys all the necessary information

1. Outline **five** services that brokers offer in addition to placing clients' reinsurance business. **(10)**

2. **(a)** Explain briefly the key difference between alternative risk transfer (ART) and the traditional insurance marketplace. **(2)**

(b) Explain briefly **three** ART products. **(6)**

3. **(a)** Explain the reasons why estimated maximum loss (EML) is important to reinsurers, stating how it is calculated and used. **(8)**

(b) Insurer A has a risk valued at £5 million which is written 100% by its reinsurer B. The EML has been determined at 70%. Reinsurer B purchases a facultative excess of loss reinsurance for £2 million excess of £1.5 million. Insurer A is notified of a loss giving rise to a valid claim of £4 million; reinsurer B has no other reinsurance on this risk.

Calculate how much of the loss is borne by the original insurer A and how much by its reinsurer B. **(4)**

4. Explain the purpose and operation of premium and claims reserves in proportional treaties. **(8)**

5. Explain the **two** different bases upon which the period of a property non-proportional contract may be based. **(8)**

6. State **three** particular features that a reinsurance underwriter must take into account when writing a yacht account. **(6)**

7. Insurance company XYZ (XYZ) writes property business up to a maximum sum insured of £1 million and considers the following two possible reinsurance programmes, each designed to limit its maximum liability per risk to £200,000.

<u>Programme 1</u>
80% quota share with 40% ceding commission subject to maximum gross acceptance of £1 million.

<u>Programme 2</u>
Risk excess of loss (XOL) cover of £800,000 excess £200,000, premium adjustable at 20% of the original gross premium (OGP).

The company's OGP is £20 million and its commission and expense ratios relative to the OGP are 15% and 20% respectively.

The historic record shows that, during the previous year, total claims amounted to £10 million but only ten claims exceeded the £200,000 deductible under the proposed risk XOL. The total recoveries that would be made amount to £3 million.

Calculate, **showing all your workings**, the net profit to XYZ under **each** programme, stating which one would have been more beneficial to XYZ. **(15)**

8. Explain the factors to be taken into account by a reinsured when considering the security of reinsurers. **(14)**

9. Explain the significance of *Charter Reinsurance Co Ltd v Fagan* (1996). **(6)**

10. **(a)** Outline the purpose and use of the currency fluctuation clause. **(4)**

(b) Explain briefly the three stage process to calculate the amount of the loss to be paid in the contract currency. **(6)**

11. Outline the key features for the calculation of excess of loss premiums for a property catastrophe programme. **(15)**

QUESTIONS CONTINUE OVER THE PAGE

12. State the underwriting considerations that a reinsurer needs to take into account when writing a public liability account. **(12)**

13. Insurance company ABC has the following reinsurance programme in place:

- 12 months at 1 January 2014, cover is £200,000 excess of £200,000, any one loss, subject to one reinstatement at 100% additional premium as to time, and pro-rata as to amount.
- Minimum and deposit premium £20,000 adjustable at a rate of 2% of gross net premium income.
- Gross income declared at expiry was £1.5 million.
- On 1 March 2014, there was a loss of £300,000 net from ground up.

Calculate, **showing all your workings**, the reinstatement premium due initially and an additional payment of reinstatement premium after the premium adjustment. **(8)**

14. Explain briefly **four** different types of policy providing personal accident cover which are usually found in an aviation portfolio. **(8)**

Part II questions can be found on pages 8 and 9

PART II

Answer TWO of the following THREE questions
Each question is worth 30 marks

15. Property Insurance Company ABC has acquired the commercial property portfolio of another insurer and, as a result, its property premium income will double.

(a) Existing reinsurers are asked to provide a quotation for the combined business.

Identify the additional information they require in respect of:

(i) the acquired portfolio; **(6)**

(ii) the combined portfolio. **(4)**

(b) Explain the **two** methods used by reinsurers to calculate a risk excess of loss premium. **(10)**

(c) Explain why there might be an increase in the retention of the Property Insurance Company ABC and an increase in the treaty programme capacity. **(10)**

16. Insurance Company ZZZ (ZZZ) reinsured its personal accident account on a quota share basis during the developmental phase. The account has proved to be profitable and whilst future growth is anticipated, it is now seen as a mature and stable class of business.

The quota share treaty has served its purpose and ZZZ now wants to retain more risk and more premium income. The Reinsurance Manager is considering the merits of either a surplus treaty or a risk excess of loss treaty.

(a) Compare the **advantages** and **disadvantages** to ZZZ of these two types of reinsurance for this class of business. **(16)**

(b) Identify what information will be required by prospective reinsurers in order for ZZZ to be granted protection by one of these methods of reinsurance. **(8)**

(c) Outline how the accumulation of loss from the same event might be protected by reinsurance. **(6)**

17. Insurance Company ABC (ABC) has a combined excess of loss (XOL) programme placed on a risks attaching basis covering motor liability, public liability, products liability and employers' liability. The reinsurers on the XOL programme of ABC are alarmed by the deterioration of the results since 2010 and the programme is now showing a significant loss.

The 2010 underwriting year development results for the combined programme are as follows:

2010 underwriting year					
Results at	31.12.2010	31.12.2011	31.12.2012	31.12.2013	31.12.2014
Excess of loss claims					
Paid	100,000	300,000	650,000	1,150,000	2,250,000
Outstanding	650,000	1,200,000	1,150,000	1,100,000	750,000
Total	750,000	1,500,000	1,800,000	2,250,000	3,000,000
Excess of loss premium (including reinstatements)	1,500,000	1,700,000	1,900,000	1,900,000	1,900,000
Result	750,000	200,000	100,000	(350,000)	(1,100,000)

(a) Outline the factors that may have contributed to the deterioration in the treaty programme results. **(12)**

(b) Explain, in respect of the factors in **part (a)** above, the provisions of the clauses that are usually included in excess of loss treaty wordings for the purpose of mitigating the reinsurers' liability. **(18)**

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