



**THE CHARTERED INSURANCE INSTITUTE**

**DIPLOMA**

**APRIL 2010 EXAMINATION PAPER**

**UNIT P97  
REINSURANCE**

**INSTRUCTIONS**

- Three hours are allowed for this paper.
- Fill in the information requested on the answer booklet and on 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 booklet and this question paper must be handed in personally by you to the invigilator before you leave the examination. Failure to do this may result in your paper not being marked and you may be prevented from entering this examination in future.**

**READ THE INSTRUCTIONS OVERLEAF CAREFULLY BEFORE ANSWERING ANY QUESTIONS.**



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**P97 – Reinsurance**

**CANDIDATE INSTRUCTIONS**

**READ THE INSTRUCTIONS BELOW BEFORE ANSWERING ANY QUESTIONS.**

Three hours are allowed for this paper. You should answer all questions in Part I and two out of the three questions in Part II.

The paper 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 are advised to spend no more than two hours on Part I.

The number of marks allocated to each question part is shown next to the question and you should spend your time in accordance with that allocation.

Answer each question on a new page. If a question has more than one part, leave several lines blank after each part.

It is important to show each step in any calculation, even if you have used a calculator.

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.

**Answer ALL questions in Part I.**

**Note form is acceptable where this conveys all the necessary information.**

1. (a) Explain briefly the purpose of the hours clause. (6)
- (b) Give one advantage and one disadvantage of an hours clause for:
  - (i) the reinsured; (2)
  - (ii) the reinsurer. (2)
  
2. Describe five differences between the reinsurance markets in London and Bermuda. (10)
  
3. (a) Explain the three principal tests, identified in *Insurance Company of Africa v SCOR* (1985), which the Courts said were necessary, for the reinsurer to be bound by the 'follow the settlements' clause. (6)
- (b) Explain why this clause is useful to a reinsured. (2)
  
4. Describe five advantages of electronic placing over other methods of placing reinsurance. (10)
  
5. (a) Explain retrocession and why it is used. (3)
- (b) Discuss briefly why facultative retrocession is more attractive to retrocessionaires than treaty retrocession. (5)

6. Explain:
- (a) a facultative obligatory treaty; (2)
  - (b) why an insurer would choose to use a facultative obligatory treaty as a method of reinsurance; (3)
  - (c) the advantages and disadvantages to the reinsurer from accepting a facultative obligatory treaty. (5)
7. (a) Explain the purpose of catastrophe excess of loss reinsurance. (5)
- (b) (i) Give three reasons why an insurer might choose to purchase catastrophe excess of loss reinsurance. (3)
  - (ii) Give an example of where the purchase of catastrophe excess of loss reinsurance would be appropriate. (1)
- (c) Explain how a risk excess of loss treaty might be used in combination with a catastrophe excess of loss treaty. (5)
8. The following information is available for an excess of loss treaty for the following underwriting years.

Underwriting year	Gross net premium income £	Losses at end of year £ (paid and reserved)
1	5,625,000	180,000
2	6,500,000	416,000
3	8,000,000	130,000

The premium for each year is an annual minimum and deposit premium of £200,000, adjusted at the end of each year on the burning cost from losses paid and reserved loaded by 100/80 (25%), subject to a minimum rate of 2% and a maximum rate of 6%.

Calculate, **showing all your workings**, the premium due for each year. (10)

9. State five different types of organisation that may purchase reinsurance. (5)
10. Identify the main items established under a ‘law and jurisdiction’ clause. (6)
11. (a) Outline five ways in which aggregations can occur within an aviation portfolio. (10)
- (b) Explain how aviation insurance companies use reinsurance to minimise their exposure to claim aggregations. (4)
12. (a) Give an example of an occupational disease that may result in a claim on an employers’ liability (EL) policy. (2)
- (b) Explain why occupational disease is a problem for EL reinsurers. (10)
13. Property Insurance Company (PIC) purchases the following per risk excess of loss.

Limit	£5,000,000
Excess	£1,000,000
Premium	£1,250,000
Reinstatements	One reinstatement at 100% additional premium

During the period of reinsurance PIC suffers the following losses.

1. £1,250,000
2. £5,000,000
3. £7,500,000

Calculate, **showing all your workings**, the recoveries made and reinstatement premiums paid, for each of the losses above. (9)

- 14. (a)** In the context of reinsurance, outline the function performed by a rating agency. **(4)**
- (b)** Explain why ratings are important to reinsurers. **(10)**

## PART II

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

- 15.** Following several major hurricanes, you are finding it difficult to place a property catastrophe excess of loss treaty in the reinsurance market.
- (a) Explain what alternatives the capital markets offer. **(20)**
- (b) Outline five advantages and five disadvantages of capital market solutions compared to conventional reinsurance solutions. **(10)**
- 16.** The Steamer Insurance Company is a marine hull and cargo insurer. Its maximum retained exposure is £11,000,000 any one risk after reinsurance. The managing director of the Steamer Insurance Company wants to expand into insuring energy business (for example, oil platforms and refineries) as a new line to expand the company.
- As the reinsurance manager of the Steamer Insurance Company, write a memo to the managing director regarding the new class specific risks facing the company, their reinsurance considerations, and recommend a reinsurance programme for the energy risk business. **(30)**

17. Commercial Property Insurance Company (CPIC) purchases the following surplus treaty.

A six-line surplus treaty subject to a maximum cession of £5,000,000 sum insured any one risk and a maximum one line retention of £1,000,000 any one risk.

The CPIC's table of limits for its one line retention is.

Retail risks	£1,000,000
Industrial risks	£750,000
Entertainment risks	£500,000

- (a) Calculate, **showing all your workings**, the amounts ceded to the surplus treaty and recoveries from the surplus treaty for the following sums insured and losses.
- (i) Retail property, sum insured £2,500,000, paid claim £1,500,000. (2)
  - (ii) Entertainment property, sum insured £4,000,000, paid claim £3,500,000. (2)
  - (iii) Industrial property, sum insured £5,000,000, paid claim £3,500,000. (2)
  - (iv) Retail property, sum insured £500,000, paid claims £450,000. (2)
  - (v) Industrial property, sum insured £2,000,000, paid claim £1,000,000. (2)
  - (vi) Entertainment property, sum insured £2,000,000, paid claim £2,000,000. (2)
  - (vii) Retail property, sum insured £1,250,000, paid claim £500,000. (2)
  - (viii) Entertainment property, sum insured £750,000, paid claim £400,000. (2)
- (b) CPIC have accepted a retail risk with a sum insured of £10,000,000. They place a maximum cession under the surplus treaty, and purchase proportional facultative reinsurance for the remaining risk. The risk suffers a claim of £7,000,000.
- Calculate:
- (i) the recoveries from the facultative reinsurance; (2)
  - (ii) the recoveries from the surplus treaty. (2)
- (c) If proportional facultative reinsurance had not been available, explain the alternatives available to CPIC when presented with this risk. (10)

