

P97

Diploma in Insurance

Unit P97 – Reinsurance

October 2017 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. Describe briefly **five** different types of insurer that may purchase reinsurance. **(15)**

2. The Property Insurance Company (PIC) insured a factory valued at £20,000,000 which it wrote 100%. Having assessed the estimated maximum loss to be 70%, the company purchased £10,000,000 excess of £4,000,000 facultative reinsurance cover.

The factory suffered a fire, giving rise to a valid claim of £16,000,000. PIC had no other reinsurance on this risk.

Calculate:
 - (a) how much is paid to the original insured; **(1)**
 - (b) how much is recovered from the facultative reinsurer; **(1)**
 - (c) **showing all your workings**, how much is paid by PIC, net of reinsurance. **(3)**

3. Outline **two** features of the way the reinsured pays premium in respect of:
 - (a) an excess of loss treaty; **(4)**
 - (b) a surplus treaty. **(4)**

4. Explain briefly **four** ways a reinsurer may restrict its exposure under a quota share treaty. **(8)**

5.
 - (a) Explain briefly the term reinsurance for common account. **(3)**
 - (b) State **three** reasons why an insurer would offer reinsurance for common account to its reinsurers. **(3)**

6. Under the special termination clause:
- (a) state **four** circumstances that give either party to a reinsurance treaty the right of immediate cancellation; (8)
 - (b) state the liability of the reinsurer under a non-proportional treaty in respect of losses which have occurred before termination; (2)
 - (c) explain briefly what happens to the outstanding liabilities if a proportional reinsurance treaty is terminated on a:
 - (i) portfolio transfer basis; (2)
 - (ii) run-off basis. (2)
7. A factory, valued at £80,000,000, is insured with two insurers who take equal shares of £40,000,000. Both insurers have a reinsurance programme in place.
- Insurer X has a nine-line surplus reinsurance treaty with a retention of £4,000,000.
 - Insurer Y has a facultative excess of loss reinsurance of £36,000,000 excess of £4,000,000.
- The following three losses from ground up have occurred:
- Loss 1: £4,000,000
 - Loss 2: £8,000,000
 - Loss 3: £12,000,000
- (a) Calculate, **showing all your workings**, the net loss for **each** insurer and the recovery from their reinsurers for **each** loss. (12)
 - (b) State **one** advantage and **one** disadvantage to Insurer Y of electing to place its reinsurance on an excess of loss basis for this factory. (2)
8. (a) Define estimated maximum loss (EML). (2)
- (b) Explain briefly, using an example, EML error and how it can occur. (4)

QUESTIONS CONTINUE OVER THE PAGE

9. Outline the doctrine of *contra proferentem*, explaining how it applies to reinsurance contracts. (6)
10. (a) List **five** types of risk that make up a typical marine hull account. (5)
- (b) State **five** ways that accumulations may arise in the marine portfolio. (5)
11. (a) Explain how a facultative obligatory reinsurance treaty operates and when it is used by the reinsured. (10)
- (b) Outline the advantages and disadvantages of a facultative obligatory reinsurance treaty for the reinsured. (4)
12. ABC Insurance Company has the following reinsurance programme in place for its property account:
- £300,000 excess of £300,000 each and every loss.
 - Reinstatements: two at 100% additional premium pro rata to amount.
 - Minimum and deposit premium: £100,000.
- The following losses have occurred from ground up in chronological order:
- Loss 1: £450,000
 - Loss 2: £400,000
 - Loss 3: £600,000
 - Loss 4: £550,000
- Calculate, **showing all your workings**, the reinstatement premium due and the cover remaining in place, after recovery of **each** of the above losses. (10)
13. (a) Identify **eight** factors that a reinsurance buyer would take into consideration when designing a reinsurance programme. (8)
- (b) Explain briefly **three** objectives that the reinsurance buyer may seek to achieve when arranging its reinsurance programme. (6)

14. (a) List **five** classes of business found in an aviation account. (5)
- (b) State **five** key items of information a reinsurer would require when underwriting an aviation account. (5)

PART II QUESTIONS CONTINUE OVER THE PAGE

PART II

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

15. MLM Insurance Company (MLM) purchased the following per risk excess of loss:

Limit: £5,000,000

Excess: £1,000,000

Reinstatement: Unlimited, free

During the year, MLM suffers the following losses during Hurricane Alice.

- Loss 1: £2,000,000
- Loss 2: £7,500,000
- Loss 3: £3,250,000
- Loss 4: £750,000
- Loss 5: £5,000,000

- (a) Calculate, **showing all your workings**, the total recoveries from the per risk excess of loss for Hurricane Alice. (6)
- (b) Calculate, **showing all your workings**, MLM's net loss from Hurricane Alice. (2)
- (c) The management of MLM are concerned at the size of their net loss from a single event, and consider purchasing a catastrophe excess of loss treaty.
- (i) Outline, with justification, a suitable reinsurance structure that will reduce MLM's exposure to events such as Hurricane Alice. (6)
- (ii) Describe the changes that would need to be made to the existing wording, including any clauses and warranties that would be added or changed, if MLM decided to convert their structure to a catastrophe excess of loss treaty. (16)

16. Motorline Insurance Company purchased excess of loss reinsurance cover for its book of motor business. Losses affecting its excess of loss programme for the underwriting year 2009 have developed over the last eight years as shown in the table below:

Figures in (£000s)	1 st year	2 nd year	3 rd year	4 th year	5 th year	6 th year	7 th year	8 th year
Paid claims	–	275	550	1,100	1,700	2,800	3,800	5,000
Outstanding claims	600	2,000	2,750	3,000	2,800	2,200	1,400	500
Incurred claims	600	2,275	3,300	4,100	4,500	5,000	5,200	5,500

- (a) Explain briefly **five** possible reasons for the increase in claims to the excess of loss programme. (10)
- (b) Discuss how a reinsurer might mitigate the effects of the claims development in a motor liability excess of loss treaty, taking into account appropriate treaty clauses and conditions. (20)
17. (a) Explain briefly what is meant by the term hard market. (3)
- (b) Describe the circumstances that may lead to a hard reinsurance market and explain the consequences of that hard market to the reinsured. (15)
- (c) During a hard market, some insurance companies may look at other ways of managing their exposures.
- Describe briefly **three** of the alternatives available to an insurance company if it does not purchase traditional reinsurance, explaining their **advantages** and **disadvantages**. (12)

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